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**МЕТОДИЧЕСКИЕ РЕКОМЕНДАЦИИ**  
по выполнению практических работ  
по дисциплине  
**ОГСЭ.03 «ИНОСТРАННЫЙ ЯЗЫК»**

по специальности  
10.02.01 Организация и технология защиты информации

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## 1. Пояснительная записка

Дисциплина «Английский язык» является общеобразовательной дисциплиной, в процессе изучения которой обучающиеся должны приобрести определенные знания. Наряду с изучением теоретического материала по дисциплине «Английский язык» большое внимание должно быть уделено практическим занятиям. Последние представляют собой весьма важную часть в общем объеме дисциплины.

Данные методические рекомендации составлены на основе рабочей программы «Иностранный язык» по специальности 10.02.01 Организация и технология защиты информации в соответствии с обязательной нагрузкой в количестве 168 часов.

В результате освоения учебной дисциплины обучающийся должен **уметь**:

- вести диалог (диалог–расспрос, диалог–обмен мнениями/суждениями, диалог–побуждение к действию, этикетный диалог и их комбинации) в ситуациях официального и неофициального общения в бытовой, социокультурной и учебно-трудовой сферах, используя аргументацию, эмоционально-оценочные средства.
- рассказывать, рассуждать в связи с изученной тематикой, проблематикой прочитанных/прослушанных текстов; описывать события, излагать факты, делать сообщения.
- создавать словесный социокультурный портрет своей страны и страны/СТРАН изучаемого языка на основе разнообразной страноведческой и культуроведческой информации; заполнять различные виды анкет, сообщать сведения о себе в форме, принятой в стране/странах изучаемого языка.
- самостоятельно совершенствовать устную и письменную речь, пополнять словарный запас; читать аутентичные тексты разных стилей (публицистические, художественные, научно-популярные и технические), используя основные виды чтения (ознакомительное, изучающее, просмотровое/поисковое) в зависимости от коммуникативной задачи.
- понимать относительно полно (общий смысл) высказывания на изучаемом иностранном языке в различных ситуациях общения;
- понимать основное содержание аутентичных аудио- или видеотекстов познавательного характера на темы, предлагаемые в рамках курса, выборочно извлекать из них необходимую информацию, оценивать важность/новизну информации, определять свое отношение к ней.
- описывать явления, события, излагать факты в письме личного и делового характера; переводить со словарем иностранные тексты профессиональной направленности.

Студент должен **знать**:

- лексический (1200-1400 лексических единиц) и грамматический минимум, необходимый для чтения и перевода (со словарем) иностранных текстов профессиональной направленности;
- лингвострановедческую, страноведческую и социокультурную информацию, расширенную за счет новой тематики и проблематики речевого общения;
- тексты, построенные на языковом материале повседневного и профессионального общения.

В процессе освоения учебной дисциплины у обучающихся должны быть сформированы компетенции:

ОК1. Понимать сущность и социальную значимость своей будущей профессии, обладать высокой мотивацией к выполнению профессиональной деятельности в области обеспечения информационной безопасности.

- ОК2. Организовывать собственную деятельность, выбирать типовые методы и способы выполнения профессиональных задач, оценивать их эффективность и качество.
- ОК 3. Принимать решения в стандартных и нестандартных ситуациях и нести за них ответственность.
- ОК4. Осуществлять поиск и использование информации, необходимой для эффективного выполнения профессиональных задач, профессионального и личностного развития.
- ОК 5. Использовать информационно-коммуникационные технологии в профессиональной деятельности.
- ОК 6. Работать в коллективе и команде, эффективно общаться с коллегами, руководством, потребителями.
- ОК 7. Брать на себя ответственность за работу членов команды (подчиненных), результат выполнения заданий.
- ОК 8. Самостоятельно определять задачи профессионального и личностного развития, заниматься самообразованием, осознанно планировать повышение квалификации.
- ОК 9. Ориентироваться в условиях частой смены технологий в профессиональной деятельности.
- ПК 2.7 Подготовить отчетную документацию, связанную с эксплуатацией средств контроля и защиты информации.
- ПК 2.9 Использовать нормативные правовые акты, нормативно-методические документы по защите информации.

Данные методические рекомендации призваны помочь обучающимся в овладении всеми видами речевой деятельности в соответствии с требованиями программы.

Целью данных методических указаний является углубление языковых знаний, формирование навыков анализа языковых средств, расширение словарного запаса, углубление и расширение знаний и навыков употребления грамматических явлений и формирование у обучающихся речевой, языковой и коммуникативной компетенции, уровень развития которой позволяет использовать иностранный язык, как инструмент межкультурного общения, так и для целей самообразования.

## **2. Общие методические рекомендации по выполнению практических заданий**

### **2.1 Подготовка к выполнению практического задания**

Для выполнения практических заданий обучающийся должен руководствоваться следующими положениями:

1. Внимательно ознакомиться с описанием соответствующей практической работы и установить, в чем состоит основная цель и задача этой работы;
2. По лекционному курсу и соответствующим литературным источникам изучить теоретическую часть, относящуюся к данной работе.

Успешное выполнение практических заданий может быть достигнуто в том случае, если обучаемый представляет себе цель выполнения практической работы, поэтому важным условием является тщательная подготовка к работе.

### **2.2 Оформление практического задания**

Оформление практического задания является важнейшим этапом выполнения. Каждую работу обучающиеся выполняют, руководствуясь следующими положениями:

1. На новой странице тетради указать название и порядковый номер практической работы, а также кратко сформулировать цель работы;
2. Записать при необходимости план решения заданий;

3. Схемы и графики вычертить с помощью карандаша и линейки с соблюдением принятых стандартных условных обозначений;

4. После проведения практических занятий обучающиеся должны составить отчет о проделанной работе. Практическая работа должна быть написана разборчивым подчерком и выполнена в тетради с полями для проверки работы преподавателем. Итогом выполнения является устная защита работы, по вопросам, которые прописаны в конце каждой работы.

### 3. Тематическое планирование

#### 2 курс

№ п\п	Наименование тем	Кол-во часов
<b>Раздел 1.</b>	<b>Введение. Вводно-коррективный курс</b>	<b>6</b>
Тема 1.1.	Речевой этикет. Формы знакомства и приветствия. Местоимения, глаголы to be, to have.	6
<b>Раздел 2.</b>	<b>Страна изучаемого языка</b>	<b>12</b>
Тема 2.1.	Географическое положение страны изучаемого языка. Present Simple.	4
Тема 2.2.	Столица страны изучаемого языка. Past Simple	4
Тема 2.3.	Экономика страны изучаемого языка. Future Simple.	4
<b>Раздел 3.</b>	<b>Деловая поездка за рубеж</b>	<b>14</b>
Тема 3.1.	В аэропорту. На вокзале. Страдательный залог времен Simple.	4
Тема 3.2.	На таможне. Страдательный залог времен Simple.	4
Тема 3.3	В гостинице. Повторение. Подготовка к контрольной работе.	2
	<b>Контрольная работа</b>	<b>2</b>
	<b>Итоговое занятие</b>	<b>2</b>
<b>Раздел 4.</b>	<b>Введение в специальность</b>	<b>46</b>
Тема 4.1	Что такое компьютер? Применение компьютеров. Present Continuous Tense.	6
Тема 4.2.	Обработка данных. Present Continuous-Present Simple	6
Тема 4.3	Преимущества обработки данных. Past Continuous	6
Тема 4.4.	Архитектура ЭВМ. Future Continuous.	6
Тема 4.5	Программное обеспечение. Present Perfect	6
Тема 4.6.	Цифровые компьютеры. Present Perfect-Past Simple.	6
Тема 4.7.	Программирование. Past Perfect.	6
	<b>Контрольная работа</b>	<b>2</b>
	<b>Дифференцированный зачет</b>	<b>2</b>

#### 3 курс

№ п\п	Наименование тем	Кол-во часов
<b>Раздел 5.</b>	<b>Хранение информации</b>	<b>24</b>
Тема 5.1.	Запоминающее устройство. Страдательный залог времен Simple.	6
Тема 5.2.	Устройства хранения информации. Страдательный залог Continuous	6

Тема 5.3.	Компьютерная сеть. Интернет. Инфинитив.	8
	<b>Контрольная работа</b>	<b>2</b>
	<b>Итоговое занятие</b>	<b>2</b>
<b>Раздел 6</b>	<b>Защита информационных систем</b>	<b>24</b>
Тема 6.1	Система Wi-fi. Инфинитив страдательного залога.	4
Тема 6.2.	Система Bluetooth. Инфинитив активного залога.	4
Тема 6.3.	Компьютерные преступления. Сложное дополнение	4
Тема 6.4.	Шифрование данных. Сложное подлежащее.	4
Тема 6.5.	Хакеры. Подготовка к зачету.	4
	<b>Контрольная работа</b>	<b>2</b>
	<b>Дифференцированный зачет</b>	<b>2</b>

#### 4 курс

№ п\п	Наименование тем	Кол-во часов
<b>Раздел 7.</b>	<b>Вирусы</b>	<b>23</b>
Тема 7.1.	Вирусы. Причастие I.	8
Тема 7.2.	Заражение вирусами. Причастие II	6
Тема 7.3.	Антивирусное программное обеспечение. Подготовка к контрольной работе	6
	<b>Контрольная работа</b>	<b>2</b>
	<b>Итоговое занятие</b>	<b>2</b>
<b>Раздел 8</b>	<b>Восстановление данных</b>	<b>19</b>
Тема 8.1.	Восстановление системы. Герундий/инфинитив	8
Тема 8.2	Виды восстановления данных. Герундий/инфинитив. Повторение.	6
Тема 8.3.	Хищение персональных данных. Защита. Подготовка к зачету.	6
	<b>Контрольная работа</b>	<b>2</b>
	<b>Дифференцированный зачет</b>	<b>1</b>

#### 4. Содержание практических занятий

### 2 КУРС 3 СЕМЕСТР ВВЕДЕНИЕ. ВВОДНО-КОРРЕКТИВНЫЙ КУРС.

#### Практическое занятие № 1.

**Тема:** Речевой этикет. Приветствие. Глагол to be.

**Цель:** Введение и закрепление лексического и грамматического материала, совершенствование навыков говорения, аудирования, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить диалог по теме. Упр.6-9.

#### **A Informal situations (school/work friends, neighbors):**

##### **Greetings**

- Hi.
- Hey.
- Hello.
- Good morning/afternoon/evening.
- How are you?
- How is it going?
- How are you getting on?
- How are things?
- What's new?
- What's up?

##### *Possible replies*

- Fine.
- OK.
- Good.
- So, so.
- Very /pretty much the same.
- Very well, thank you.
- Getting better /worse.
- Not too bad/well, thanks. And you?

##### **Farewells**

- I've got to go. Bye.
- Take care.
- See you later.
- Must dash.
- It's getting late. I must be going.

#### **B Formal situations (co-workers, business partners):**

##### **Greetings**

- Hello, Mr/Mrs/Miss....
- Good morning/afternoon/evening.
- It's nice to meet you (again).
- How have you been?
- How do you do?

##### *Possible replies*

- I've been good, thank you.
- How do you do?

- I'm doing well.
- It's nice to meet you too.

### Farewells

- I'm sorry but I have to leave now.
- If you'll excuse me, I must be going.
- I'd better be going.
- I hope to see you soon.
- I look forward to seeing you again.

**Language help!** *How do you do* is very formal and uncommon, mostly used by older people. Usually the answer is the same  
*How have you been/ It's nice to meet you again* is only asked by people who have already met

### 1. Listen and practice the conversations. Take turns to ask and answer questions:

- |                                    |                                   |
|------------------------------------|-----------------------------------|
| - Good morning.                    | - Morning, Anna.                  |
| - Good morning, Anna. How are you? | - Hi, Dave.                       |
| - Fine, thanks. How are you?       | - How are you doing?              |
| - Good.                            | - I'm doing fine, thanks. Coffee? |
|                                    | - Yes, please.                    |

### 2. Memorize the dialogues:

- ☐ "How are you getting on?"  
 "Fine, thank you. And how are you?"  
 "Not too well."  
 "Why, what's the matter?"
  
- ☐ "It's a long time since we met last."  
 "Yes, very."  
 "I'm glad you're back. I was missing you badly."  
 "Oh, thank you. So was I."
  
- ☐ "How's John?"  
 "Very much the same."
  
- ☐ "How's Donald getting on with his article?"  
 "I'm afraid I don't know. I don't see much of him."
  
- ☐ "I really must be going".  
 "Nice seeing you. When are you off? "  
 " I must catch the 11.00 train".  
 " Hope to see you soon. Take care and give my best wishes to your brother".  
 " I will. "  
 " Bye bye. "  
 " See you. Bye. "

### 3. Ask questions to which the following could be the answers.

- Fine, thank you.
- He's doing well, thank you.
- Not too well, I'm afraid.
- Everybody's fine.
- Getting better.
- It's a long time since we met last.



g. I'm finishing it, thank you.

**4. Answer the questions.**

- a. How are you?
- b. How is your mother (father) getting on?
- c. How is everybody at home?
- d. How's your sister feeling?
- e. How are things with your aunt? I hear she was ill.
- f. How are you getting on with your study/ new job?

**5. Вставь нужную форму глагола to be:**

1. The sun.....very hot.
2. I.....happy.
3. She.....from China.
4. Mary.....a nice girl.
5. John.....a student.

**6. Сделай предложения вопросительными и отрицательными:**

1. My brother is small.
2. Mr Brown and Mr Smith are from London.
3. The houses are very big.
4. English is easy.
5. This book is interesting.

**7. Составь короткие диалоги, используя нужную форму глагола to be:**

*Example: Jane / a singer? - No, / a doctor. -Is Jane a singer? - No, she is a doctor.*

1. You / at home? - No, / in the office.
2. Your car / red? - No, / black.
3. The Kremlin / in Tokyo? - No, / in Moscow.
4. They / policemen? — No, / pilots.
5. Simon / in London? — No, / in Paris.

**8. Вставьте глагол to be в Present, Past или Future Simple**

1. Yesterday we... at the theatre.
2. Where ... your mother now? — She ... in the kitchen.
3. Where ... you yesterday? — I ... at the cinema.
4. When I come home tomorrow, all my family ... at home.
5. ... your little sister in bed now? — Yes, she ...
6. ... you... at school tomorrow? — Yes I ...
7. When my granny... young, she ... an actress.
8. My friend ... in Moscow now.

**Практическое занятие № 2.**

**Тема:** Речевой этикет. Знакомство. Представление себя и других. Глагол to have.

**Цель:** Введение и закрепление лексического и грамматического материала, совершенствование навыков говорения, аудирования, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Представить себя и своего друга, упр.9-12.

**1. Countries and nationalities. Tick the countries you know. Write the missing letters.**

<b>countries</b>	<b>nationalities</b>
I'm from ...	I'm...
Brazil	Brazili <u>a</u> <u>n</u>
Australia	Australi _ _
Argentina	Argentini _ _

the USA	Americ _ _
Germany	Germ _ _
Italy	Itali _ _
Mexico	Mexic _ _
Russia	Russi _ _
the UK	Brit i s h
Spain	Span _ _ _
Poland	Pol _ _ _
Turkey	Turk _ _ _
Japan	Japan _ _ _ _
China	Chin _ _ _ _
France	French

**2. Fill in the gaps. Read and practice the conversations. Where do the conversations take place?**

Receptionist: Good morning. What's your name please?

Jane: It's Jane Smith.

Receptionist: And where are you from?

Jane: I'm from . . . .

Receptionist: What are your names, please?

Joe: My name's Joe Hill and this is Susan West.

Receptionist: Where are you from?

Joe: We are from . . .

Receptionist: Welcome to the conference. You're in room C.

**4. Topical vocabulary. Look at the form for an Internet café chat room. Put the words into the correct box.**

doctor student single Poland businessman/woman  
learning English films the USA married  
Brazil music sport

<b>Job</b>
doctor

<b>Interests</b>
learning English

<b>Country</b>
Poland

<b>Marital status</b>
single

**5. Read the E-mails and put them into correct order.**

**To Vanessa**

Hello Vanessa. My name is Tom and I'm interested in English. I'm a businessman from Poland. My brother is married to an American woman. They are doctors. I'm in San Francisco with him for one month. Tell me more about you.

**To Vanessa**

Hello again, Vanessa. I'm 30 years old and I'm single. I'm in an Internet café on 5<sup>th</sup> Street. Where are you?

**To Tom**

Hi. My name is Vanessa. I'm a doctor from Brazil but I'm on holiday in San Francisco in the USA. I'm interested in learning English. Please write to me (in English!).

**To Tom**

Hi Tom. Thank you for your E-mail. I'm 28 years old. I'm single and I'm interested in sport and films. Now I'm in an Internet café on 5<sup>th</sup> Street too!

**6. Are these sentences true (T) or false (F)?**

1. Vanessa is 20 years old and she is married.
2. She is on holiday in Madrid. She is Chinese.
3. She is interested in sport and films.
4. Tom is French and he is married to an American woman.
5. She is a doctor from Brazil.
6. Tom is interested in learning Spanish.

**Do you have penpals/penfriends? What countries are they from?**

**7. RECORDING 1. Listen to the people's introductions. Introduce yourself, follow the plan.**

**1. Greeting.**

Hi/Hello/Good afternoon....

**2. First name/last name.**

My first/last name is.....

**3. Place of living.**

I'm from .....

**4. Age.**

I'm .....

**5. Marital status.**

I'm married/single.

**6. Occupation.**

I'm a first year student at .....

**7. Hobby/Interests.**

My hobby is .../I'm interested in.....

**8. Introduce your classmate. Follow the plan. Pay attention to the verbs and pronouns.**

**9. Выбери нужную форму (have got — has got):**

1. Jack and Mary..... a car.
2. We..... many friends.
3. Mr Smith.....a big family.
4. Mr and Mrs. Brown.....a new house in the city.
5. Ted.....many toys.

**10. Сделай предложения вопросительными и отрицательными:**

1. Michael and Sam have got three cousins.
2. We have got a new TV set.
3. I have got a guitar.
4. Doctor Edwards has got two children.

**11. Составь предложения по образцу:**

	Jane and Sally	Mr White	The Browns	Tom Canty	Kevin
Balcony				+	
Car	+	+			+
Dog	+		+	+	+

Cat		+		+	
-----	--	---	--	---	--

**Example:** Jane and Sally haven't got a cat, but they have got a dog.

1. Mr White.....
2. The Browns.....
3. Tom Canty.....
4. Kevin.....

**12. Закончи предложения:**

1. They have got a new car, but.....
2. Nick has got two small sisters, but.....
3. I have got a big house, but.....
4. Susan has got many pencils, but.....
5. I have got....., but.....

**Практическое занятие № 3.**

**Тема:** Речевой этикет. Формы обращения.. Местоимения.

**Цель:** Введение и закрепление лексического и грамматического материала, совершенствование навыков говорения, аудирования, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Упр.3, ответить на вопросы, упр.4-7.

**1 How would you address each of the following situations.**

1. An old man you don't know.
2. A policeman.
3. Your foreign colleague, whose name is Sam Smith. He is 45.
4. His wife. Her name is June. She is 38.
5. His daughter Ella. She is not married.
6. His daughter Mary who is married to Dr. Robert Rice.
7. Her husband.
8. Your friend's professor Bruce Baker.
9. Lily Lewis whose marital status you don't know. She is in her early thirties.

**2 Match the phrases from two columns.**

- |  |   |
|--|---|
| 1. Hello, John. How is it going?                           | A. Good morning, Mrs Baker. It was very kind of you to invite me. |
| 2. Sally, this is Jane.                                    | B. Hello, Jane. Pleased to meet you.                              |
| 3. Do you know George?                                     | C. Hello, Pete. It's nice to see you again.                       |
| 4. Miss Smith, I'd like to introduce you Mr Brown.         | D. No, I don't believe I have.                                    |
| 5. Pam, say hello to Pete.                                 | E. I'm very well, thank you.                                      |
| 6. How do you do?  | F. How do you do.   |
| 7. I don't believe you've met Miss Baker, have you?        | G. How do you do, Miss Smith?                                     |
| 8. Good morning, Mrs Smith. I'm so pleased you could come. | H. They are fine, thank you. And how are your parents?            |
|  | I. No, can't say I do.  |

**3 Read the following conversation to find out: 1) who the speakers are; 2) where it is taking place. Suggest the suitable title for it.**

Ted: Excuse me, you must be Tom.

Tom: Sorry?  
 Ted: You are Tom, aren't you? You've just come from London, haven't you?  
 Tom: Yes, that's right. I'm Tom Anderson.  
 Ted: Good, and I'm Ted Royal.  
 Tom: How do you do.  
 Ted: How do you do. That's Mrs Royal and our son. Liz, Allan, come and say hello to Tom.  
 Liz: Hello, Tom, did you have a good flight?  
 Tom: Oh, yes, very nice, thank you. Hello, Allan.  
 Allan: Hello.  
 Ted: Come on, Tom, we've got the car outside. Liz, did you find a baggage trolley for Tom?  
 Liz: I'm afraid, I didn't. I couldn't find one anywhere.  
 Ted: Never mind, give me one of your bags, Tom.  
 Tom: Oh, thank you Mr Royal.  
 Ted: By the way, I hope you don't mind me calling you Tom?  
 Tom: No, of course not.  
 Liz: And Ted, don't you think it would be better if Tom called us by our first names?  
 Ted: Yes, of course."Mr Royal" makes me feel like a grandfather.

**Answer the following questions.**

1. Why did Ted say "Excuse me"? 2. What difference would it have made if he hadn't used this expression? 3. Why did Tom say "Sorry"? 4. Why do you think Tom didn't say "How do you do" to Allan? 7. Would he have sounded too formal?

**4. Вставь личные местоимения:**

1. Sally is ten. ....is in the fifth form.
2. Mr Brown isn't French. ....is English.
3. Mark and I are in the same class. ....are friends.
4. Are you a pupil? — Yes, ..... am.
5. Are.....from England, Frank?

**5. Вставь притяжательные местоимения (*my, his, her, its, our, their, your*), изменив предложения (по образцу):**

1. *Jane has got a white rabbit. — Her rabbit is white.*
2. Nick has got two young sisters. —.....
3. We have got a young English teacher. —.....
4. Susan has got a very nice father. — .....
5. You have got a new book. -.....
6. I have got..... —.....

**6. Замените выделенные слова на местоимения в объектном падеже:**

1. *We are waiting for our guests. — We are waiting for them.*
2. Alice saw *a white rabbit* in the field.
3. Phone *my brother* and me.
4. Don't tell *the story* to *your sister*.
5. He gave *fish* to *his* cat.
6. Sandra is cooking *food* for the party.

**7. Вставь указательные местоимения (this/that - these/those):**

1. Are (that/those) boxes heavy?
2. Does (this/these) woman like coffee?
3. Do (those/that) girls come from Spain?
- 4.(That/those) tall girl is very pretty.

## Практическое занятие № 4.

**Тема:** Географическое положение Великобритании. Present Simple.

**Цель:** Введение и закрепление лексического и грамматического материала, совершенствование навыков говорения, аудирования, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Выучить лексику, перевести текст, выполнить упражнения к тексту, упр.10-13.

### 1 Discuss the following questions.

1. What is the difference between the names “Great Britain” and “the United Kingdom”?
2. What countries does Great Britain include? What are they? What are their capitals?
4. What do you imagine when you think of Britain and its people?

### 2 Find geographical names in the text and translate them. Do we use the articles with them?

### 3 Fill in the gaps if necessary.

1. The official name of ... Great Britain is ... United Kingdom of ...Great Britain and ...Northern Ireland.
2. ...U. K consists of...England, ...Scotland, ...Wales and ...Northern Ireland.
3. The western coast of ...Great Britain is washed by ... Atlantic Ocean and ... Irish Sea.
4. ... English Channel separates the south-east of ... Great Britain from ...France the narrower part of which is called ... Strait of Dover.
5. The climate in Great Britain is generally mild, humid and temperate due to the influence of ... Gulf Stream.
6. There are many rivers in Great Britain but they are not long. The longest of them is ...Thames, which is a little over 200 miles.

### 4 Find the cardinal directions in the text.

север - северный - на севере - к северу от;

юг - южный - на юге - к югу от;

запад - западный-на западе - к западу от;

восток – восточный - на востоке - к востоку от.

### 5 Translate the sentences into Russian.

1. Горы находятся *на западе* и *севере* страны.
2. Низменности *на юге* и *востоке*.
3. *Западное* побережье Великобритании омывается Атлантическим океаном и Северным морем.
4. Ла-Манш отделяет *юго-восточную* часть Великобритании от Франции.

### 6 Topical vocabulary. Read and translate.

red rose	красная роза
thistle	чертополох
daffodil	нарцисс
shamrock	трилистник
mainland	материк
island	остров
to consist of /include	состоять из/включать
the English Channel	пролив Ла-Манш
the Strait of Dover	Па-де-Кале или Дуврский пролив (узкая часть Ла-Манша)
the Gulf Stream	теплое течение Гольфстрим

mild	мягкий
humid	сырой, влажный
temperate	умеренный
weather forecast	прогноз погоды
lowlands	низменности
mountains	горы
the House of Commons	палата общин
the House of Lords	палата лордов
highly developed country	высокоразвитое государство
parliamentary monarchy	парламентская монархия
to mine mineral resources	добывать минеральные ресурсы
coal	уголь
census	перепись населения

## 7 Reading and speaking. Group work.

### Group 1. Read the text, find information about the geographical position and climate of Great Britain. Say whether it is true (T) or false (F).

1. The official name of Great Britain is the United Kingdom of Great Britain and Northern Ireland.
2. The UK consists of three parts – England, Scotland, and Wales.
3. Great Britain officially includes England, Scotland and Wales and Northern Ireland.
4. The English Channel separates the south-east of Great Britain from France.
5. The climate in Great Britain is generally hot and dry due to the influence of the Strait of Dover.
6. The English say that they have three variants of weather. It is very changeable.

### Group 2. Read the text, find information about the capitals, ports, emblems and the political system of Great Britain. Say whether it is true (T) or false (F).

1. The longest river of Great Britain is the Severn, which is a little over 200 miles.
2. Britain's principal ports are London, Liverpool, Manchester, Hull, Glasgow.
3. The capital city of England is Liverpool.
4. The national emblem of Scotland is a red rose.
5. Great Britain is rich in coal which is mined mostly in England.
6. The UK is the constitutional monarchy. The official head of the state is the Prime Minister.

## GREAT BRITAIN

The official name of the country we usually call England is the United Kingdom of Great Britain and Northern Ireland. The U K is situated on the group of islands lying to the west of the continent of Europe. The UK consists of England, Scotland, Wales and Northern Ireland. The total land area of the United Kingdom is 244,000 square kilometres. The population of the country according to the 2011 census is about 63,182,000. The mountains are in the west and the north of the country. There are lowlands in the south and the east. Great Britain officially includes England, Scotland and Wales.

The western coast of Great Britain is washed by the Atlantic Ocean and the Irish Sea. The eastern coast is washed by the waters of the North Sea. The English Channel, which is 32 kilometres wide, separates the south-east of Great Britain from France the narrower part of which is called the Strait of Dover. So Great Britain is surrounded by water. Not far from the British Isles there is warm Gulf Stream. So, the climate in Great Britain is generally mild, humid and temperate due to the influence of the Gulf Stream. This humid and mild climate is good for plants. The trees and flowers begin to blossom early in spring. In January average temperature is from 3 to 7 degrees below zero and in July it is from 16-17 degrees above zero.

British people say: "Other countries have a climate, in England we have weather." The weather in Britain changes very quickly. One day may be fine and the next day may be wet. The morning may be warm and the evening may be cool. The English also say that they have three variants of weather: when it rains in the morning, when it rains in the afternoon or when it rains all day long. Every daily paper publishes a weather forecast. Both the radio and television give the weather forecast several times each day.

There are many rivers in Great Britain but they are not long. The longest of them is the Thames, which is a little over 200 miles. Britain's principal ports are London, Liverpool, Manchester, Hull, Glasgow.

The capital city of England is London. The capital city of Scotland is Edinburgh. The capital city of Wales is Cardiff. Belfast is the capital of Northern Ireland.

The national emblem of England is a red rose. The national emblem of Scotland is a thistle. The national emblem of Wales is a daffodil. The national emblem of Northern Ireland is a shamrock.

Great Britain is not rich in mineral resources, except coal, mined mostly in Wales. But it is a highly developed country.

The UK is the parliamentary monarchy. Legislative power belongs to her Majesty Queen Elizabeth II, and the Parliament, which consists of the House of Commons and the House of Lords. Officially the Head of the State is the Queen.

## **8. RECORDING. Choose the right variant.**

### **1. The United Kingdom of Great Britain and Northern Ireland includes...**

- a) England and Scotland;
- b) Wales and Northern Ireland;
- c) England, Scotland, Wales and Northern Ireland;

### **2. The Prime Minister lives ...**

- a) at Buckingham Palace;
- b) near the Stonehenge;
- c) at 10 Downing Street;

### **3. The Queen lives in ...**

- a) Oxford;
- b) the Parliament;
- c) Buckingham Palace;

### **4. .... is a birthplace of William Shakespeare.**

- a) Liverpool;
- b) Stratford - upon - Avon;
- c) Edinburgh;

### **5. .... is a home of The Beatles.**

- a) London;
- b) Cardiff;
- c) Liverpool;

### **6. .... and ... is famous for the Universities.**

- a) Oxford and Cambridge;
- b) Belfast and Cardiff;
- c) Stratford - upon - Avon and London;

### **7. About 2% of the working population are...**



- a) businessmen;
- b) farmers
- c) teachers;

**8. In Wales ..... is very popular.**

- a) Kensington Garden;
- b) the Snowdon National Park
- c) Hyde Park;

**9. Welsh people speak...**

- a) English;
- b) both English and Welsh;
- c) English and French;

**10. Over ... million tourists come to Britain every year.**

- a) 28;
- b) 38;
- c) 48;

**11. What is Stonehenge? It is...**

- a) a clock;
- b) a temple;
- c) a temple, or a clock, or a calendar. Nobody knows.

**12. Britain is an island. In fact there are over ... islands.**

- a) 800;
- b) 900;
- c) 1000;

**9 Speaking and discussion.**

1. What place in Britain would you like to visit most of all and why?
2. Would you like to live in Britain? Why/why not?

**10 Put the verbs in the Present Simple form.**

1. One fly \_\_\_\_\_ (to fly) , two flies \_\_\_\_\_ (to fly).
2. One girl \_\_\_\_\_ (to cry), four girls \_\_\_\_\_ (to cry).
3. When a wolf \_\_\_\_\_ (to see) the moon, it \_\_\_\_\_ (to begin) to howl.
4. Wolves and sheep \_\_\_\_\_ (to be) never friends.
5. Our hens \_\_\_\_\_ (to lay) a lot of eggs.
6. Boys \_\_\_\_\_ (to fight) and \_\_\_\_\_ (to shout).
7. That boy \_\_\_\_\_ (to try) to catch some balls.
8. These girls \_\_\_\_\_ (to try) to run away from an angry turkey.

**11. Yan is at a summer camp in Poland. Write what he usually does in the camp. Put the verbs in bracket in the correct form.**

1. He \_\_\_\_\_ (get) up at 7.
2. He \_\_\_\_\_ (have) his English lesson every day.
3. He \_\_\_\_\_ (speak) English to his friends.
4. He \_\_\_\_\_ (play) board games in the afternoon.
5. Sometimes he \_\_\_\_\_ (swim) in the lake.
6. He often \_\_\_\_\_ (go) hiking.
7. He sometimes \_\_\_\_\_ (sit) by the camp fire in the evenings.
8. He never \_\_\_\_\_ (go) on a trip without his friends.

**12. Put the verbs in the Present Simple form.**

*go, like, love, watch, read, like, walk, come, do, watch*

My name's Pavel. In the evening I usually (1) \_\_\_\_\_ my homework. Then I (2) \_\_\_\_\_ TV or video. I (3) \_\_\_\_\_ action films! They are super! Then I (4) \_\_\_\_\_ my dog. After that I (5) \_\_\_\_\_ home, (6) \_\_\_\_\_ a book and (7) \_\_\_\_\_ to bed. My sister is little. She doesn't (8) \_\_\_\_\_ action films. She (9) \_\_\_\_\_ cartoons. She (10) \_\_\_\_\_ them every day.

**13. Look at the chart and write about Ellie.**

	sports programmes	comedies	action films	the news
Often		✓	✓	
Sometimes	✓			
Rarely	✓			
Never				✓

Ellie often watches comedies.

\_\_\_\_\_.

**Практическое занятие № 5.**

**Тема:** Географическое положение Великобритании. Present Simple.

**Цель:** Закрепление и систематизация лексического и грамматического материала, совершенствование навыков говорения, аудирования, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Перевести текст, сделать презентацию о Великобритании. Упр.4,5.

**PLACES TO GO. WALES**

Wales is a part of the United Kingdom and it's famous for its beautiful scenery, music festivals and friendly people. It has its own language, Welsh, but nearly everyone speaks English. Wales is also famous for its long place names like Llanfairpwllgwyngyllgogerychwyrndrobwll-llantysillioogoch! The best time to visit is from June to September.

Cardiff is a capital city. It's a busy, modern city on a river called the Taff. There is a beautiful castle in the center of the city and some interesting museums. St. David's Hall is a good place for traditional Welsh music. You can also go to concerts and sports events at the amazing Millennium Stadium.

Brecon Beacons National Park is a great place for walks and picnics. You can walk along Offa's Dyke in the Black Mountains and enjoy the wonderful views, or go fishing at Llangorse Lake, the largest natural lake in the south Wales.

Snowdonia National Park is in the north of the country. Every year about 500.000 people climb Snowdon, the highest mountain in Wales. You can also travel up the mountain by train!

Llandudno is an old seaside town on the north coast. It's famous for its long beaches and beautiful scenery, and is a good place to go surfing. You can also go surfing at many places in the south of the country like Broadhaven and Tenby.

### Topical vocabulary

the Taff – река Тафф

St. David's Hall - Сент-Дэвид Холл, центр проведения выступлений местных и мировых звезд, конференций и представлений из области современного искусства.

Millennium Stadium – стадион Миллениум

Brecon Beacons National Park – национальный парк Брекон-Биконс

Offa's Dyke – дамба Оффы, бывшая граница между Англией и Уэльсом

the Black Mountains – Черные горы

Llangorse Lake – озеро Ллэнгорс

Snowdonia National Park – национальный парк Сноудония

Llandudno – Лландидно, морской курорт и город в Уэльсе

Tenby – Тэнби, город на юго-западе

### 1 Are these sentences true or false?

1. Wales is a country in the United Kingdom.
2. They speak two languages in Wales.
3. August isn't a good time to visit.
4. You can listen to music at the Millennium Stadium.
5. Snowdon is in the Black Mountains.
6. You can travel by train up Snowdon.
7. Llandudno is a modern town.
8. Wales is a good place for surfing.

### 2. Make notes about Wales.

facts about the country	places to visit and things to do

### 3. Do you have your dream country you would like to visit? Tell about places to visit and things to do.

### 4. Поставьте подлежащее и сказуемое в 3-е лицо единственного числа.

1. I always listen to the radio in the morning. – *He always **listens** to the radio in the morning.*
2. I sometimes write letters to my school friends.
3. I always drink tea for breakfast.
4. I often watch football matches on TV.
5. I live in Moscow.

## 5. Поставьте глаголы в Present Simple.

Adam.....(1. be) a young man from Bristol. He..... (2. live) in a new big house near the city centre. He.....(3. be) a student at the university. He.....(4. study) History and Literature. Every day he.....(5. go) to the university by bus. He.....(6. have) many friends and they always.....(7. go) to the park on Sundays. In the evenings they sometimes.....(8. go) to the disco or to the cinema. Adam.....(9. not like) going to the theatre.

### Практическое занятие №6.

**Тема:** Столица страны изучаемого языка. Лондон. Past Simple.

**Цель:** Введение и закрепление лексического и грамматического материала, совершенствование навыков говорения, аудирования, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Перевести текст, выполнить задания к тексту, выполнить упр. 6-9.

#### 1 Answer the questions.

1. What do you know about London?
2. Have you ever been to London? Would you like to visit it?
3. What famous London sights do you know?

#### 2 Topical vocabulary. Read and translate.

the Tower of London - Лондонский Тауэр, крепость на северном берегу Темзы;

the Houses of Parliament – Парламент;

Trafalgar Square – Трафальгарская площадь;

Kensington Gardens - Кенсингтонский парк, примыкающий к Гайд парку;

Westminster Abbey- Вестминстерское Аббатство;

Hyde Park – Гайд парк, королевский парк в центре Лондона;

Madame Tussaud's Museum – музей мадам Тюссо;

Poet's Corner – Уголок поэтов в Вестминстерском Аббатстве;

the Royal Exchange – Королевская биржа;

Big Ben – Биг Бен, самый большой из пяти колоколов Вестминстерского дворца (часто это название относят к часам и часовой башне в целом);

the British Museum - Британский музей;

the National Gallery – Национальная галерея;

the river Thames – река Темза.

### LONDON

London is the capital of the United Kingdom, its economic, political and cultural centre. It is one of the world's most important ports and one of the largest cities in the world. London with its suburbs has a population about 11 million people.

It is situated on the river Thames about forty miles from the mouth and is divided into two parts by the river: north and south.

The history of London goes back to Roman times. It has been a capital for nearly a thousand years. Due to favourable geographical position a small town soon became an important trade centre.

Actually London can be divided into several parts. First there is the City of London. It's the financial and business centre of Great Britain. It's the district where most offices and banks are concentrated: the Royal Exchange and the Bank of England are here, too. The East End is the district where mostly working people live. A lot of docks, factories, poor houses are concentrated here. The old port is now called "Docklands".

The West End makes a great contrast to the working district of London. It is full of richest hotels, largest supermarkets, best cinemas and concert halls. It is famous for its beautiful parks and gardens such as Hyde Park or Kensington Gardens. Many ancient buildings still stand here.

Another important district of London is Westminster where most of government buildings are located. Westminster Palace is the seat of the British Parliament where the country's leaders speak. The Houses of Parliament stand beside the river Thames. On the highest tower there is the most famous and largest clock of the country - Big Ben.

Standing not far from the Houses of Parliament, Westminster Abbey is a symbol of England. The legend says that Westminster Abbey was founded by St Peter himself but we know it was built by King Edward in 1065. The coronation of all British Kings and Queens takes place in Westminster Abbey. It is also famous for its Poet's Corner where many outstanding people - statesmen, painters, and poets were buried there. Among them Tennyson and Geoffrey Chaucer, the first English national poet, world famous scientists Isaac Newton Charles Darwin, etc.

Every year millions of tourists come to London to visit the places of interests. They make sightseeing tours of the city, visit the Trafalgar Square, the British Museum, the National Gallery, Madame Tussaud's Museum of waxworks, etc. They also visit the most ancient historic monuments dating back to Roman times such as the Tower of London which had been a fortress, a prison and a royal palace. At present it is one of the most interesting museums of GB. Now the King and the Queen of Britain do not live in the Tower. When the Queen is in London, she stays in Buckingham Palace, her official residence.

### **3 Reading and speaking. Group work.**

#### **Group 1. Find information about the parts of London. Say are these sentences true or false (T/F)?**

1. London consists of several parts: the City, the West End, the East End, Westminster.
2. The West End is an industrial district of London. It's the district where most offices and banks are concentrated.
3. The East End is populated by working class families. It is full of richest hotels, largest supermarkets, best cinemas and concert halls.
4. The City is a financial center of London.
5. The West End is famous for its beautiful parks and gardens such as Hyde Park or Kensington Gardens.
6. Westminster is a district of London where most of government buildings are located.

#### **Group 2. Find information about the sights of London. Say are these sentences true or false (T/F)?**

1. Westminster Palace is the seat of the British Parliament where the country's leaders speak.
2. Westminster Abbey is a symbol of Edinburgh.
3. Buckingham Palace stands beside the river Thames.
4. The coronation of all British Kings and Queens takes place in Westminster Abbey.
5. The Tower of London had been a royal palace.
6. When the Queen is in London, she stays in Harrods, her official residence.

### **4. RECORDING. Choose the right variant.**

#### **1. London is on the river ...**

- a) Severn;
- b) Taff;
- c) Thames;

#### **2. There are ... bridges in London.**

- a) 29;
- b) 39;
- c) 49;

**3. The most famous bridge in London is...**

- a) Millennium Bridge;
- b) Cannon Street Railway Bridge;
- c) Tower Bridge;

**4. "The Tube" is ...**

- a) a black taxi;
- b) the Underground;
- c) a red bus;

**5. Madam Tussaud's is..**

- a) the National Gallery;
- b) the British Museum;
- c) a museum of wax models;

**6. The most famous store in Britain is...**

- a) Marks and Spenser;
- b) Harrods;
- c) House of Fraser;

**7. Covent Garden is ...**

- a) a place for growing flowers;
- b) a place for shopping and a center of London street life;
- c) a place for playing football.

**What do people like about London?**

**Where can people relax and have fun in London?**

**5. Make notes about London.**

facts about the city	places to visit and things to do

**What do you like about London? Would you like to visit it?**

**6. Write the Past Simple of the following words:**

open - opened	regret - .....	cry - .....	stay - .....
love - .....	quarrel - .....	fry - .....	travel - .....
plan - .....	drop - .....	arrive - .....	close - .....
empty - .....	die - .....	play - .....	tidy - .....

**7. Look at the list of irregular verbs at the back of the book and complete the table:**

Infinitive	Past	Infinitive	Past
go	.....	.....	broke
have	.....	.....	cut
.....	came	take	.....
be	.....	.....	stole

wake	.....	drink	.....
meet	.....	.....	put
.....	sang	make	.....
speak	.....	.....	run
.....	told	begin	.....

### 8. Underline the verbs in Past Simple.

In the summer I visited my grandparents. We went to the forest, swam in the river, went fishing, read books, went to the cinema, and watched TV all the time. I visited my friends, played football, listened to music, worked in the fields, went boating, and had a good time. I picked berries and mushrooms. I lay on the sand.

### 9. Put the verbs in Past Simple.

*be (2), feed, take, start, visit, listen*

The children went to London. The Tour \_\_\_\_\_ at Hyde Park in the morning. The children \_\_\_\_\_ the ducks and squirrels there. Then they \_\_\_\_\_ photos of Trafalgar Square. The next stop \_\_\_\_\_ the British Museum. They also \_\_\_\_\_ the Tower of London. The children \_\_\_\_\_ to the famous bell Big Ben. In the evening they \_\_\_\_\_ very tired.

### Практическое занятие №7.

**Тема:** Столица страны изучаемого языка. Лондон. Past Simple.

**Цель:** Закрепление и систематизация лексического и грамматического материала, совершенствование навыков говорения, аудирования, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Перевести текст, сделать презентацию о Лондоне/его достопримечательностях. Упр. 2-6.

#### BAKER STREET

**221b Baker Street, London.** This address is famous all over the world as the greatest detective Mr. Sherlock Holmes and his friend Doctor Watson lived there for 23 years from 1881 to 1904. The house itself was built in 1815. It is a two-storied building. The rooms are exactly the same as they were when Sherlock Holmes lived and worked there. The Sherlock Holmes museum was opened on March 27, 1990. In every room in the museum there are exhibits reminding visitors of various stories.

Sir Arthur Conan Doyle wrote 60 Sherlock Holmes adventures – four long novels 56 short stories. It is allowed to examine every item take pictures everywhere in the museum. The role of Mrs. Hudson has not been forgotten. On the ground floor there is Hudson's old English restaurant serving traditional English food. The museum is absolutely remarkable. Sir Arthur Conan Doyle helped us to see the brilliant detective and also the late 19<sup>th</sup> century life- style of professional gentlemen through the Sherlock Holmes stories.

#### 1. Answer the following questions.

1. Who lived at 221 b Baker Street?
2. When was the house built?
3. When was the museum opened?
4. How many stories and novels did Sir Arthur Conan Doyle write?
5. What do you know about Sherlock Holmes and Doctor Watson?
6. What books by Sir Arthur Conan Doyle did you read?
7. What films about Sherlock Holmes and Dr. Watson did you see?

#### 2. Look at what Maria did and didn't do last Sunday. Then write sentences:

- wake up late –                      have lunch with her grandparents —  
do her homework +                      take her dog out for a walk +

speak to her friend –                    help her mother make dinner +

**3. Imagine your friend works in the zoo. Write what he did yesterday. Use the following phrases.**  
to come up to all the cages, to open them, to talk to the animals, to wash some of the animals, to give them food, to clean the cages, to bring water for the animals, to close the cages

**4. Ask and answer questions what people did or didn't do yesterday. Then ask your partner questions to fill in the table about him/her:**

	go for a walk	play golf	write a letter	wash the car
<b>Peter</b>	+	+		
<b>Mr and Mrs Page</b>	+		+	+
<b>Your partner</b>				

1. Peter/go for a walk? *Did Peter go for a walk yesterday? Yes, he did.*
2. Peter/play golf? .....
3. Peter/write a letter? .....
4. Mr and Mrs Page/play golf? .....
5. Mr and Mrs Page/wash the car? .....

**5. Use the time expressions below to write true sentences about yourself:**

three months ago	yesterday	last weekend	in 2014	last Tuesday
------------------	-----------	--------------	---------	--------------

1. I went to a pop concert three months ago.
2. ....
3. ....
4. ....
5. ....

**6. Write questions in Past Simple.**

Kim: What \_\_\_\_\_ (you do) last night, Lisa?

Lisa: I went to the cinema.

Kim: What film \_\_\_\_\_ (you see)?

Lisa: Shrek.

Kim: Who \_\_\_\_\_ (you go) with?

Lisa: Pete and Zoe.

Kim: \_\_\_\_\_ (you enjoy) it?

Lisa: Well, the special effects were brilliant, but the story wasn't very good.

Kim: What time \_\_\_\_\_ (it finish)?

Lisa: At ten o'clock.

Kim: What \_\_\_\_\_ (you do) after the film?

Lisa: We went for a pizza.

### Практическое занятие № 8.

**Тема:** Экономика страны изучаемого языка. Великобритания. Future Simple.

**Цель:** Введение и закрепление лексического и грамматического материала, совершенствование навыков говорения, аудирования, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.



**Задание:** Перевести текст, выполнить задания к тексту. Выполнить упр.6-8.

**1 Do you understand the difference between imports and exports? Match the words from two columns.**

- |                      |   |
|----------------------|---|
| 1) Imports           | a) goods which a country sells to other countries;  |
| 2) Exports           | b) services sold to other countries;                |
| 3) Invisible exports | c) services bought from other countries;            |
| 4) Invisible imports | d) goods which a country buys from other countries. |

**2 An important part of Britain's overseas trade consists of invisible export. Divide the following into the categories: a visible import, an invisible import, an invisible export.**

- a) A Frenchman spends a week in Edinburgh and goes sightseeing;
- b) A Londoner buys a Japanese-made car;
- c) A Russian buys Lipton tea;
- d) A British company books a group holiday to Greece for its workers;
- e) A student from Russia takes an English course in London;
- f) Russian people watch a British serial.

**3 Topical vocabulary. Read and translate.**

Gross domestic product (GDP) – валовый внутренний продукт;

Gross national product (GNP) – валовый национальный продукт;

To be based on – быть основанным на ч/л;

To employ workforce – нанимать рабочую силу;

Account for – насчитывать;

Branch of industry – отрасль промышленности;

Cotton/woolen industry – хлопчатобумажная/шерстяная промышленность;

Coal-mining – добыча угля;

Electric power industry – энергопромышленность;

Ferrous metallurgy – черная металлургия;

Private enterprises – частные предприятия;

Naval and industrial power – морская и промышленная держава;

Shipbuilding – кораблестроение;

Civil aviation – гражданская авиация;

Manufacturing – производство;

Agriculture – сельское хозяйство;

Play a vital/important role – играть важную роль;

National income – национальный доход;

Retail and wholesale trade – розничная и оптовая торговля;

Natural resources – минеральные ресурсы;

Valuable deposits – ценные запасы/залежи;

Trade deficit – дефицит;

Raw materials – сырье;

Granite – гранит;

Copper – медь;

Zinc – цинк;

Salt – соль;

**4. Pick up the names of the cities, countries, organizations from the text. Do we use articles with them?**

Great Britain is a highly-developed naval and industrial power. Its economy was primarily based on private enterprises. The government controls the coal-mining and electric power industries, ferrous metallurgy and shipbuilding. Part of public transport, civil aviation and national bank are also managed by the state.

The main sectors of British economy are manufacturing, services and agriculture. The share of industry in GNP is 11 times more than that of agriculture. Manufacturing plays a vital role in British economy. It accounts for 1/5 of the GNP and employs less than 1/3 of the workforce.

The rise of Great Britain as an industrial nation was partly due to the presence of considerable mineral resources, the most important of them being coal and iron. Next to coal and iron the chief minerals found on the British Isles are the building stone, marble, granite, slate, lead, tin, copper, zinc, salt and china clay. But in the course of the last hundred years many of Britain's most valuable deposits have been worked out.

Big cities and towns such as London, Glasgow, Manchester, Liverpool, Newcastle, Sheffield and Birmingham have enterprises of nearly all branches of industry. The main centres of cotton and woolen industry are Leeds, Bradford and Manchester.

Services play an important role in British economy and make up an increasing proportion of the national income. They account for about 60 per cent of gross domestic product (GDP) and 68 per cent of employees. This sector includes health, education, retail and wholesale trade, tourism, financial and business services, insurance, transport, etc.

In the 19th century Britain dominated international trade, accounting for about one-third of world's exports. Early in the 20th century its position changed. The volume of world's exports increased. With a large population, small land area, and few natural resources, the country depends on foreign trade to supply the raw materials for English factories and to provide a market for the sale of the thousands of types of manufactured goods produced by English industries.

The United Kingdom's principal exports are vehicles, machinery, manufactured goods and textiles. Its main exports are food stuffs and most of the raw materials for industry. Britain imports half the food it needs.

The United Kingdom's main trade partner is the EU. Some 58 percent of the kingdom's exports go to EU nations. Its main EU partners are Germany, which accounts for 12 percent of exports; France, with 12 percent; and the Netherlands with 8 percent. The United Kingdom's largest single market is the United States, which accounts for 13 percent of its exports. The United States also provides 14 percent of the kingdom's imports.

For several decades, the United Kingdom has had a trade deficit, as it has imported more goods and services than it has exported. In 1998, the trade deficit amounted to US\$35 billion or 1.5 percent of GDP.

The United Kingdom has been a member of the European Free Trade Association (E.F.T.A.) since 1959, and a member of the European Economic Community (E.E.C.) since 1973.

**5 Complete the sentences, using the information from the text.**

1. The British government controls ... .. .
2. The main sectors of British economy are .... .. .
3. The most important mineral resources of Great Britain are .... .. .
4. The main centers of cotton and woolen industry are ... .. .
5. The service sector includes .... .. .
6. The United Kingdom's principal exports are ... .. .
7. Its main EU partners are ... .. .

**6. Complete the sentences.**

won't let      'll take      ~~ll~~close      'll be      won't pass      'll catch

1. It's cold. I'll close the window.
2. His teacher thinks he..... a great pianist one day.
3. Do your homework or I ..... you go out.

4. I'm afraid she ..... her exams.
5. Put on your coat or you ..... a cold.
6. This shirt is nice. I .....it.

**7. Answer the questions about yourself, using I hope, I believe, I expect, perhaps, probably. Follow the model.**

1. Where will you go at the weekend?  
I'll probably go skiing in the mountains.
2. What will you buy your friend for his/her birthday?  
\_\_\_\_\_
3. Where will you be at 3 o'clock tomorrow afternoon?  
\_\_\_\_\_
4. Who will you ask if you need studying for the exam?  
\_\_\_\_\_
5. Where will you spend your holidays?  
\_\_\_\_\_

**8. Take a role of a fortune teller and tell your group about the future. You can use the ideas below.**

**One student will...**

1. be a dentist
2. have 3 children
3. win a lot of money
4. marry a millionaire

**Two students will....**

1. be singers
2. live in the USA
3. win a competition
4. fly to the moon

*Fortune teller: I think Jim and Lucy will be singers.*

### **Практическое занятие № 9**

**Тема:** Экономика страны изучаемого языка. Великобритания. Future Simple.

**Цель:** Закрепление и систематизация лексического и грамматического материала, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Ответить на вопросы к тексту/сделать презентацию. Выполнить упр.2-5.

### **THE ECONOMY OF GREAT BRITAIN**

Great Britain is a highly-developed naval and industrial power. Its economy was primarily based on private enterprises. The government controls the coal-mining and electric power industries, ferrous metallurgy and shipbuilding. Part of public transport, civil aviation and national bank are also managed by the state.

The main sectors of British economy are manufacturing, services and agriculture. The share of industry in GNP is 11 times more than that of agriculture. Manufacturing plays a vital role in British economy. It accounts for 1/5 of the GNP and employs less than 1/3 of the workforce.

The rise of Great Britain as an industrial nation was partly due to the presence of considerable mineral resources, the most important of them being coal and iron. Next to coal and iron the chief minerals found on the British Isles are the building stone, marble, granite, slate, lead, tin, copper, zinc, salt and china clay. But in the course of the last hundred years many of Britain's most valuable deposits have been worked out.

Big cities and towns such as London, Glasgow, Manchester, Liverpool, Newcastle, Sheffield and Birmingham have enterprises of nearly all branches of industry. The main centres of cotton and woolen industry are Leeds, Bradford and Manchester.

Services play an important role in British economy and make up an increasing proportion of the national income. They account for about 60 per cent of gross domestic product (GDP) and 68 per cent of employees. This sector includes health, education, retail and wholesale trade, tourism, financial and business services, insurance, transport, etc.

In the 19th century Britain dominated international trade, accounting for about one-third of world's exports. Early in the 20th century its position changed. The volume of world's exports increased. With a large population, small land area, and few natural resources, the country depends on foreign trade to supply the raw materials for English factories and to provide a market for the sale of the thousands of types of manufactured goods produced by English industries.

The United Kingdom's principal exports are vehicles, machinery, manufactured goods and textiles. Its main exports are food stuffs and most of the raw materials for industry. Britain imports half the food it needs.

The United Kingdom's main trade partner is the EU. Some 58 percent of the kingdom's exports go to EU nations. Its main EU partners are Germany, which accounts for 12 percent of exports; France, with 12 percent; and the Netherlands with 8 percent. The United Kingdom's largest single market is the United States, which accounts for 13 percent of its exports. The United States also provides 14 percent of the kingdom's imports.

For several decades, the United Kingdom has had a trade deficit, as it has imported more goods and services than it has exported. In 1998, the trade deficit amounted to US\$35 billion or 1.5 percent of GDP.

The United Kingdom has been a member of the European Free Trade Association (E.F.T.A.) since 1959, and a member of the European Economic Community (E.E.C.) since 1973.

**1. Answer the questions.**

1. What is the British economy based on?
2. What are the United Kingdom's principal exports?
3. What does the service sector include?
4. What is the United Kingdom's main trade partner?
5. What is the United Kingdom's largest single market?
6. The United Kingdom has been a member of several organisations. What are they?

**2. Look at Amy's diary for next week. Ask and answer questions as in the example.**

<b>MONDAY</b> clean my room	<b>THURSDAY</b> have a guitar lesson
<b>TUESDAY</b> play volleyball	<b>FRIDAY</b> watch TV
<b>WEDNESDAY</b> help mum	<b>SATURDAY</b> meet my friends
	<b>SUNDAY</b> visit grandmother

1. clean her room/Wednesday  
Is Amy going to clean her room on Wednesday?  
No, she isn't. She is going to clean her room on Monday

2. play volleyball/Saturday  
\_\_\_\_\_  
\_\_\_\_\_

4. have a guitar lesson/Friday  
\_\_\_\_\_  
\_\_\_\_\_

5. watch TV/Tuesday  
\_\_\_\_\_  
\_\_\_\_\_

6. meet her friends/Sunday  
\_\_\_\_\_  
\_\_\_\_\_

3. help her mum/Monday

\_\_\_\_\_

\_\_\_\_\_

7. visit her grandmother/Thursday

\_\_\_\_\_

\_\_\_\_\_

**3. Pair work. Ask and answer questions as in the example.**

A: Are you going to clean your room on Monday?

B: Yes, I am./No, I'm not.

**4. Writing activity.**

Writing Activity
I'm going to ..... on Monday.....
.....
.....
.....

**5. Open the brackets, using Future Simple or be going to. Choose between Future Simple and be going to to complete the conversation.**

— Can I speak to Fiona, please?

— Speaking. Is that you, Pat?

— It's me. Hi. What you \_\_\_\_\_ (1 – do) tonight?

— I don't know yet. I think, I \_\_\_\_\_ (2 — read) the book Nora gave me yesterday.

— How about going to the cinema?

— Sounds good, but I'm looking after my little brother after eight, because my parents are going to their friend's birthday party.

— Poor you. Your brother is so naughty sometimes!

— But I love him. He's so funny! I think, he \_\_\_\_\_ (3 — be) a good clown. He says he \_\_\_\_\_ (4 — be) a pilot, nothing else. Well, what \_\_\_\_\_ (5 — do) you tonight?

— I don't know either. I wanted to go somewhere nice with you, but you are baby-sitting tonight, so I \_\_\_\_\_ (6 — help) you to baby-sit, if you don't mind.

— Of course, I don't. Come along and we \_\_\_\_\_ (7 — have) a nice cup of tea and \_\_\_\_\_ (8— play) with my brother.

**Практическое занятие № 10.**

**Тема:** На железнодорожном вокзале. Страдательный залог времен Simple.

**Цель:** Введение и закрепление лексического и грамматического материала, совершенствование навыков говорения, аудирования, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить диалог по теме, упр.8-10.

**1 Capital cities in Europe - where are they? Speak, connect and write.**

*I'd like to go to....*

*Rome.*

*Berlin.*

*London.*

*Paris.*

*Madrid.*

*Budapest.*

*Prague.*

..... is in....

Spain.

England.

the Czech Republic.

Italy.

Germany.

France.

Hungary.

<i>Bratislava.</i>	Belgium.
<i>Brussels.</i>	Slovenia.
<i>Bern.</i>	Russia.
<i>Copenhagen.</i>	Finland.
<i>Oslo.</i>	Sweden.
<i>Stockholm.</i>	Switzerland.
<i>Helsinki.</i>	Norway.
<i>Moscow.</i>	Denmark.

*I'd like to go to Rome. Rome is in Italy.*

*I'd like to go to ..... is in .....*

*I'd like to go to ..... is in .....*

## **2 Travel plans. Speak and write. To which of these countries can you travel by train?**

*I'd like to go to ...*      You can go...

*Rome*

*Berlin*

*London*

*Paris*

*Madrid*

*Budapest*

*Prague*

*Bratislava*

*Brussels*

.....

by train.

by car.

by plane.

by bus.

by boat.

by bike.

by ????

## **Where do you want to go? Write about your travel plans:**

*I'd like to go to ..... by .....*

*I'd like to go to ..... by .....*

## **3 Topical vocabulary. Read and translate.**

a railway station – железнодорожный вокзал

direction - направление

a booking office - билетная касса

a ticket - билет

a single ticket - билет в одно направление

a return ticket - билет туда и обратно

a pound – фунт (денежная единица)

a waiting room – зал ожидания

arrival - прибытие

a porter - носильщик

to carry luggage – нести багаж

to push – толкать, продвигать

a truck – багажная тележка

a trunk – дорожный чемодан

a suitcase – чемодан (небольшой плоский)

a luggage van – багажный вагон

abroad – за границей, за границу

a direct train – прямой поезд

to be due out – должен отойти

to be due in – должен прибыть

a sleeping car – спальный вагон  
a stopping train – пассажирский поезд  
a place of destination – место назначения  
chief - главный  
a station-master – начальник станции  
a bookstall – книжный киоск  
a left-luggage office – камера хранения  
to call for smth – заходить за чем-либо  
a carriage – пассажирский вагон

#### 4 Read the text and practice the conversations.

##### THE RAILWAY STATION

We are at the railway station in London. Let's look round the station and watch the busy life that is going on. There are a lot of platforms from which trains go out and come in. Our train goes from platform 2, so let us wait in that direction. There is a booking office where you can buy a ticket for your journey. Let's listen to that man buying a ticket.

*Man:* I want a ticket to Brighton, please, second class.  
*Booking clerk:* Single or return?  
*Man:* Return, please.  
*Booking clerk:* Second return, Brighton: one and fifty pounds, please. (The man gives him two pounds). Fifty pence change, thank you.  
*Man:* Could you tell me what time the next train goes?  
*Booking clerk:* 8.55, platform 12. If you hurry you'll just catch it?  
*Man:* Thanks.

Next to the booking office there is a waiting room where people are waiting for the train's arrival. On the platform the porters are very busy carrying luggage to the train or pushing it on their trucks. They are taking those trunks and suitcases to the luggage van. Look at the labels on them – Paris, Rome, Madrid. Quite a lot of people are going abroad. There is a direct train to Paris, it's due out at 8.50.

Here is a train that has just come in, with crowds of people getting off it. It has had a long journey. Those are sleeping cars in front of the train. It is a stopping train, not an express; it stops at five or six stations before it gets to the place of destination.

The chief man of the railway station is the station-master. There is his office next to the waiting – room. We can see a restaurant which is open. There aren't many people in it, just a few having breakfast, but there are rather more people having a snack. They are drinking cups of tea or coffee, eating sandwiches, buns or biscuits.

Here is a bookstall where you can buy newspapers and magazines. Then follows a left-luggage office. What is that woman saying to the man at the left-luggage office?

*Man:* Yes, madam.  
*Woman:* I want to leave some luggage here until this afternoon; is that all right?  
*Man:* Oh, yes, madam, that'll be quite all right. Is this just one bag?  
*Woman:* No, there are those two suitcases and this trunk. My husband will call for them with his car this afternoon.  
*Man:* Very well, madam. What name, please?  
*Woman:* Mrs Smith.  
*Man:* Right. Here's the ticket. That'll be twenty pence, please. Thank you.

#### 5 Complete the sentences using the information from the text.

1. A booking office is a place where ... .. .

2. A waiting room is a place where .....
3. A porter is a person who .....
4. A stopping train is a train that .....
5. A station-master is .....
6. A bookstall is a place where .....

**6 Do you like travelling by train? Why/why not? Describe it with the following adjectives.**

I think		boring/interesting.	
In my opinion	travelling by train is	cheap/expensive.	So, I like/don't like it.
It seems to me		noisy/quiet.	
To my mind		fast/slow.	
		uncomfortable/comfortable.	
		safe/dangerous.	

**7 Make the correct order. Practice the conversations.**

**Dialogue 1**

A: 9.25. Platform 3.  
 B: What time does it reach London?  
 A: Good morning. When does the London train leave, please?  
 B: Do I have to change?  
 A: You should be there at 11.31, but you may be a bit late.  
 B: Yes. You change at Lewes and East Croydon.

**Dialogue 2**

A: Must I change?  
 B: No. It's a direct train.  
 A: It gets there at 11.34.  
 B: When does it get in?  
 A: Afternoon. Which train do I take for Victoria, please?  
 B: 9.28. Platform 2.

**Dialogue 3**

A: It's due in<sup>2</sup> at 11.35, but they're running late today.  
 B: Yes. Change at East Croydon.  
 A: When do we get there?  
 B: Good afternoon. What time's the next train to Victoria, please?  
 A: Do I have to change trains?  
 B: 9.26. Platform 4. Right up<sup>1</sup> at the front.

**8. Fill in: *is, are, was or were.***

1. A short story competition is organised by our school every year.
2. The electric light bulb ..... invented by Thomas Edison in 1879.
3. Many films ..... produced in Hollywood.
4. The Lost City of the Incas ..... located in Peru.
5. The film *Titanic* ..... directed by James Cameron.
6. The Special Olympics World Games ..... held every four years.
7. Toyota cars ..... made in Japan.
8. Penicillin ..... discovered by Alexander Fleming.
9. The Harry Potter books ..... written by J. K. Rowling.
10. The Parthenon ..... visited by thousands of tourists each year.



11. Breakfast .....served from 7:00 am to 11:00 am daily.
12. Coffee ..... grown in Brazil.

**9. Complete the sentences using one of these verbs in the correct form, present or past.**

~~cause~~ overtake damage show hold surround invite translate make write

1. Many accidents are caused by dangerous driving.
2. Cheese ..... from milk.
3. The roof of the building ..... in a storm a few days ago.
4. You .....to the wedding. Why didn't you go?
5. A cinema is a place where films ..... .
6. In the United States, elections for president .....every four years.
7. Originally the book ..... in Spanish, and a few years ago it..... into English.
8. Although we were driving fast, we .....by a lot of other cars.
9. You can't see the house from the road. It .... ..... by trees.

**10. Put the verbs in brackets into the Past Simple Passive.**

Two men 1) were seen (see) breaking into a house last night. The police 2) .....(call) and one man 3) ..... (catch) immediately. The other escaped but he 4) ..... (find) soon after. Both men 5) ..... (take) to the police station where they 6) .....(question) separately by a police officer. The two men 7) ..... (charge) with burglary.

**Практическое занятие №11.**

**Тема:** В аэропорту. Страдательный залог времен Simple.

**Цель:** Введение и закрепление лексического и грамматического материала, совершенствование навыков говорения, аудирования, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить диалог по теме, упр.5-6.

**AT THE AIRPORT**

**1 Speaking and discussion.**

1. Have you ever travelled by plane? Did you like it?
2. Where did you travel to?
3. What do you usually do on the aircraft during the flight?
4. What's the first thing you do on arrival?

**2 a) Joe Hunter wants a ticket to Boston. Read and practice the conversation.**

Travel agent: Welcome to *Call – a – Flight*. My name is Helen. How can I help you?

Joe: Hello. I'm calling about flights to Boston.

Travel agent: When would you like to go?

Joe: On 24<sup>th</sup> February. That's a Saturday.

Travel agent: When do you want to come back?

Joe: Sunday 11<sup>th</sup> March.

Travel agent: How many people are travelling?

Joe: Just me.

Travel agent: And from which airport?

Joe: London Heathrow.

Travel agent: And what's your name please?

Joe: It's Joe Hunter.

Travel agent: Ok. Hold on a moment. I'll just check availability. Right. There's a British Airways flight that leaves London Heathrow at 13.20 on the 24<sup>th</sup> of February and arrives in Boston at 18.45. The return flight leaves Boston at 5.15 on Sunday the 11<sup>th</sup> of March, arriving at London Heathrow at 8.20.

Joe: How much is that?

Travel agent: Let me check.. That's £259, including all taxes.

Joe: Ok. That's not too bad. Can I book that please?

Travel agent: Yes, of course. How would you like to pay?

Joe: By credit card, please.

**b) Match the travel agent's questions a) -g) to the things she asks about 1-7.**

- |                                    |                                    |
|------------------------------------|------------------------------------|
| a) How many people are travelling? | 1. by credit card, please;         |
| b) How can I help you?             | 2. the date you leave;             |
| c) When would you like to go?      | 3. the date you return;            |
| d) And what's your name please?    | 4. the reason you are calling;     |
| e) How would you like to pay?      | 5. the name of an airport or city; |
| f) When do you want to come back?  | 6. number of passengers;           |
| g) And from which airport?         | 7. a name.                         |

**3 Topical vocabulary. Read and translate.**

Check-in desk – пункт регистрации;

A passport – паспорт;

A boarding card – посадочный билет;

Hand luggage – ручная кладь;

A ticket – билет;

Sharp items - острые/колющие/режущие предметы;

Electrical goods – электроприборы;

Pack bags – упаковывать вещи;

A suitcase – чемодан;

Seat number – номер места;

Departure gate – ворота;

To board – садиться на самолет; boarding – посадка в самолет;

Passengers – пассажиры;

A window seat – место у окна;

A middle seat – место в центре, по середине;

An aisle seat – место с краю, у прохода;

Flight – рейс, полет.

**4. Joe is at the airport. Listen to the conversation and fill in the gaps.**

Woman: Good morning, sir. Can I see your .... and ....?

Joe: Certainly. Here you are.

Woman: Thank you. Ok. How many .... will we be .....

Joe: Just one .....

Woman: Did you .... your ..... yourself?

Joe: Yes I did.  
 Woman: Do you have any ..... ?  
 Joe: I have an electrical shaver in my ..... . Is that Ok?  
 Woman: That's fine. So, nothing in your ..... ?  
 Joe: No.  
 Woman: Ok. Do you like a ..... or an ..... seat?  
 Joe: A window seat, please.  
 Woman: Ok. Just one moment. This is your ..... and ..... You should go straight through the departure lounge. Enjoy your flight.  
 Joe: What time will we be boarding?  
 Woman: You will be boarding at 7.  
 Joe: Thank you.

**5. Допишите одну из трех форм глагола:**

1. to take, ..., taken
2. to read, read, ...
3. ... was/were, been
4. ..., gave, given
5. to put, put, ...
6. to come, ..., come
7. ..., flew, flown .
8. .... spoke, spoken

**6. Выберите правильную форму страдательного залога (Present, Past, Future Simple Passive):**

1. New houses... every year. a) were built; b) are build; c) are built
2. They... met in the airport tomorrow. a) is; b) will be; c) will
3. The fax... last year. a) will be printed; b) was printed; c) is printed
4. Dinner... at 2 o'clock every day. a) is served; b) are served; c) was served
5. The book of this writer... in 2008. a) will be print; b) was printed; c) will be printed
6. The contract... two days ago. a) was signed; b) is signed; c) will be signed.
7. Radio... by Popov. a) is invented; b) was invent; c) was invented
8. Six public holidays... celebrated in Great Britain. a) is; b) was; c) are
9. The room... every day. a) is cleaned; b) is clean; c) will clean
10. My father... next month. a) will operate; b) will be operated; c) is operated

**Практическое занятие № 12.**

**Тема:** На таможне. Страдательный залог. Повторение.

**Цель:** Введение и закрепление лексического и грамматического материала, совершенствование навыков говорения, аудирования, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Выучить диалог по теме, упр. 6-7.

**GOING THROUGH THE CUSTOMS**

**1. Fill in the gaps.**

a passport	a boarding card	hand luggage	a ticket	sharp items
pack your bags	passengers	a flight number	a gate	
a check-in desk	a window/ a middle/ an aisle seat			

1. Before you leave the house, you ..... your .....
2. To travel to another country, you need a ..... and a .....
3. When you get to the airport, you go to the .....-in .....
4. You can choose a ..... seat, a ..... seat and an ..... seat.
5. The person at the check-in desk always asks you if you have any ..... items in your .... luggage.
6. He or she then gives you your ..... card.
7. You need to listen for your ..... and which ..... your plane leaves from.
8. Then you get on the plane with the other .....

## 2. Read and translate.

Item	вещь/предмет
To incur duty	облагаться пошлиной
To declare	задекларировать/указать в декларации
To be allowed	позволять/разрешать
Individual	лицо
Commercial activity	коммерческая деятельность
Caviar	икра
Special permission	особое разрешение
To carry across the border	провозить через границу
To go through the customs	проходить таможенный досмотр
To fill in the customs declaration	заполнить декларацию
Firearms	огнестрельное оружие
Endangered	под угрозой исчезновения
Precious metals/ stones	драгоценные металлы/камни
Substances	вещества

## 3. Group work. Look through the customs regulations of the Russian Federation. Have you ever carried these items across the border?

### Group 1. Items which incur import/export duty.

- Tobacco (individuals, 17 years or over, are allowed to import/export up to 100 cigars, 400 cigarettes, or 0.5kg of tobacco undeclared).
- Alcohol (individuals, 21 years or over, are allowed to import/export up to two liters of alcoholic drinks undeclared).
- Caviar (individuals are allowed to import/export 250g of caviar undeclared).
- Goods intended for production or commercial activity.

### Group 2. Items which require special permission to import/export.

- Firearms, ammunition and explosives.
- Radioactive substances.
- Endangered species of flora and fauna.
- Precious metals and precious stones, except as part of personal jewelry.
- Narcotics, psychotropic substances, toxins, and powerful drugs.
- Radio technology, excepting cellphones.
- Extremist film, photography, and publications.
- Objects of cultural significance.

**4. RECORDING 5. Listen to the conversation. Choose the correct variant.**

A: Good morning, sir

B: Hello

A: Could I see your *precious metals and precious stones?*  
*passport and visa documentation?*  
*extremist films and publications?*

B: Yes, here they are.

A: Is this your first visit to *Australia?*  
*New Zealand?*  
*Canada?*  
*the United Kingdom?*

B: Yes, It is.

A: Where will you be staying?

B: *At a hotel.*  
*With my friend in London.*  
*At my aunt's house.*  
*At a dormitory.*

A: How long will you be staying?

B: I'll be staying *until tomorrow.*  
*for 1 month.*  
*for two weeks.*  
*until next Tuesday.*

A: Do you have anything to declare?

B: No, I do not have anything to declare.

A: Good. Everything seems to be in order. Please enjoy your stay.

B: Thank you. Could you tell me where is *the departure gate?*  
*the waiting room?*  
*the duty free-shop?*  
*the baggage claim?*

A: Follow the signs to the left please.

B: Ok. Thank you.



**5. Write sentences in the *Past Simple Passive*. DID YOU KNOW?**

1. The toothbrush /invent/in the fifteen century.  
*The toothbrush was invented in the fifteen century.*
2. The first pair of sunglasses/wear/in the 1200s  
\_\_\_\_\_
3. The first bicycle/ride/in1791.  
\_\_\_\_\_
4. The first hot dogs/eat/in the 1860s.  
\_\_\_\_\_
5. The first computer mouse/use/in 1964.  
\_\_\_\_\_
6. The first CDs/sell/in the 1980s.  
\_\_\_\_\_
7. The first public basketball game/play/in 1892.  
\_\_\_\_\_

**6. How are music videos made? Turn the following sentences into the *Present Simple Passive*.**

1. The music producer chooses the song for the music video.  
*The song for the music video is chosen by the music producer.*
2. A director directs the music video.

- 
3. A cameraman shoots the video.
- 
4. A singer or band sings the song.
- 
5. The music company produces the music video.
- 

### Практическое занятие № 13

**Тема:** На таможне. Страдательный залог. Повторение.

**Цель:** Закрепление и систематизация лексического и грамматического материала, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить диалог по теме, упр.5-6.

#### 1. Read the text and answer the questions.

##### TEXT A. TRAVELLING

Nowadays travelling abroad is very popular. Some people prefer to travel by plane, especially businessmen, because it's the fastest means of transportation. Those who are not short of time usually travel by train or by ship. It takes more time but gives the opportunity to see the country you travel through, its picturesque landscapes and nature.

While travelling abroad you have to go through **customs**, sometimes several times.

As a rule the customs officers check your passports and visas if they are required. When coming to some countries you may need a health certificate or a certificate of vaccination. If you have anything to declare, then you are to fill in the declaration form.

The customs officers may ask you to show your luggage to them. Usually articles for personal use and wear and also used items and gifts are not liable to duty anywhere. If you are carrying much currency you should also declare it. If you are carrying weapons you need a permit. Although some items are liable to duty, if you carry only a small amount of them, they are duty free.

Occasionally the customs officers may take some of your things for a more detailed inspection but usually they return them soon.

Do not try to break the customs rules and regulations because you may have a lot of troubles.

1. Why do people prefer to travel by plane?
2. What are the advantages of travelling by train?
3. What are the rules of going through the customs?
4. What items should be declared?
5. In what case do you need a permit?

#### 2. Read the text and say are the sentences true or false.

##### TEXT B. THE SMUGGLER

Sam Lewis was a custom officer. He used to work in a small border town. It was not a busy town and there was not much work. The road was usually very quiet and there were not many travellers. It was not a very interesting job, but Sam liked an easy life. About once a week, he used to meet an old man. His name was Draper. He always used to arrive to at the border early in the morning in a big truck. The truck was always empty. After a while Sam became suspicious. He often used to search the truck, but never found anything. One day he asked Draper about his job. Draper laughed and said "I'm a smuggler".

Last year Sam retired. He spent his saving on an expensive holiday. He flew to Bermuda, and stayed in a luxury hotel. One day he was sitting by the pool and opposite him he saw Draper drinking champagne. Sam walked over to him.

**Sam:** Hello, there!

**Draper:** Hi!

**Sam:** Do you remember me?

**Draper:** Yes... of course I do. You're a customs officer.

**Sam:** I used to be, but I'm not anymore. I retired last month. I often used to search your truck...

**Draper:** ... but you never found anything!

**Sam:** No, I didn't. Can I ask you something?

**Draper:** Of course you can.

**Sam:** Were you a smuggler?

**Draper:** Of course I was.

**Sam:** But... the truck was always empty. What were you smuggling?

**Draper:** Trucks...

### True or false?

1. Sam Lewis was a smuggler.
2. He liked his job.
3. About twice a week Sam used to meet an old man in a small truck full of different stuff.
4. Draper was a custom officer.
5. Draper smuggled trucks.

### 3. Fill in *by* or *with*.

1. The photos were taken *with* a digital camera.
2. The room was decorated .....flowers.
3. *The Green Mile* was written .....Stephen King.
4. The sauce was made .....onions and peppers.

### 4. Writing practice. Rewrite the article and put the underlined parts into *the passive*.

You are back home from college. You turn on the lights. You take a cool drink from the fridge and you heat your dinner in the microwave. For people who lived 200 years ago, this would be science fiction! 200 years ago there was no electricity. <sup>1</sup>People heated houses with a real fire and <sup>2</sup> they lit rooms with candles. <sup>3</sup>Milkmen delivered milk every morning and <sup>4</sup>people stored it in a cool place. <sup>5</sup>They cooked food in the fireplace or on a big stove. 200 years ago there was no plumbing! <sup>6</sup>People carried water from the nearest well or the fountain and <sup>7</sup>they washed clothes by hand. Then <sup>8</sup>they ironed clothes with a heavy iron. <sup>9</sup>They filled irons with hot coal. <sup>10</sup>People used horse carriages because there were no cars or buses. I think I prefer life in the 21<sup>st</sup> century, don't you?

## Практическое занятие № 14

**Тема:** В гостинице. Подготовка к контрольной работе.

**Цель:** Введение и закрепление лексического и грамматического материала, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить диалог по теме. Повторить пройденный материал. Подготовиться к контрольной работе.

## IN A HOTEL

### 1 Making a reservation. Резервирование номера в отеле.

"Hi, how much are your rooms?"

"Hi, what are your rates?"

*Сколько стоит номер?*

"Hello, how much is a room?"

"Our rooms start at \$79 for a basic room."

*Стоимость стандартных номеров - от 79\$.*

"Our rooms start at \$79 for a standard room люксы - 300\$.  
and go up to \$300 for a suite."

"Ok. Can I reserve/rent a room?"

"Hi, I would like to reserve/rent a room." Я бы хотел забронировать номер.

"Hello, can I reserve/rent a couple of rooms?"

### **Запрос информации о дате заселения и сроке пребывания:**

"What day do you want to check in?"

"Which date did you want to reserve?" Когда (день/число) вы хотите заселиться?

"What date are you looking for?"

"I want a room from June 22nd to June 25th." Мне нужен номер с ..... по .... (период)

"I would like a room for the 19th of July."

"How long will you be staying with us?"

"When will you be checking out?" На какой период вы бы хотели заселиться?

"How many days would you like the room for?"

"I am going to stay for 3 days."

"I would like to reserve the room for 4 days." Мне нужен номер на .... дня/до ....

"I am going to need the room until July 23rd."

### **Checking in and checking out. Заселение/регистрация в гостиницу/выезд из гостиницы.**

"Hi, I am checking in."

"Hi, I have a reservation and I am checking in." Здравствуйте, я бронировал номер.

"Where is the elevator?"

Где находится лифт?

"Do you have concierge service here?"

Есть ли у вас консьерж-услуги?

"Do you have a map of the city?"

У вас есть карта города?

"What time should I check out by?"

В котором часу я должен выехать

"What time is check out?"

из отеля?

"Should we charge the credit card on file or did you want to use a different card?"

"Your credit card will be charged a total of \$256.78. Can you sign on the bottom?"

"Thank you for staying with us. We look forward to seeing you again."

Спасибо, что выбрали нас. Ждем вас снова.

### **2 Read and practice the conversation.**

A: "Thank you for calling Great Hotel. How may I help you?"

B: "I would like to rent/reserve a room, but how much do you charge a night?"

A: "Our prices start at \$79 a night for a standard room."

B: "Great. Can you reserve a room for me?"

A: "Sure. What day are you coming in?"

B: "I will be checking in on August 3rd."

A: "How long will you be staying with us?"

B: "I'll need it for three nights."

A: "Ok. I have you coming in on the 3rd of August and checking out on the 6th. Is that correct?"

B: "Yes."

A: "How many total adults?"

B: "Two adults and two kids."



A: "How old are the children?"  
 B: "10 and 12."  
 A: "Would you like one room or two rooms?"  
 B: "Just one is fine."  
 A: "Would you like a smoking room or a non smoking room?"  
 B: "Non smoking room please."  
 A: "Can I have your last name?"  
 B: "Park."  
 A: "Your first name"  
 B: "Young. That's Y O U N G."  
 A: "Let me confirm your information Mr. Park. I have one non smoking double room with 2 adults and 2 children from August 3rd to August 6th. Is this correct?"  
 B: "Yes."  
 A: "The total comes to \$256.78. Can I get your credit card number?"  
 B: "Sure. It is 4444444444444444."  
 A: "What is the name on the credit card?"  
 B: "Young Park."  
 A: "I have the room reserved for you. If you need to cancel, please call us 24 hours before your check in date. Failure to cancel will result in a one day charge on your credit card. Is there anything else I can do for you?"  
 B: "Yes, one more question. What time can we check in."  
 A: "We can check you in by 2:00 pm."  
 B: "Great. Thank you."  
 A: "Thank you and have a great day."  
 B: "Thanks. Bye"  
 A: "Good bye."

**3. Make up your own conversation.**

**Практическое занятие № 15**

**Тема:** Контрольная работа.

**Цель:** Контроль лексических и грамматических навыков, словарного запаса обучающихся.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности.

**Контрольная работа**

**Вариант I**

**1. Совместите слова и словосочетания из двух колонок:**

Темза	to carry luggage
Здание парламента	Buckingham palace
Билет	hand luggage
Упаковывать вещи	the Thames
Британский музей	the Houses of Parliament
Нести багаж	to pack bags
Букингемский дворец	a ticket
Ручная кладь	the British Museum
Достопримечательности	a window seat
Место у окна	places of interest

**2. Дополните предложения и переведите их:**

1. Great Britain consists of... parts.

2. The capital of Wales is... .
3. The official head of the United Kingdom is... .

**3. Образуйте отрицательную и вопросительную формы от данного предложения:**

The Queen lives in Buckingham palace.

**4. Исправьте ошибки, если таковые имеются:**

1. He doesn't likes studying.
2. She drive a car very fast.
3. They have many friends.
4. After dinner he listens to the music or watch TV

**Контрольная работа  
Вариант II**

**1. Совместите слова и словосочетания из двух колонок:**

Посадочный билет	passengers
Трафальгарская площадь	Westminster Abbey
Регистрация	a window seat
Номер рейса	a boarding card
Вестминстерское Аббатство	to be situated on
Место в центре	Trafalgar Square
Располагаться на	flight number
Пассажиры	check-in desk
Здание парламента	the United Kingdom
Соединенное Королевство	the Houses of Parliament

**2. Дополните предложения и переведите их:**

1. The climate of Great Britain is ... .
2. The Houses of Parliament is famous for its big hour bell known as ... .
3. The capital of Northern Ireland is ... .

**3. Образуйте отрицательную и вопросительную формы от данного предложения:**

He bought the ticket two days ago.

**4. Исправьте ошибки, если таковые имеются:**

1. They didn't visited their granny last week.
2. We maked many mistakes in the test.
3. When were you born?
4. Did you like the film? – No I not.

**Практическое занятие № 16**

**Тема:** Итоговое занятие.

**Цель:** Контроль умений и навыков практического владения английским языком.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести текст, выполнить упражнения к тексту, выполнить грамматические задания.

## Вариант I

### 1 Find geographical names in the text and translate them. Do we use the articles with them?

### 2 Fill in the gaps if necessary.

1. The official name of ... Great Britain is ... United Kingdom of ... Great Britain and ... Northern Ireland.
2. ... U. K consists of ... England, ... Scotland, ... Wales and ... Northern Ireland.
3. The western coast of ... Great Britain is washed by ... Atlantic Ocean and ... Irish Sea.
4. ... English Channel separates the south-east of ... Great Britain from ... France the narrower part of which is called ... Strait of Dover.
5. The climate in Great Britain is generally mild, humid and temperate due to the influence of ... Gulf Stream.
6. There are many rivers in Great Britain but they are not long. The longest of them is ... Thames, which is a little over 200 miles.

### 3 Find the cardinal directions in the text.

север - северный - на севере - к северу от;  
юг - южный - на юге - к югу от;  
запад - западный - на западе - к западу от;  
восток - восточный - на востоке - к востоку от.

### 4 Translate the sentences into Russian.

1. Горы находятся *на западе и севере* страны.
2. Низменности *на юге и востоке*.
3. *Западное* побережье Великобритании омывается Атлантическим океаном и Северным морем.
4. Ла-Манш отделяет *юго-восточную* часть Великобритании от Франции.

### 5 Reading and speaking. Read the text, find information about the geographical position and climate of Great Britain. Say whether it is true (T) or false (F).

1. The official name of Great Britain is the United Kingdom of Great Britain and Northern Ireland.
2. The UK consists of three parts – England, Scotland, and Wales.
3. Great Britain officially includes England, Scotland and Wales and Northern Ireland.
4. The English Channel separates the south-east of Great Britain from France.
5. The climate in Great Britain is generally hot and dry due to the influence of the Strait of Dover.
6. The English say that they have three variants of weather. It is very changeable.

## GREAT BRITAIN

The official name of the country we usually call England is the United Kingdom of Great Britain and Northern Ireland. The U K is situated on the group of islands lying to the west of the continent of Europe. The UK consists of England, Scotland, Wales and Northern Ireland. The total land area of the United Kingdom is 244,000 square kilometres. The population of the country according to the 2011 census is about 63,182,000. The mountains are in the west and the north of the country. There are lowlands in the south and the east. Great Britain officially includes England, Scotland and Wales.

The western coast of Great Britain is washed by the Atlantic Ocean and the Irish Sea. The eastern coast is washed by the waters of the North Sea. The English Channel, which is 32 kilometres wide, separates the south-east of Great Britain from France the narrower part of which is called the Strait of Dover. So Great Britain is surrounded by water. Not far from the British Isles there is warm Gulf Stream. So, the climate in Great Britain is generally mild, humid and temperate due to the influence of the Gulf Stream. This humid and mild climate is good for plants. The trees and flowers begin to blossom early in spring. In January average temperature is from 3 to 7 degrees below zero and in July it is from 16-17 degrees above zero.

British people say: "Other countries have a climate, in England we have weather." The weather in Britain changes very quickly. One day may be fine and the next day may be wet. The morning may be

warm and the evening may be cool. The English also say that they have three variants of weather: when it rains in the morning, when it rains in the afternoon or when it rains all day long. Every daily paper publishes a weather forecast. Both the radio and television give the weather forecast several times each day.

There are many rivers in Great Britain but they are not long. The longest of them is the Thames, which is a little over 200 miles. Britain's principal ports are London, Liverpool, Manchester, Hull, Glasgow.

The capital city of England is London. The capital city of Scotland is Edinburgh. The capital city of Wales is Cardiff. Belfast is the capital of Northern Ireland.

The national emblem of England is a red rose. The national emblem of Scotland is a thistle. The national emblem of Wales is a daffodil. The national emblem of Northern Ireland is a shamrock.

Great Britain is not rich in mineral resources, except coal, mined mostly in Wales. But it is a highly developed country.

The UK is the parliamentary monarchy. Legislative power belongs to her Majesty Queen Elizabeth II, and the Parliament, which consists of the House of Commons and the House of Lords. Officially the Head of the State is the Queen.

### 6 Speaking and discussion.

1. What place in Britain would you like to visit most of all and why?
2. Would you like to live in Britain? Why/why not?

### 7 Put the verbs in the Present Simple form.

1. One fly \_\_\_\_\_ (to fly) , two flies \_\_\_\_\_ (to fly).
2. One girl \_\_\_\_\_ (to cry), four girls \_\_\_\_\_ (to cry).
3. When a wolf \_\_\_\_\_ (to see) the moon, it \_\_\_\_\_ (to begin) to howl.
4. Wolves and sheep \_\_\_\_\_ (to be) never friends.
5. Our hens \_\_\_\_\_ (to lay) a lot of eggs.
6. Boys \_\_\_\_\_ (to fight) and \_\_\_\_\_ (to shout).
7. That boy \_\_\_\_\_ (to try) to catch some balls.
8. These girls \_\_\_\_\_ (to try) to run away from an angry turkey.

### 8. Yan is at a summer camp in Poland. Write what he usually does in the camp. Put the verbs in bracket in the correct form.

1. He \_\_\_\_\_ (get) up at 7.
2. He \_\_\_\_\_ (have) his English lesson every day.
3. He \_\_\_\_\_ (speak) English to his friends.
4. He \_\_\_\_\_ (play) board games in the afternoon.
5. Sometimes he \_\_\_\_\_ (swim) in the lake.
6. He often \_\_\_\_\_ (go) hiking.
7. He sometimes \_\_\_\_\_ (sit) by the camp fire in the evenings.
8. He never \_\_\_\_\_ (go) on a trip without his friends.

### 9. Put the verbs in the Present Simple form.

*go, like, love, watch, read, like, walk, come, do, watch*

My name's Pavel. In the evening I usually (1) \_\_\_\_\_ my homework. Then I (2) \_\_\_\_\_ TV or video. I (3) \_\_\_\_\_ action films! They are super! Then I (4) \_\_\_\_\_ my dog. After that I (5) \_\_\_\_\_ home, (6) \_\_\_\_\_ a book and (7) \_\_\_\_\_ to bed. My sister is little. She doesn't (8) \_\_\_\_\_ action films. She (9) \_\_\_\_\_ cartoons. She (10) \_\_\_\_\_ them every day.

### 10. Look at the chart and write about Ellie.

	sports programmes	comedies	action films	the news
Often		✓	✓	

Sometimes	✓			
Rarely	✓			
Never				✓

Ellie often watches comedies.

\_\_\_\_\_.

## Вариант II

### 1 Answer the questions.

1. What do you know about London?
2. Have you ever been to London? Would you like to visit it?
3. What famous London sights do you know?

### 2 Read and translate the text.

#### LONDON

London is the capital of the United Kingdom, its economic, political and cultural centre. It is one of the world's most important ports and one of the largest cities in the world. London with its suburbs has a population about 11 million people.

It is situated on the river Thames about forty miles from the mouth and is divided into two parts by the river: north and south.

The history of London goes back to Roman times. It has been a capital for nearly a thousand years. Due to favourable geographical position a small town soon became an important trade centre.

Actually London can be divided into several parts. First there is the City of London. It's the financial and business centre of Great Britain. It's the district where most offices and banks are concentrated: the Royal Exchange and the Bank of England are here, too. The East End is the district where mostly working people live. A lot of docks, factories, poor houses are concentrated here. The old port is now called "Docklands".

The West End makes a great contrast to the working district of London. It is full of richest hotels, largest supermarkets, best cinemas and concert halls. It is famous for its beautiful parks and gardens such as Hyde Park or Kensington Gardens. Many ancient buildings still stand here.

Another important district of London is Westminster where most of government buildings are located. Westminster Palace is the seat of the British Parliament where the county's leaders speak. The Houses of Parliament stand beside the river Thames. On the highest tower there is the most famous and largest clock of the country - Big Ben.

Standing not far from the Houses of Parliament, Westminster Abbey is a symbol of England. The legend says that Westminster Abbey was founded by St Peter himself but we know it was built by King Edward in 1065. The coronation of all British Kings and Queens takes place in Westminster Abbey. It is also famous for its Poet's Corner where many outstanding people - statesmen, painters, and poets were buried there. Among them Tennyson and Geoffrey Chaucer, the first English national poet, world famous scientists Isaac Newton Charles Darwin, etc.

Every year millions of tourists come to London to visit the places of interests. They make sightseeing tours of the city, visit the Trafalgar Square, the British Museum, the National Gallery, Madame Tussaud's Museum of waxworks, etc. They also visit the most ancient historic monuments dating back to Roman times such as the Tower of London which had been a fortress, a prison and a royal palace.

At present it is one of the most interesting museums of GB. Now the King and the Queen of Britain do not live in the Tower. When the Queen is in London, she stays in Buckingham Palace, her official residence.

**1 Reading and speaking. Find information about the parts of London. Say are these sentences true or false (T/F)?**

1. London consists of several parts: the City, the West End, the East End, Westminster.
2. The West End is an industrial district of London. It's the district where most offices and banks are concentrated.
3. The East End is populated by working class families. It is full of richest hotels, largest supermarkets, best cinemas and concert halls.
4. The City is a financial center of London.
5. The West End is famous for its beautiful parks and gardens such as Hyde Park or Kensington Gardens.
6. Westminster is a district of London where most of government buildings are located.

**3. Make notes about London.**

facts about the city	places to visit and things to do

**What do you like about London? Would you like to visit it?**

**4. Write the Past Simple of the following words:**

open - opened	regret - .....	cry - .....	stay - .....
love - .....	quarrel - .....	fry - .....	travel - .....
plan - .....	drop - .....	arrive - .....	close - .....
empty - .....	die - .....	play - .....	tidy - .....

**5. Look at the list of irregular verbs at the back of the book and complete the table:**

Infinitive	Past	Infinitive	Past
go	.....	.....	broke
have	.....	.....	cut
.....	came	take	.....
be	.....	.....	stole
wake	.....	drink	.....
meet	.....	.....	put
.....	sang	make	.....
speak	.....	.....	run
.....	told	begin	.....

**6. Underline the verbs in Past Simple.**

In the summer I visited my grandparents. We went to the forest, swam in the river, went fishing, read books, went to the cinema, and watched TV all the time. I visited my friends, played football, listened to music, worked in the fields, went boating, and had a good time. I picked berries and mushrooms. I lay on the sand.

**7. Put the verbs in Past Simple.**

*be (2), feed, take, start, visit, listen*

The children went to London. The Tour \_\_\_\_\_ at Hyde Park in the morning. The children \_\_\_\_\_ the ducks and squirrels there. Then they \_\_\_\_\_ photos of Trafalgar Square. The next stop \_\_\_\_\_ the British Museum. They also \_\_\_\_\_ the Tower of London. The children \_\_\_\_\_ to the famous bell Big Ben. In the evening they \_\_\_\_\_ very tired.

## 2 КУРС 4 СЕМЕСТР ВВЕДЕНИЕ В СПЕЦИАЛЬНОСТЬ

### Практическое занятие № 1.

**Тема:** Что такое компьютер? Применение компьютеров. Present Continuous.

**Цель:** Введение и закрепление лексического и грамматического материала.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести слова, текст, упр.1-3.

#### Topical vocabulary

to store numbers — запоминать числа

to manipulate [ma'nɪpjuleɪt] — управлять; обращаться; преобразовывать

to input / to feed in — вводить (информацию)

to turn on = to switch on — включать

to turn off = to switch off — выключать

to process data [prəʊ'ses 'delta] — обрабатывать данные

to supply [sa'plai] — подавать, вводить, снабжать, обеспечивать

addition — сложение

subtraction — вычитание

division — деление

multiplication — умножение

exponentiation — возведение в степень

user — пользователь

input device — устройство ввода

disk drive ['disk 'draɪv] — дисковое запоминающее устройство, дисковод

tape drive ['teɪp 'draɪv] запоминающее устройство на магнитной ленте

cathode-ray tube — электроннолучевая трубка

to make decisions — принимать решения

instantaneously — мгновенно, немедленно

### WHAT IS A COMPUTER?

A computer is a machine with an intricate network of electronic circuits that operate switches or magnetize tiny metal cores. The switches, like the cores, are capable of being in one or two possible states, that is, on or off; magnetized or demagnetized. The machine is capable of storing and manipulating numbers, letters, and characters (symbols).

The basic idea of a computer is that we can make the machine do what we want by inputting signals that turn certain switches on and turn others off, or magnetize or do not magnetize the cores.

The basic job of computers is processing of information. For this reason computers can be defined as devices which accept information in the form of instructions, called a program, and characters, called data, perform mathematical and / or logical operations on the information, and then supply results of these operations. The program, or part of it, which tells the computers what to do and the data, which provide the information needed to solve the problem, are kept inside the computer in a place called memory.

It is considered that computers have many remarkable powers. However most computers, whether large or small, have three basic capabilities.

First, computers have circuits for performing arithmetic operations, such as: addition, subtraction, division, multiplication and exponentiation.

Second, computers have a means of communicating with the user. After all, if we couldn't feed information in and get results back, these machines wouldn't be of much use. Some of the most common methods of inputting information are to use terminals, diskettes, disks and magnetic tapes. The computer's input device (a disk drive or tape drive) reads the information into the computer. For outputting information two common devices are used: a printer, printing the new information on paper, and a cathode-ray-tube display, which shows the results on a TV-like screen.



Third, computers have circuits which can make decisions. The kinds of decisions which computer circuits (can make are not of the type: “Who would win the war between two countries?” or “WHO is the richest person in the world?” Unfortunately, the computer can only decide the things, namely: Is one number less than another? Is one number greater than another? A computer can solve a series of problems and make thousands of logical decisions without becoming tired. It can find the solution to a problem in a fraction of the time it takes a human being to do the job.

A computer can replace people in dull, routine tasks, but it works according to the instructions given to it. There are times when a computer seems to operate like a mechanical ‘brain’, but its achievements are limited by the minds of human beings. A computer cannot do anything unless a person tells it what to do and gives it the necessary information; but because electric pulses can move at the speed of light, a computer can carry out great numbers of arithmetic-logical operations almost instantaneously. A person can do the same, but in many cases that person would be dead long before the job was finished.

### 1. Найдите в тексте английские эквиваленты следующих словосочетаний:

Сложная сеть электронных цепей; управлять (приводить в действие) переключателями; возможные состояния; хранить (запоминать) числа; обрабатывать символы; посредством ввода сигналов; включать; выключать; размагничивать (сердечники); обработка информации; информация в виде команд; символы, называемые данными; выполнять математические операции; выдавать результаты; обеспечивать необходимую информацию; иметь замечательные возможности; основные свойства; сложение, вычитание, деление, умножение; возведение в степень; средства для общения с пользователем; устройство ввода; дисковод; считывать информацию; вывод информации; катодноручевая трубка; принимать решения; выполнять "тысячи логических операций; без устали; находить решение задачи; значительно меньший промежуток времени; человек; нудная рутинная работа; В соответствии с введенной программой;. вырабатывать свои суждения; возможности ограничены программой, заложенной в него человеком; дать требуемую информацию; электрические импульсы; со скоростью света;) мгновенно производить огромное количество математических операций; человеку может не хватить всей жизни, чтобы закончить работу.

### 2. Образуй форму Present Continuous.

speak.....	ran .....
jump .....	cut.....
buy.....	put .....
eat.....	drink.....
walk.....	work.....
stand.....	try .....
drive.....	go .....
study.....	read .....
write .....	have .....
shine.....	sit.....

### 3. Заполните пропуски глаголами в Present Continuous.

Feed, walk, wash, play, do

1. Can I speak to Brad, please? I'm sorry, he's \_\_\_\_\_ his pet now.
2. Can I speak to Paul, please? I'm sorry, he's \_\_\_\_\_ his homework now.
3. What about Kelly? No, sorry, she's \_\_\_\_\_ her pet in the park now.
4. Can I speak to Jenny then? Sorry, she's \_\_\_\_\_ the dishes now.
5. Can I speak to Alice or Alex, please? I'm sorry, they're \_\_\_\_\_ tennis now.

### Практическое занятие № 2.

**Тема:** Что такое компьютер? Применение компьютеров. Present Continuous.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Ответить на вопросы, упр.2-3.

### **Topical vocabulary**

to store numbers — запоминать числа

to manipulate [ma'nɪpjuleɪt] — управлять; обращаться; преобразовывать

to input / to feed in — вводить (информацию)

to turn on = to switch on — включать

to turn off = to switch off — выключать

to process data [prəʊ'ses 'delta] — обрабатывать данные

to supply [sa'plai] — подавать, вводить, снабжать, обеспечивать

addition — сложение

subtraction — вычитание

division — деление

multiplication — умножение

exponentiation — возведение в степень

user — пользователь

input device — устройство ввода

disk drive ['disk 'draɪv] — дисковое запоминающее устройство, дисковод

tape drive ['teɪp 'draɪv] запоминающее устройство на магнитной ленте

cathode-ray tube — электроннолучевая трубка

to make decisions — принимать решения

instantaneously — мгновенно, немедленно

### **WHAT IS A COMPUTER?**

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The basic idea of a computer is that we can make the machine do what we want by inputting signals that turn certain switches on and turn others off, or magnetize or do not magnetize the cores.

The basic job of computers is processing of information. For this reason computers can be defined as devices which accept information in the form of instructions, called a program, and characters, called data, perform mathematical and / or logical operations on the information, and then supply results of these operations. The program, or part of it, which tells the computers what to do and the data, which provide the information needed to solve the problem, are kept inside the computer in a place called memory.

It is considered that computers have many remarkable powers. However most computers, whether large or small, have three basic capabilities.

First, computers have circuits for performing arithmetic operations, such as: addition, subtraction, division, multiplication and exponentiation.

Second, computers have a means of communicating with the user. After all, if we couldn't feed information in and get results back, these machines wouldn't be of much use. Some of the most common methods of inputting information are to use terminals, diskettes, disks and magnetic tapes. The computer's input device (a disk drive or tape drive) reads the information into the computer. For outputting information two common devices are used: a printer, printing the new information on paper, and a cathode-ray-tube display, which shows the results on a TV-like screen.

Third, computers have circuits which can make decisions. The kinds of decisions which computer circuits (can make are not of the type: "Who would win the war between two countries?" or "WHO is the richest person in the world?" Unfortunately, the computer can only decide the things, namely: Is one number less than another? Is one number greater than another? A computer can solve a series of problems

and make thousands of logical decisions without becoming tired. It can find the solution to a problem in a fraction of the time it takes a human being to do the job.

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### 1. Ответьте на вопросы, используя информацию текста.

1. What is a computer? 2. What are the two possible states of the switches? 3. What are the main functions of a computer? 4. In what way can we make the computer do what we want? 5. What is the basic task of a computer? 6. In what form does a computer accept information? 7. What is a program? 8. What are data? 9. What is memory? 10. What three basic capabilities have computers? 11. What are the ways of inputting information into the computer? 12. What is the function of an input device? 13. What devices are used for outputting information? 14. What decisions can the computer make? 15. What are the computer's achievements limited by?

### 2. Составьте предложения, используя таблицу. Ответьте на вопросы, выбрав нужную форму глагола (am/is/are).

**Образец:** *What is the dog doing? –The dog is sleeping in the park.*

Mr Connor	are helping	the door
David and Sandra	is buying	with a ball
Robert	are walking	by the door
The dog	are swimming	a newspaper
Mr King	is painting	her mother
They	are having	some sweets
Kevin	are playing	a new film
The children	is watching	dinner
Mr and Mrs Hill	is reading	in the park
people	is sleeping	in the lake

1. What is Mr Connor doing?
2. What.....David and Sandra doing?
3. What..... Robert doing?
4. What.....the dog doing?
5. What.....Mr King doing?
6. What.....they doing?
7. What.....Kevin doing?
8. What.....the children doing?
9. What.....Mr and Mr Hill doing?
10. What.....people doing?

### 3. Восстановите предложения.

- the sofa / Sam / is / on / not / sitting.
- Are / playing / not / the cats.
- cooking / Mother / not / my / is
- Reading / friends / her / are / not

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**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить пересказ текста, упр.2.

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### 2. Сделайте предложения вопросительными и отрицательными.

1. He is walking to school.
2. Jack is doing homework now.
3. The sun is shining brightly.
4. The horses are running in the field.
5. A mouse is sitting under the floor.

### Практическое занятие № 4.

**Тема:** Обработка данных. Present Continuous-Present Simple

**Цель:** Введение и закрепление знаний по теме.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести слова, текст, упр.1-3.

### Topical vocabulary

data processing — обработка информации (данных)

to convert — преобразовывать; переводить (в др. единицы)

to accomplish — завершать, заканчивать;

to house ['haus] — помещать, размещать

to improve [im'pru:v] — улучшать, совершенствовать

to control [kan'troul] — управлять, регулировать; управление, регулирование

to store ['sto:] — хранить, запоминать, заносить

storage ['sto:ridʒ] — запоминающее устройство, память; хранение

resource [ri'so:s] — ресурс; средство; возможность

facility — устройство; средство

facilities — приспособления; возможности

equipment — оборудование; аппаратура; приборы; устройства

available — доступный; имеющийся (в наличии); возможный

display [dis'plei] — дисплей; устройство (визуального) отображения; показ

manner — способ, образ (действий)

sequence — последовательность, порядок (следования)

sucessively — последовательно

data storage hierarchy — иерархия (последовательность) запоминания информации (данных)

to enter — входить; вводить (данные); заносить, записывать

comprehensive groupings — полные, обширные, универсальные образования

meaningful — имеющий смысл; значащий (о данных)  
item — элемент; составная часть  
record ['reko:d] — запись, регистрация; записывать, регистрировать  
file ['fail] — файл; заносить (хранить) в файл  
set — набор; множество; совокупность; серия; группа; система  
data base ['delta 'beis] — база данных  
related [ri'leitid] — смежный; взаимосвязанный; относящийся (к ч.-л.)

## DATA PROCESSING AND DATA PROCESSING SYSTEMS

The necessary data are processed by a computer to become useful information. In fact this is the definition of data processing. **Data** are a collection of facts — unorganized but able to be organized into useful information. **Processing** is a series of actions or operations that convert inputs into outputs. When we speak of data processing, the input is data, and the output is useful information. So, we can define, **data processing** as a series of actions or operations that converts data into useful information.

We use the term **data processing system** to include the resources that are used to accomplish the processing of data. There are four types of resources: people, materials, facilities, and equipment. People provide input to computers, operate them, and use their output. Materials, such as boxes of paper and printer ribbons, are consumed in great quantity. Facilities are required to house the computer equipment, people and materials.

The need for converting facts into useful information is not a phenomenon of modern life. Throughout history, and even prehistory, people have found it necessary to sort data into forms that were easier to understand. For example, the ancient Egyptians recorded the ebb and flow of the Nile River and used this information to predict yearly crop yields. Today computers convert data about land and water into recommendations to farmers on crop planting. Mechanical aids to computation were developed and improved upon in Europe, Asia, and America throughout the seventeenth, eighteenth, and nineteenth centuries. Modern computers are marvels of an electronics technology that continues to produce smaller, cheaper, and more powerful components.

### Basic data processing operations

Five basic operations are characteristic of all data processing systems: inputting, storing, processing, outputting, and controlling. They are defined as follows.

**Inputting** is the process of entering data, which are collected facts, into a data processing system. **Storing** is saving data or information so that they are available for initial or for additional processing. **Processing** represents performing arithmetic or logical operations on data in order to convert them into useful information. **Outputting** is the process of producing useful information, such as a printed report or visual display. **Controlling** is directing the manner and sequence in which all of the above operations are performed.

### Data storage hierarchy

It is known that data, once entered, are organized and stored in successively more comprehensive groupings. Generally, these groupings are called a data storage hierarchy. The general groupings of any data storage hierarchy are as follows.

1) **Characters**, which are all written language symbols: letters, numbers, and special symbols. 2) **Data elements**, which are meaningful collections of related characters. Data elements are also called data items or fields. 3) **Records**, which are collections of related data elements. 4) **Files**, which are collections of related records. A set of related files is called a data base or a data bank.

### 1. Найдите в тексте английские эквиваленты следующих словосочетаний:

Системы обработки информации; определение (термина) обработки данных; совокупность фактов; последовательность действий; преобразование входных данных в полезную информацию; включать ресурсы; завершить обработку данных; обеспечивать ввод информации в компьютер; ленты принтера; расходовать в большом количестве; размещать компьютерное оборудование; нуждаться (требовать) в приспособлениях; явление современной жизни; на протяжении доисторического периода! превращать информацию в выражения; регистрировать отливы и приливы. 111 и ч

позировать урожай зерновых культур; механические средства вычисления; ввод данных; хранение данных; первоначальная обработка данных; дополнительная обработка; выдача полезной информации; напечатанное сообщение; зрительное отображение; последовательность запоминания информации; записанные символы языка; элементы информации; база данных; набор взаимосвязанных файлов.

## 2. Выберите из скобок глагол в правильной форме. Переведите предложения.

1. He ... (works/is working) for a big insurance company.
2. Water always ... (boils/is boiling) at 100 degrees.
3. I ... (wait/am waiting) for my doctor at the moment.
4. Bob, stop! You ... (eat/are eating) too fast.
5. She ... (has/is having) four brothers.
6. Switch off the radio, please. You ... (don't listen/aren't listening) to it.
7. I know my bad habit: I often ... (talk/am talking) too loudly.
8. Look at the picture. An elegant lady ... (rides/is riding) a horse.
9. Give me some salt, please. I ... (make/am making) seafood salad.
10. Mary never ... (speaks/is speaking) to strange people.

## 3. Используйте глагол в скобках в одном предложении дважды: в Present Simple и в Present Continuous.

*Пример: Tom usually ... in the office but today he ... at the exhibition. (work) – Tom usually works in the office but today he is working at the exhibition. (Обычно Том работает в офисе, но сегодня он работает на выставке.)*

1. I always ... orange juice but now I ... peach juice. (drink)
2. She ... a shower at the moment, though she usually ... it in the morning. (take)
3. Mum often ... cherry-pies but this evening she ... an apple-pie. (bake)
4. As a rule we ... to football matches but this Sunday we... to a hockey match. (go)
5. Marta usually ... jeans but today she ... a dress. (wear)

## Практическое занятие № 5.

**Тема:** Обработка данных. Present Continuous-Present Simple

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Ответить на вопросы, упр.2-3.

### Topical vocabulary

data processing — обработка информации (данных)

to convert — преобразовывать; переводить (в др. единицы)

to accomplish — завершать, заканчивать;

to house ['haus] — помещать, размещать

to improve [im'pru:v] — улучшать, совершенствовать

to control [kan'troul] — управлять, регулировать; управление, регулирование

to store ['sto:] — хранить, запоминать, заносить

storage ['sto:ridʒ] — запоминающее устройство, память; хранение

resource [ri'so:s] — ресурс; средство; возможность

facility — устройство; средство

facilities — приспособления; возможности

equipment — оборудование; аппаратура; приборы; устройства

available — доступный; имеющийся (в наличии); возможный

display [dis'plei] — дисплей; устройство (визуального) отображения; показ

manner — способ, образ (действий)

sequence— последовательность, порядок (следования)  
sucessively — последовательно  
data storage hierarchy — иерархия (последовательность) запоминания информации (данных)  
to enter — входить; вводить (данные); заносить, записывать  
comprehensive groupings — полные, обширные, универсальные образования  
meaningful — имеющий смысл; значащий (о данных)  
item — элемент; составная часть  
record ['reko:d] — запись, регистрация; записывать, регистрировать  
file ['fail] — файл; заносить (хранить) в файл  
set — набор; множество; совокупность; серия; группа; система  
data base ['delta 'beis] — база данных  
related [ri'leitid] — смежный; взаимосвязанный; относящийся (к ч.-л.)

## DATA PROCESSING AND DATA PROCESSING SYSTEMS

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### Basic data processing operations

Five basic operations are characteristic of all data processing systems: inputting, storing, processing, outputting, and controlling. They are defined as follows.

*Inputting* is the process of entering data, which are collected facts, into a data processing system. *Storing* is saving data or information so that they are available for initial or for additional processing. *Processing* represents performing arithmetic or logical operations on data in order to convert them into useful information. *Outputting* is the process of producing useful information, such as a printed report or visual display. *Controlling* is directing the manner and sequence in which all of the above operations are performed.

### Data storage hierarchy

It is known that data, once entered, are organized and stored in successively more comprehensive groupings. Generally, these groupings are called a data storage hierarchy. The general groupings of any data storage hierarchy are as follows.

1) *Characters*, which are all written language symbols: letters, numbers, and special symbols. 2) *Data elements*, which are meaningful collections of related characters. Data elements are also called data items or fields. 3) *Records*, which are collections of related data elements. 4) *Files*, which are collections of related records. A set of related files is called a data base or a data bank.

### 1. Ответьте на вопросы.

1. What is processing? 2. What is data processing? 3. What does the term of data processing system mean?



4. What basic operations does a data processing system include? 5. What is inputting / storing / outputting information? 6. What do you understand by resources? 7. How did ancient Egyptians convert facts into useful information? 8. When were mechanical aids for computation developed? 9. What does data storage hierarchy mean? 10. What are the general groupings of any data storage hierarchy?

**2. Выберите подходящий по смыслу глагол и поставьте его в предложение в форме Present Simple или Present Continuous.**

**to stay - to eat – to play – to wash - to cry - to wait – to watch – to wear - to start – to ride**

1. Every Thursday they ... fish.
2. Hurry up! The kids ... for you.
3. Ron is in Italy now. He ... at a 5-star hotel.
4. Normally Mike ... work at 9 a.m.
5. They ... billiards at weekends.
6. She ... a bike right now.
7. Little Nick is a quiet boy. He never ... .
8. Dad ... TV news regularly.
9. My sister ... the floor in the kitchen at the moment.
10. My wife ... contact lenses every day.

**3. Переведите на английский язык.**

1. Мои родители живут в Австралии.
2. Ты любишь орехи?
3. Ты постоянно занимаешь деньги!
4. Я пользуюсь мобильным телефоном каждый день.
5. Сегодня мы наряжаем новогоднюю елку.
6. У Карла нет братьев.
7. Почему ты смеешься?
8. Джон говорит на трех языках.
9. Сейчас не идет дождь.
10. Мы не помним его адрес.

**Практическое занятие № 6.**

**Тема:** Обработка данных. Present Continuous-Present Simple

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить пересказ текста, упр.2-3.

**Topical vocabulary**

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to convert — преобразовывать; переводить (в др. единицы)

to accomplish — завершать, заканчивать;

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equipment — оборудование; аппаратура; приборы; устройства

available — доступный; имеющийся (в наличии); возможный  
display [dis'plei] — дисплей; устройство (визуального) отображения; показ  
manner — способ, образ (действий)  
sequence — последовательность, порядок (следования)  
sucessively — последовательно  
data storage hierarchy — иерархия (последовательность) запоминания информации (данных)  
to enter — входить; вводить (данные); заносить, записывать  
comprehensive groupings — полные, обширные, универсальные образования  
meaningful — имеющий смысл; значащий (о данных)  
item — элемент; составная часть  
record ['reko:d] — запись, регистрация; записывать, регистрировать  
file ['fail] — файл; заносить (хранить) в файл  
set — набор; множество; совокупность; серия; группа; система  
data base ['delta 'beis] — база данных  
related [ri'leitid] — смежный; взаимосвязанный; относящийся (к ч.-л.)

## DATA PROCESSING AND DATA PROCESSING SYSTEMS

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### Basic data processing operations

Five basic operations are characteristic of all data processing systems: inputting, storing, processing, outputting, and controlling. They are defined as follows.

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### Data storage hierarchy

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### 1. Ответьте на вопросы.

1. What is processing? 2. What is data processing? 3. What does the term of data processing system mean? 4. What basic operations does a data processing system include? 5. What is inputting / storing / outputting information? 6. What do you understand by resources? 7. How did ancient Egyptians convert facts into useful information? 8. When were mechanical aids for computation developed? 9. What does data storage hierarchy mean? 10. What are the general groupings of any data storage hierarchy?

### 2. Восстановите предложения.

1. Claire / work / the bank / into.
2. Tina / properly / her car / park / never / can.
3. The children / help / the housework / always / with.
4. Liza / porridge / for / sometimes / breakfast / have.
5. have / the piano lesson / I / at the moment.
6. He / this evening / come / us / with / not.
7. Mr. Smith / to / not / fly / New York / tomorrow.

### 3. Исправьте ошибки.

1. Liza goes shopping tomorrow.
2. Bob brush his teeth twice a day.
3. I am learning English every day.
4. Peter looks for a new flat these days.
5. She eats an apple at the moment.
6. Do you cook dinner often?
7. She doesn't writes letters very often.

## Практическое занятие № 7.

**Тема:** Преимущества обработки данных. Past Continuous.

**Цель:** Введение и закрепление знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести слова, текст, упр.1-3.

### Topical vocabulary

manual — ручной, выполняемый вручную

to take advantage of smth — воспользоваться ч.-л.

capability — способность; возможность; характеристика

accuracy — точность; правильность; четкость (изображения)

correctly — правильно; верно

to eliminate [e'limineit] — устранять; удалять; отменять; ликвидировать

to make errors — допускать ошибки (погрешности)

error-prone — подверженный ошибкам

to remain vulnerable — оставаться уязвимым, чувствительным

invalid data — неверные, неправильные, недопустимые данные

communications networks — сети передачи данных; сети связи

travel — перемещение; прохождение; путь; ход

instant response ['instant ri'spɒns] — мгновенный ответ (реакция)

to respond [ri'spɒnd] — отвечать; реагировать

access — доступ; обращение; обращаться, иметь доступ

capacity of storage — объем (емкость) памяти

to retrieve [ri'tri:v] — извлекать, выбирать (данные); восстанавливать (файл)

value — значение; величина; значимость; ценность; оценка; оценивать

objective — цель; требование; целевая функция

cost-effective — экономичный; экономически оправданный

challenge — трудность; препятствие; представлять трудность

## ADVANTAGES OF COMPUTER DATA PROCESSING

Computer-oriented data processing systems or just computer data processing systems are not designed to imitate manual systems. They should combine the capabilities of both humans and computers. Computer data processing systems can be designed to take advantage of four capabilities of computers.

**Accuracy.** Once data have been entered correctly into the computer component of a data processing system, the need for further manipulation by humans is eliminated, and the possibility of error is reduced. Computers, when properly programmed, are also unlikely to make computational errors. Of course, computer systems remain vulnerable to the entry by humans of invalid data.

**Ease of communications.** Data, once entered, can be transmitted wherever needed by communications networks. These may be either earth or satellite-based systems. A travel reservations system is an example of a data communications network. Reservation clerks throughout the world may make an enquiry about transportation or lodgings and receive an almost instant response. Another example is an office communications system that provides executives with access to a reservoir of data, called a corporate data base, from their personal microcomputer work stations.

**Capacity of storage.** Computers are able to store vast amounts of information, to organize it, and to retrieve it in ways that are far beyond the capabilities of humans. The amount of data that can be stored on devices such as magnetic discs is constantly increasing. All the while, the cost per character of data stored is decreasing.

**Speed.** The speed, at which computer data processing systems can respond, adds to their value. For example, the travel reservations system mentioned above would not be useful if clients had to wait more than a few seconds for a response. The response required might be a fraction of a second.

Thus, an important objective in the design of computer data processing systems is to allow computers to do what they do best and to free humans from routine, error-prone tasks. The most cost-effective computer data processing system is the one that does the job effectively and at the least cost. By using computers in a cost-effective manner, we will be better able to respond to the challenges and opportunities of our post-industrial, information-dependent society.

### 1. Найдите в тексте английские эквиваленты следующих словосочетаний:

Система обработки информации компьютером; система ориентирования на обработку данных компьютером; сочетать возможности человека и машины; ограничивать управление; вряд ли допустят ошибку; оставаться уязвимым; недопустимые данные; легкость осуществления связи; сеть передачи информации; системы, основанные на использовании спутников; служащие по резервированию жилья; получить мгновенный ответ; наводить справки; хранилище данных; корпоративная база данных; объем памяти; запоминать огромное количество информации; извлекать информацию; добавить значимости; упомянутый выше; доля секунды; подверженный ошибкам; экономически оправданный.

### 2. Раскройте скобки, поставив глаголы в форму Past Continuous.

1. While I \_\_\_\_\_ (to copy) the exercise, my friends \_\_\_\_\_ (to describe) a picture.
2. When we came in, the children \_\_\_\_\_ (to clean) their desks.
3. We met her at the bus stop. She \_\_\_\_\_ (to wait) for the bus.
4. Some of the children \_\_\_\_\_ (to ski) while other children \_\_\_\_\_ (to skate). Everybody \_\_\_\_\_ (to have) a lot of fun.
5. When we came the family \_\_\_\_\_ (to get) everything ready for Christmas. Bob and Helen \_\_\_\_\_ (to decorate) the Christmas tree.

6. The girls \_\_\_\_\_ (to feed) the birds in the garden while the boys \_\_\_\_\_ (to make) a bird-house.

**3. Прочитайте текст, переведите. Подчеркните глаголы в форме Past Continuous. Ответьте на вопрос:**

Who broke the window ?

At 7 o'clock the match started on TV, so Dad was still watching it at 7.30. Mum was sitting in the kitchen. She was quietly reading a woman's magazine. Rosie was trying on her Mum's clothes in her room. Nick's cousins were listening to rock music. It was very loud so they didn't hear the crash. At 7.30 the dogs were lying in front of the fire and they were sleeping. Nick went into the garden with his friend to play football. So at 7.30 he was still there.

**Практическое занятие № 8.**

**Тема:** Преимущества обработки данных. Past Continuous.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Ответить на вопросы. Упр.2-3.

**Topical vocabulary**

manual — ручной, выполняемый вручную

to take advantage of smth — воспользоваться ч.-л.

capability — способность; возможность; характеристика

accuracy — точность; правильность; четкость (изображения)

correctly — правильно; верно

to eliminate [e'limineit] — устранять; удалять; отменять; ликвидировать

to make errors — допускать ошибки (погрешности)

error-prone — подверженный ошибкам

to remain vulnerable — оставаться уязвимым, чувствительным

invalid data — неверные, неправильные, недопустимые данные

communications networks — сети передачи данных; сети связи

travel — перемещение; прохождение; путь; ход

instant response ['instant ri'spons] — мгновенный ответ (реакция)

to respond [ri'spond] — отвечать; реагировать

access — доступ; обращение; обращаться, иметь доступ

capacity of storage — объем (емкость) памяти

to retrieve [ri'tri:v] — извлекать, выбирать (данные); восстанавливать (файл)

value — значение; величина; значимость; ценность; оценка; оценивать

objective — цель; требование; целевая функция

cost-effective — экономичный; экономически оправданный

challenge — трудность; препятствие; представлять трудность

**ADVANTAGES OF COMPUTER DATA PROCESSING**

Computer-oriented data processing systems or just computer data processing systems are not designed to imitate manual systems. They should combine the capabilities of both humans and computers. Computer data processing systems can be designed to take advantage of four capabilities of computers.

**Accuracy.** Once data have been entered correctly into the computer component of a data processing system, the need for further manipulation by humans is eliminated, and the possibility of error is reduced. Computers, when properly programmed, are also unlikely to make computational errors. Of course, computer systems remain vulnerable to the entry by humans of invalid data.

**Ease of communications.** Data, once entered, can be transmitted wherever needed by

communications networks. These may be either earth or satellite-based systems. A travel reservations system is an example of a data communications network. Reservation clerks throughout the world may make an enquiry about transportation or lodgings and receive an almost instant response. Another example is an office communications system that provides executives with access to a reservoir of data, called a corporate data base, from their personal microcomputer work stations.

**Capacity of storage.** Computers are able to store vast amounts of information, to organize it, and to retrieve it in ways that are far beyond the capabilities of humans. The amount of data that can be stored on devices such as magnetic discs is constantly increasing. All the while, the cost per character of data stored is decreasing.

**Speed.** The speed, at which computer data processing systems can respond, adds to their value. For example, the travel reservations system mentioned above would not be useful if clients had to wait more than a few seconds for a response. The response required might be a fraction of a second.

Thus, an important objective in the design of computer data processing systems is to allow computers to do what they do best and to free humans from routine, error-prone tasks. The most cost-effective computer data processing system is the one that does the job effectively and at the least cost. By using computers in a cost-effective manner, we will be better able to respond to the challenges and opportunities of our post-industrial, information-dependent society.

### 1. Ответьте на вопросы, используя информацию текста.

1. What capabilities should data-processing systems combine when designed? 2. What are the main advantages of computers? 3. What do you know of computers accuracy? 4. What is the function of communication networks? 5. Give examples of a data communication network. 6. What do you understand by capacity storage? 7. What other values of computer data processing systems do you know? 8. What is an important objective in the design of computer data processing systems? 9. What is the most effective computer data processing system? 10. What is the best way of responding to the challenges and opportunities of our post-industrial society?

### 2. Допишите предложения по содержанию текста предыдущего упражнения, используя глаголы в Past Continuous.

1. When someone broke the window Dad \_\_\_\_\_
2. When Mum heard the crash she \_\_\_\_\_
3. The cousins didn't hear the noise because they \_\_\_\_\_
4. The dogs when the noise woke them up. \_\_\_\_\_
5. At 7.30 Nick \_\_\_\_\_

### 3. Дайте краткие и полные ответы на вопросы в Past Continuous.

Were you going to the cinema at 7 o'clock?

—Yes, I was. I was going to the cinema.

—No, I wasn't. I wasn't going to the cinema.

1. Were you having dinner at 2 o'clock?
2. Was your friend sitting in the yard when you saw him?
3. Was your mother cooking when you came home?
4. Was your sister reading when you called her?
5. Were the children sitting at their desks when you entered the classroom?
6. Were the little children running along the corridor when the lesson began?
7. Were you doing your homework at 7 o'clock last night?
8. Was your father working in the garden when you asked him to dinner?

## Практическое занятие № 9.

**Тема:** Преимущества обработки данных. Past Continuous.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить пересказ текста, упр.2-5

### Topical vocabulary

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to take advantage of smth — воспользоваться ч.-л.

capability — способность; возможность; характеристика

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**1. Ответьте на вопросы, используя информацию текста.**

1. What capabilities should data-processing systems combine when designed? 2. What are the main advantages of computers? 3. What do you know of computers accuracy? 4. What is the function of communication networks? 5. Give examples of a data communication network. 6. What do you understand by capacity storage? 7. What other values of computer data processing systems do you know? 8. What is an important objective in the design of computer data processing systems? 9. What is the most effective computer data processing system? 10. What is the best way of responding to the challenges and opportunities of our post-industrial society?

**2. Задайте вопросы к предложениям, используя слова и фразы в скобках. Ответьте на вопросы.**

After the lesson Victor was explaining the new rule, (to you)

— Was Victor explaining the new rule to you?

— Yes, he was. He was explaining the new rule to me.

The children were decorating their classroom. (when)

— When were they decorating the classroom?

— They were decorating it after the lessons.

1. When I went into the yard, the boys were playing, (football)
2. When we were playing, Bob was shouting. (loudly)
3. I met Victor in the street. He was running quickly, (where)
4. The weather was fine, the sun was shining, (all day)
5. Nick was watching his little sister in the garden. (why)
6. His sister was helping him to pack his things when I came, (what things)
7. They were cooking dinner at that time, (with whom)
8. I was waiting for him at 3 o'clock yesterday. (where)
9. He was looking for something when I came in. (what)
10. They were laughing when I entered the classroom. (why)

**3. Спросите друзей, что они делали прошлой субботой в 10 часов утра. Используйте следующие слова и выражения:**

To watch, to listen to, to carry, to look at, to wait for, to explain something to somebody, to work, to sit, to play.

**4. Вставьте подходящие по смыслу глаголы в форме Past Continuous.**

play swim feed sleep laugh

Yesterday we went to the zoo and saw there a lot of animals. First we went to see the white bears. They \_\_\_\_\_. Then we went to the cage with monkeys. There were a lot of children in front of the cage. They \_\_\_\_\_ because a monkey in the the cage \_\_\_\_\_. After that we went to see the



elephant. There was a man there. He \_\_\_\_\_ the elephant. But we \_\_\_\_\_ see much of the lions. They \_\_\_\_\_.

**5. Из имеющихся слов составьте вопросы к готовым ответам. Все вопросы должны быть в Past Continuous.**

1. Where | the white bears | swimming | were ?  
- In the swimming pool.
2. It | was | raining ?  
- Oh, no. It wasn't. The sun was shining brightly.
3. The elephant | what | eating | was ?  
- Some grass and fruit.
4. What | was | playing with | the monkey ?  
— With a small ball.
5. Were | how many lions | sleeping in the cage?  
— Both of them

**Практическое занятие № 10.**

**Тема:** Архитектура ЭВМ. Future Continuous.

**Цель:** Введение и закрепление лексического и грамматического материала.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, грамматические таблицы, словарь.

**Задание:** Прочитать и перевести слова, текст, упр.1-3.

**Topical vocabulary**

architecture — архитектура; структура

architect — разработчик архитектуры (системы, структуры)

unit ['ju:nit] — устройство; модуль; блок; элемент; составная часть

accessory equipment — вспомогательные устройства

engineering background — техническая подготовка, квалификация

analyst — аналитик; системный разработчик

product line — серия (компьютерных) продуктов

manufacturer — изготовитель; производитель; разработчик

application programmer — прикладной программист

to simulate ['simjuleit] — моделировать; имитировать

voltage — напряжение

pressure — давление, сжатие

digital computer — цифровой компьютер

hybrid computer ['haibrid] — смешанного типа, аналого- цифровой компьютер

discrete [dis'kri:t] — дискретный; отдельный

continuous quantity — непрерывная величина

on-going process — продолжающийся, постоянный, непрерывный процесс

to rely — основываться на ч.-л.; полагаться

to install — устанавливать; размещать; монтировать; настраивать

household appliances — домашние приборы / устройства

microwave oven — микроволновая печь

indoor climate control system — система регуляции температуры в доме

**COMPUTER SYSTEM ARCHITECTURE**

As we know all computer systems perform the functions of inputting, storing, processing, controlling, and outputting. Now we'll get acquainted with the computer system units that perform these functions. But to begin with let's examine computer systems from the perspective of the system designer,

or architect.

It should be noted that computers and their accessory equipment are designed by a **computer system architect**, who usually has a strong engineering background. As contrasted with the **analyst**, who uses a computer to solve specific problems, the computer system architect usually designs computer that can be used for many different applications in many different business. For example, the product lines of major computer manufacturers such as IBM, Digital Equipment Corporation and many others are the result of the efforts of teams of computer system architects.

Unless you are studying engineering, you don't need to become a computer system architect. However, it is important that as a potential user, applications programmer or systems analyst you understand the functions of the major units of a computer system and how they work together.

### **Types of computers**

The two basic types of computers are analog and digital. **Analog computers** simulate physical systems. They operate on the basis of an analogy to the process that is being studied. For example, a voltage may be used to represent other physical quantities such as speed, temperature, or pressure. The response of an analog computer is based upon the measurement of signals that vary continuously with time.

Hence, analog computers are used in applications that require continuous measurement and control. **Digital computers**, as contrasted with analog computers, deal with discrete rather than continuous quantities. They count rather than measure. They use numbers instead of analogous physical quantities to simulate on-going, or real-time processes. Because they are discrete events, commercial transactions are in a natural form for digital computation. This is one reason that digital computers are so widely used in business data processing.

Machines that combine both analog and digital capabilities are called **hybrid computers**. Many business, scientific, and industrial computer applications rely on the combination of analog and digital devices. The use of combination analog devices will continue to increase with the growth in applications of microprocessors and microcomputers. An example of this growth is the trend toward installing control systems in household appliances such as microwave ovens and sewing machines: In the future we will have complete indoor climate control systems and robots to do our housecleaning. Analog sensors will provide inputs to the control centres of these systems, which will be small digital computers.

### **1. Найдите в тексте английские эквиваленты следующих словосочетаний:**

Функции ввода, хранения, обработки, управления и вывода информации; познакомиться; системные блоки; для начала; вспомогательные устройства; разработчик компьютерной системы; хорошая компьютерная подготовка; различные сферы применения; корпорация цифрового оборудования; прикладной программист; системный разработчик; главные устройства компьютерной системы; моделировать физические величины; измерение сигналов; в отличие от; иметь дело скорее с дискретными, чем непрерывными величинами; в режиме реального времени; коммерческие операции; цифровое вычисление; аналого- цифровые компьютеры; тенденция к установке систем управления; бытовые приборы.

### **2. Вставьте Future Continuous.**

1. This time next Monday, I \_\_\_\_\_ in a huge office in New York. (work)
2. This time on Tuesday, Mary \_\_\_\_\_ on a beach in Italy. (sunbathe)
3. Don't make noise after midnight – I \_\_\_\_\_ soundly, I hope. (sleep)
4. Jackeline \_\_\_\_\_ to Kenya tomorrow at this time. (fly)
5. Students \_\_\_\_\_ copies while he \_\_\_\_\_ the report. (make/ finish)
6. I \_\_\_\_\_ in my study library at 6pm tomorrow. (work).
7. This time next year we \_\_\_\_\_ the Pacific Ocean. (cross)
8. I \_\_\_\_\_ the dinner table while my mother \_\_\_\_\_ the meat. (lay / prepare)
9. You'll recognize Molly! She \_\_\_\_\_ a pink hat. (wear)
10. From 7 till 12 I \_\_\_\_\_ classes. (have)
11. \_\_\_\_\_ you \_\_\_\_\_ your bike this evening? (use)

12. My auntie and uncle \_\_\_\_\_ with us this weekend. (stay)
13. I \_\_\_\_\_ television from ten pm to midnight. (to watch)
14. This time on Friday I \_\_\_\_\_ on the beach. (to lie)
15. What \_\_\_\_\_ you \_\_\_\_\_ tomorrow evening? (to do)

### 3. Ответьте на вопросы, используя Future Continuous.

Example: What will Owen be doing? (drive to the seaside)

Owen will be driving to the seaside.

1. What Zana be doing? (make a skirt)
2. What Michael be doing? (swim in the Red Sea)
3. What will Paul's grandfather be doing? (work in the orchard)
4. What will Greg be doing at the University? (study languages)
5. What will Megan's mother be doing? (fly to Mumbai)
6. What will the singer be doing at the concert? (sing songs)
7. What will the journalist be doing? (interview the President)
8. What will the professor be doing next September? (reading lectures)

### Практическое занятие № 11.

**Тема:** Архитектура ЭВМ. Future Continuous.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, грамматические таблицы, словарь.

**Задание:** Ответить на вопросы, упр.2-3.

#### Topical vocabulary

architecture — архитектура; структура

architect — разработчик архитектуры (системы, структуры)

unit ['ju:nit] — устройство; модуль; блок; элемент; составная часть

accessory equipment — вспомогательные устройства

engineering background — техническая подготовка, квалификация

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pressure — давление, сжатие

digital computer — цифровой компьютер

hybrid computer ['haibrid] — смешанного типа, аналого- цифровой компьютер

discrete [dis'kri:t] — дискретный; отдельный

continuous quantity — непрерывная величина

on-going process — продолжающийся, постоянный, непрерывный процесс

to rely — основываться на ч.-л.; полагаться

to install — устанавливать; размещать; монтировать; настраивать

household appliances — домашние приборы / устройства

microwave oven — микроволновая печь

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Unless you are studying engineering, you don't need to become a computer system architect. However, it is important that as a potential user, applications programmer or systems analyst you understand the functions of the major units of a computer system and how they work together.

### Types of computers

The two basic types of computers are analog and digital. *Analog computers* simulate physical systems. They operate on the basis of an analogy to the process that is being studied. For example, a voltage may be used to represent other physical quantities such as speed, temperature, or pressure. The response of an analog computer is based upon the measurement of signals that vary continuously with time.

Hence, analog computers are used in applications that require continuous measurement and control. *Digital computers*, as contrasted with analog computers, deal with discrete rather than continuous quantities. They count rather than measure. They use numbers instead of analogous physical quantities to simulate on-going, or real-time processes. Because they are discrete events, commercial transactions are in a natural form for digital computation. This is one reason that digital computers are so widely used in business data processing.

Machines that combine both analog and digital capabilities are called *hybrid computers*. Many business, scientific, and industrial computer applications rely on the combination of analog and digital devices. The use of combination analog devices will continue to increase with the growth in applications of microprocessors and microcomputers. An example of this growth is the trend toward installing control systems in household appliances such as microwave ovens and sewing machines: In the future we will have complete indoor climate control systems and robots to do our housecleaning. Analog sensors will provide inputs to the control centres of these systems, which will be small digital computers.

### 1. Ответьте на вопросы, используя информацию текста.

1. Who designs computers and their accessory equipment? 2. What is the role of an analyst? 3. Is it necessary for a user to become a computer system architect? 4. What functions do computer systems perform? 5. What types of computers do you know? 6. What is the principle of operation of analog computers? 7. How do digital computers differ from analog computers? 8. Where are digital and analog computers used? 9. What are hybrid computers? 10. Where do they find application?

### 2. Развейте мысль, используя Future Continuous.

Example: Don't call Greg at seven. (have a bath)

Don't call Greg at seven, he will be having a bath.

1. Don't leave the tiny newborn alone. (cry)
2. Don't call on Steven tonight. (pack)
3. Don't ring anybody up at six am. (sleep)
4. Don't wait for Melody tomorrow, (train)

5. Don't tell your Granny. (grumble)
6. Don't expect Molly to come on Saturday, (work)
7. Don't come to see Miranda after lunch. (typing her novel)
8. Don't send Molly any letters in July. (travel)

### 3. Переведите на английский. Используйте Future Continuous.

1. Сегодня в кино ты будешь сидеть со мной.
2. Андрей будет ждать тебя возле гипермаркета в 4.
3. Ты пообедаешь со мной завтра? – В это время я сдаю экзамен.
4. Интересно, чем будут заняты дети, пока мы будем наслаждаться концертом.
5. Как я узнаю Тома? На нем будет зеленое пальто.
6. Интересно, будем ли мы все еще встречаться через год.
7. Если ты ей расскажешь, она будет плакать.
8. Чем ты будешь занят завтра в шесть?
9. Уже через час Гриша будет работать в огороде.

### Практическое занятие № 12.

**Тема:** Архитектура ЭВМ. Future Continuous.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, грамматические таблицы, словарь.

**Задание:** Составить пересказ текста, упр.3.

#### Topical vocabulary

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architect — разработчик архитектуры (системы, структуры)

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indoor climate control system — система регуляции температуры в доме

### COMPUTER SYSTEM ARCHITECTURE

As we know all computer systems perform the functions of inputting, storing, processing, controlling, and outputting. Now we'll get acquainted with the computer system units that perform these functions. But to begin with let's examine computer systems from the perspective of the system designer, or architect.

It should be noted that computers and their accessory equipment are designed by a **computer system architect**, who usually has a strong engineering background. As contrasted with the **analyst**, who uses a computer to solve specific problems, the computer system architect usually designs computer that can be used for many different applications in many different business. For example, the product lines of major computer manufacturers such as IBM, Digital Equipment Corporation and many others are the result of the efforts of teams of computer system architects.

Unless you are studying engineering, you don't need to become a computer system architect. However, it is important that as a potential user, applications programmer or systems analyst you understand the functions of the major units of a computer system and how they work together.

### Types of computers

The two basic types of computers are analog and digital. **Analog computers** simulate physical systems. They operate on the basis of an analogy to the process that is being studied. For example, a voltage may be used to represent other physical quantities such as speed, temperature, or pressure. The response of an analog computer is based upon the measurement of signals that vary continuously with time.

Hence, analog computers are used in applications that require continuous measurement and control. **Digital computers**, as contrasted with analog computers, deal with discrete rather than continuous quantities. They count rather than measure. They use numbers instead of analogous physical quantities to simulate on-going, or real-time processes. Because they are discrete events, commercial transactions are in a natural form for digital computation. This is one reason that digital computers are so widely used in business data processing.

Machines that combine both analog and digital capabilities are called **hybrid computers**. Many business, scientific, and industrial computer applications rely on the combination of analog and digital devices. The use of combination analog devices will continue to increase with the growth in applications of microprocessors and microcomputers. An example of this growth is the trend toward installing control systems in household appliances such as microwave ovens and sewing machines: In the future we will have complete indoor climate control systems and robots to do our housecleaning. Analog sensors will provide inputs to the control centres of these systems, which will be small digital computers.

### 1. Ответьте на вопросы, используя информацию текста.

1. Who designs computers and their accessory equipment? 2. What is the role of an analyst? 3. Is it necessary for a user to become a computer system architect? 4. What functions do computer systems perform? 5. What types of computers do you know? 6. What is the principle of operation of analog computers? 7. How do digital computers differ from analog computers? 8. Where are digital and analog computers used? 9. What are hybrid computers? 10. Where do they find application?

### 2. Употребите глаголы в Future Continuous или Future Simple.

1. Next year they \_\_\_\_\_ (live) in Spain.
2. It's nearly autumn, soon the leaves \_\_\_\_\_ (change) colour.
3. At four o'clock on Tuesday afternoon we \_\_\_\_\_ (fly) over Paris.
4. Don't phone them now: they \_\_\_\_\_ (have) dinner.
5. I don't like that man and I \_\_\_\_\_ (not help) him.
6. I \_\_\_\_\_ (work) at home tomorrow. You can call me there.
7. She \_\_\_\_\_ (stay) in Leeds all weekend.
8. Your face is dirty. – All right. I \_\_\_\_\_ (wash) it.
9. What you \_\_\_\_\_ (do) early on Monday night?
10. Will you have lunch with me on the 24<sup>th</sup>? – I'd love to, but I'm afraid I \_\_\_\_\_ (do) exam then.
11. Let's hurry up! It \_\_\_\_\_ (start) raining in a minute.

12. It's five o'clock and my girlfriend is waiting for me outside. I'm afraid she \_\_\_\_\_  
(not wait) long
13. You \_\_\_\_\_ (travel) in summer again? – Yes, we \_\_\_\_\_ (go)  
to the Crimea.

### Практическое занятие № 13.

**Тема:** Программное обеспечение. Present Perfect.

**Цель:** Введение и закрепление лексического и грамматического материала.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести слова, текст, упр.1-3.

#### Topical vocabulary

hardware — аппаратное обеспечение; аппаратура; оборудование

software — программное обеспечение; программные средства

system software — системное программное обеспечение

application software — прикладное программное обеспечение

firmware — встроенное /микропроцессорное программное обеспечение

visible units — видимый блок, устройство

procedure — процедура, процесс; метод, методика; алгоритм

to associate — соединять; объединять; связывать

associated documentation — соответствующая документация

to execute applications programs — выполнять прикладные программы

payroll — платежная ведомость

inventory control — инвентаризация; переучет

investment analyses — анализ инвестиций (капиталовложений)

to protect — защищать

read only memory (ROM) — постоянное запоминающее устройство (ПЗУ)

to refer to — относиться к; ссылаться на

to substitute — заменять; замещать

to cause — заставлять, вынуждать; причина, основание

to accomplish — завершать, заканчивать; выполнять, осуществлять

performance — производительность; быстроедействие; рабочая характеристика

### HARDWARE, SOFTWARE, AND FIRMWARE

The units that are visible in any computer are the physical components of a data processing system, or **hardware**. Thus, the input, storage, processing and control devices are hardware. Not visible is the **software** — the set of computer programs, procedures, and associated documentation that make possible the effective operation of the computer system. Software programs are of two types: systems software and applications software.

**Systems software** are the programs designed to control the operation of a computer system. They do not solve specific problems. They are written to assist people in the use of the computer system by performing tasks, such as controlling all of the operations required, to move data into and out of a computer and all of the steps in executing an application program. The person who prepares systems software is referred to as a systems programmer. Systems programmers are highly trained specialists and important members of the architectural team.

**Applications software** are the programs written to solve specific problems (applications), such as payroll, inventory control, and investment analysis. The word program usually refers to an application program, and the word programmer is usually a person who prepares applications software. Often programs, particularly systems software, are stored in an area of memory not used for applications software. These protected programs are stored in an area of memory called read-only memory (ROM), which can be read from but not written on.

**Firmware** is a term that is commonly used to describe certain programs that are stored in ROM. Firmware often refers to a sequence of instructions (software) that is substituted for hardware. For

example, in an instance where cost is more important than performance, the computer system architect might decide not to use special electronic circuits (hardware) to multiply two numbers, but instead write instructions (software) to cause the machine to accomplish the same function by repeated use of circuits already designed to perform addition.

### 1. Найдите в тексте английские эквиваленты следующих словосочетаний:

Видимые устройства; система обработки данных; аппаратное обеспечение; набор компьютерных программ; соответствующая документация; эффективная работа; системное программное обеспечение; прикладное программное обеспечение; системный программист; платежная ведомость; переучет; анализ инвестиций; прикладная программа; работающий только в режиме чтения; постоянное запоминающее устройство; последовательность команд; в случае; производительность; электронная цепь; умножать числа; заставить машину выполнять ту же функцию; выполнять сложение.

### 2. Напишите 3 формы глаголов:

catch.....	forget.....	get .....
meet.....	see.....	teach.....
read.....	rain.....	come.....
sleep.....	dance.....	walk.....
happen.....	break.....	think.....

### 3. Поставьте предложения в Present Perfect.

1. She.....(just break) a vase.
2. We.....(already clean) the room.
3. I.....(just make) the bed.
4. He.....(phone) his friend.
5. It.....(start) raining.
6. A little girl.....(cut) her finger.
7. He.....(eat) all the cakes.
8. Sally.....(wash) the dishes.
9. The plane.....(fly) away.
10. He.....(leave) the house.

## Практическое занятие № 14.

**Тема:** Программное обеспечение. Present Perfect.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Ответить на вопросы, упр.2-3.

### Topical vocabulary

hardware — аппаратное обеспечение; аппаратура; оборудование  
software — программное обеспечение; программные средства  
system software — системное программное обеспечение  
application software — прикладное программное обеспечение  
firmware — встроенное /микропроцессорное программное обеспечение  
visible units — видимый блок, устройство  
procedure — процедура, процесс; метод, методика; алгоритм  
to associate — соединять; объединять; связывать  
associated documentation — соответствующая документация  
to execute applications programs — выполнять прикладные программы  
payroll — платежная ведомость



inventory control — инвентаризация; переучет  
investment analyses — анализ инвестиций (капиталовложений)  
to protect — защищать  
read only memory (ROM) — постоянное запоминающее устройство (ПЗУ)  
to refer to — относиться к; ссылаться на  
to substitute — заменять; замещать  
to cause — заставлять, вынуждать; причина, основание  
to accomplish — завершать, заканчивать; выполнять, осуществлять  
performance — производительность; быстроедействие; рабочая характеристика

### **HARDWARE, SOFTWARE, AND FIRMWARE**

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*Firmware* is a term that is commonly used to describe certain programs that are stored in ROM. Firmware often refers to a sequence of instructions (software) that is substituted for hardware. For example, in an instance where cost is more important than performance, the computer system architect might decide not to use special electronic circuits (hardware) to multiply two numbers, but instead write instructions (software) to cause the machine to accomplish the same function by repeated use of circuits already designed to perform addition.

#### **1. Ответьте на вопросы, используя информацию текста.**

1. What is hardware?
2. Give the definition of software.
3. What are the types of software?
4. What are systems software?
5. What kind of tasks do systems software perform?
6. Who prepares systems software?
7. What are applications software?
8. What problems do applications software solve?
9. What is firmware?
10. How can a computer system architect use firmware?

#### **2. Что обозначает -'s— (has или is)? Напиши предложения без сокращений.**

1. She's gone to the shop.
2. She's very angry.
3. I think Emily's right.
4. He's lived here for ten years.
5. He's always hungry.
6. What's happened?
7. The shop's open every day.
8. Joe's got a bad cold.
9. Jane's happy.
10. Sam's been to Washington.

**3. Вставь for или since. Расставь словосочетания в два столбика. Составь предложения с некоторыми из них.**

.....1999                .....six days                .....two weeks  
.....yesterday        .....a month                ..... ages

**Практическое занятие № 15.**

**Тема:** Программное обеспечение. Present Perfect.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить пересказ текста, упр.2-3.

**Topical vocabulary**

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software — программное обеспечение; программные средства

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procedure — процедура, процесс; метод, методика; алгоритм

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to cause — заставлять, вынуждать; причина, основание

to accomplish — завершать, заканчивать; выполнять, осуществлять

performance — производительность; быстрдействие; рабочая характеристика

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**1. Ответьте на вопросы, используя информацию текста.**

1. What is hardware?
2. Give the definition of software.
3. What are the types of software?
4. What are systems software?
5. What kind of tasks do systems software perform?
6. Who prepares systems software?
7. What are applications software?
8. What problems do applications software solve?
9. What is firmware?
10. How can a computer system architect use firmware?

**2. Вставьте ago, already, just, since, for или last.**

2. He has known her.....1999.
3. She hasn't finished her work.....
4. Have you ..... seen a lion?
6. He has been in Paris..... three years.
7. She has..... finished cooking dinner.
8. Tom hasn't learnt the poem.....
9. We have.....seen the film.
10. She has not cleaned the rooms.....
12. She has worked in the hospital..... April.

**3. Переведите на русский язык, обращая внимание на многозначность глагола to have:**

1. He has blue eyes.
2. I've got a headache.
3. We have to go shopping today.
4. They have been to London this year.
5. I haven't got a camera.
6. Do you have to go to work today?
7. My friend has bought a car lately.
8. There was no bus, so I had to walk home.
9. In our country men have to do military service.
10. How long have you lived in Moscow?
11. When I came home, mother had already cooked dinner.
12. Did he have to go to work last Monday?
13. Have you had dinner yet?

**Практическое занятие № 16.**

**Тема:** Цифровые компьютеры. Present Perfect - Past Simple.

**Цель:** Введение и закрепление лексического и грамматического материала.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести слова, текст, упр.1-3.

**Topical vocabulary**

operation — операция; работа; действие; срабатывание

to relate — связывать; устанавливать отношения

a broad view — широкий взгляд, обзор

unit — устройство; модуль, блок; узел! элемент; ячейка

input — ввод; устройство ввода; вводить; подавать на вход

to insert — вставлять; вносить; включать

storage = memory — память; запоминающее устройство

available — доступный; имеющийся в наличии

at the appropriate time — в нужное время

arithmetic-logical unit — арифметико-логическое устройство

output — вывод; устройство вывода; выводить; подавать на выход

to remove — удалять; устранять; вынимать; исключать

control unit — блок управления

cause — заставлять; вынуждать; быть причиной; причина; основание

to feed (fed, fed) — подавать; питать; вводить (данные)

to interpret — интерпретировать; истолковывать

to issue commands — выдавать команды

pulse — no-pulse — (есть) импульс — холостой импульс

## FUNCTIONAL UNITS OF DIGITAL COMPUTERS

As we know, all computer operations can be grouped into five functional categories. The method in which these five functional categories are related to one another represents the functional organization of a digital computer. By studying the functional organization, a broad view of the computer is received.

The five major functional units of a digital computer are:

1) *Input* — to insert outside information into the machine;

2) *Storage or memory* — to store information and make it available at the appropriate time; 3) *Arithmetic-logical unit* — to perform the calculations; 4) *Output* — to remove data from the machine to the outside world and 5) *Control unit* — to cause all parts of a computer to act as a team.

A complete set of instructions and data are usually fed through the input equipment to the memory where they are stored. Each instruction is then fed to the control unit. The control unit interprets the instructions and issues commands to the other functional units to cause operations to be performed on the data. Arithmetic operations are performed in the arithmetic-logical unit, and the results are then fed back to the memory. Information may be fed from either the arithmetic unit or the memory through the output equipment to the outside world.

The five units of the computer must communicate with each other. They can do this by means of a machine language which uses a code composed of combinations of electric pulses. These pulse combinations are usually represented by *zeros* and *ones*, where the *one* may be a pulse and the *zero* — a no-pulse. Numbers are communicated between one unit and another by means of these one-zero or pulse — no-pulse combinations. The input has the additional job of converting the information fed in by the operator into machine language. In other words, it translates from our language into the pulse — no-pulse combinations understandable to the computer. The output's additional job is converting the pulse — no-pulse combinations into a form understandable to us, such as a printed report.

### 1. Найдите в тексте английские эквиваленты следующих словосочетаний:

Функциональная организация; действия компьютера; связывать друг с другом; вводить информацию извне; делать информацию доступной; выполнять вычисления; выводить информацию; блок управления; выдавать команды; заставлять выполнять команды; выходное устройство; внешний мир; связываться друг с другом; комбинация электрических импульсов; холостой импульс; импульсы, распознаваемые компьютером.

### 2. Вставьте *yet, ago, already, just, since, for* или *last*.

1. My friend went to America two days .....
2. He has known her .....1999.
3. She hasn't finished her work .....
4. Have you ..... seen a lion?
5. We visited our friend .....week.
6. He has been in Paris ..... three years.
7. She has..... finished cooking dinner.
8. Tom hasn't learnt the poem .....
9. We have ..... seen the film.
10. She has not cleaned the rooms.....

### 3. Поставьте глаголы в скобках в нужном времени. (Обращай внимание на показатели времени.)

1. Josh.....(finish) school some years ago.
2. Dick.....(finish ) his work yet.
3. He ,.....(study) Russian before the war.
4. We.....(have) little trouble with him so far.
5. They ,.....(be) in Moscow since 1980.
6. She.....(make ) progress in English since she started learning it.
7. The telegram.....(come) just a minute ago.
8. ....you (be) to Scotland?
9. He.....(work) here for three years.
10. He ..... (write) the letter already.

### **Практическое занятие № 17.**

**Тема:** Цифровые компьютеры. Present Perfect - Past Simple

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Ответить на вопросы, упр.2-3.

#### **Topical vocabulary**

operation — операция; работа; действие; срабатывание

to relate — связывать; устанавливая отношения

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to remove — удалять; устранять; вынимать; исключать

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to feed (fed, fed) — подавать; питать; вводить (данные)

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equipment to the outside world.

The five units of the computer must communicate with each other. They can do this by means of a machine language which uses a code composed of combinations of electric pulses. These pulse combinations are usually represented by *zeros* and *ones*, where the *one* may be a pulse and the *zero* — a no-pulse. Numbers are communicated between one unit and another by means of these one-zero or pulse — no-pulse combinations. The input has the additional job of converting the information fed in by the operator into machine language. In other words, it translates from our language into the pulse — no-pulse combinations understandable to the computer. The output's additional job is converting the pulse — no-pulse combinations into a form understandable to us, such as a printed report.

**1. Дайте ответы на вопросы, используя информацию текста.**

1. What represents the functional organization of a computer? 2. What can we get by studying the functional organization? 3. What is the function of the input device? 4. What does memory serve for? 5. What is the task of the arithmetic-logical unit? 6. What is the function of the output? 7. What is the main purpose of the control unit? 8. How do all units of the computer communicate with each other? 9. What is the additional job of the input? 10. What is the additional function of the output?

**2. Выберите правильный ответ.**

1. He \_\_\_\_\_ in Chicago in 2003.  
has been  
was
2. He \_\_\_\_\_ Japan.  
has never visited  
never visited
3. She \_\_\_\_\_ in this company since 2005.  
has worked  
worked
4. How long \_\_\_\_\_ Anna?  
have you known  
did you know
5. When \_\_\_\_\_ Mike?  
have you seen  
did you see
6. Wait! I \_\_\_\_\_ my story yet.  
haven't finished  
didn't finish
7. They \_\_\_\_\_ this movie four or five times already.  
have seen  
saw
8. \_\_\_\_\_ a bus before?  
Have you ever driven  
Did you ever drive
9. I \_\_\_\_\_ to her just a minute ago.  
have talked  
talked
10. So far, she \_\_\_\_\_ five books by Sidney Sheldon.  
has read  
read

**3. Переведите на английский язык:**

1. Ты когда-нибудь был в Нью-Йорке?
2. Я только что пришел.

3. Он никогда не ел устриц.
4. Вы уже сделали домашнее задание? Нет, еще не сделали.
5. Мой друг купил машину в этом году.

### Практическое занятие № 18.

**Тема:** Цифровые компьютеры. Present Perfect - Past Simple

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить пересказ текста, упр.2-3.

#### Topical vocabulary

operation — операция; работа; действие; срабатывание  
 to relate — связывать; устанавливать отношения  
 a broad view — широкий взгляд, обзор  
 unit — устройство; модуль, блок; узел; элемент; ячейка  
 input — ввод; устройство ввода; вводить; подавать на вход  
 to insert — вставлять; вносить; включать  
 storage = memory — память; запоминающее устройство  
 available — доступный; имеющийся в наличии  
 at the appropriate time — в нужное время  
 arithmetic-logical unit — арифметико-логическое устройство  
 output — вывод; устройство вывода; выводить; подавать на выход  
 to remove — удалять; устранять; вынимать; исключать  
 control unit — блок управления  
 cause — заставлять; вынуждать; быть причиной; причина; основание  
 to feed (fed, fed) — подавать; питать; вводить (данные)  
 to interpret — интерпретировать; истолковывать  
 to issue commands — выдавать команды  
 pulse — no-pulse — (есть) импульс — холостой импульс

### FUNCTIONAL UNITS OF DIGITAL COMPUTERS

As we know, all computer operations can be grouped into five functional categories. The method in which these five functional categories are related to one another represents the functional organization of a digital computer. By studying the functional organization, a broad view of the computer is received.

The five major functional units of a digital computer are:

- 1) *Input* — to insert outside information into the machine;
- 2) *Storage or memory* — to store information and make it available at the appropriate time;
- 3) *Arithmetic-logical unit* — to perform the calculations;
- 4) *Output* — to remove data from the machine to the outside world and
- 5) *Control unit* — to cause all parts of a computer to act as a team.

A complete set of instructions and data are usually fed through the input equipment to the memory where they are stored. Each instruction is then fed to the control unit. The control unit interprets the instructions and issues commands to the other functional units to cause operations to be performed on the data. Arithmetic operations are performed in the arithmetic-logical unit, and the results are then fed back to the memory. Information may be fed from either the arithmetic unit or the memory through the output equipment to the outside world.

The five units of the computer must communicate with each other. They can do this by means of a machine language which uses a code composed of combinations of electric pulses. These pulse combinations are usually represented by *zeros* and *ones*, where the *one* may be a pulse and the *zero* — a no-pulse. Numbers are communicated between one unit and another by means of these one-zero or pulse — no-pulse combinations. The input has the additional job of converting the information fed in by the operator into machine language. In other words, it translates from our language into the pulse — no-pulse

combinations understandable to the computer. The output's additional job is converting the pulse — no-pulse combinations into a form understandable to us, such as a printed report.

### 1. Дайте ответы на вопросы, используя информацию текста.

1. What represents the functional organization of a computer? 2. What can we get by studying the functional organization? 3. What is the function of the input device? 4. What does memory serve for? 5. What is the task of the arithmetic-logical unit? 6. What is the function of the output? 7. What is the main purpose of the control unit? 8. How do all units of the computer communicate with each other? 9. What is the additional job of the input? 10. What is the additional function of the output?

### 2. Поставьте глаголы в форму Past Simple или Present Perfect.

1. I \_\_\_\_\_ (never/ be) to the USA. I \_\_\_\_\_ (want) to go there last summer but I couldn't.
2. He \_\_\_\_\_ (live) in this street all his life.
3. His father \_\_\_\_\_ (come back) to London last Sunday.
4. Yan \_\_\_\_\_ (write) a letter to Nick two days ago.
5. He \_\_\_\_\_ (send) his letter yesterday.
6. They \_\_\_\_\_ (just/ buy) some postcards.

### 3. Выберите правильный вариант.

1. She has /'s had a moped since she was 15.
2. We took /'ve taken a taxi to town that morning.
3. We played /'ve played volleyball last night
4. I'm really hungry. I didn't eat / haven't eaten since last night.
5. They visited/ 've visited Colorado last summer.

## Практическое занятие № 19.

**Тема:** Программирование. Past Perfect.

**Цель:** Введение и закрепление лексического и грамматического материала.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести, слова, текст, упр. 1-4.

### Topical vocabulary

equation — уравнение, приравнивание

list of instructions — перечень команд

guard ['ga:d] — защищать; предохранять; завершать; заканчивать

appropriate sequence — необходимая (требуемая) последовательность

program logic — логическая последовательность выполнения программы

flowchart — блок-схема; составлять блок-схему

flowcharting — построение блок-схемы

pictorial representation — наглядное представление

predefined symbols — заранее заданные символы

specifics — специальные черты; характерные особенности

emplate — шаблон; маска; образец; эталон

pseudocode ['psju:doukoud] — псевдокод; псевдопрограмма

burden — издержки; затраты

programming rules — правила программирования

consume — потреблять; расходовать

emphasize — выделять; подчеркивать

top-down approach — принцип нисходящей разработки

looping logic — логическая схема выполнения (операций) в цикле



## COMPUTER PROGRAMMING

Programming is the process of preparing a set of coded instructions which enables the computer to solve specific problems or to perform specific functions. The essence of computer programming is the encoding of the program for the computer by means of algorithms. The thing is that any problem is expressed in mathematical terms, it contains formulae, equations and calculations. But the computer cannot manipulate formulae, equations and calculations. Any problem must be specially processed for the computer to understand it, that is — coded or programmed.

The phase in which the system's computer programs are written is called the development phase. The programs are lists of instructions that will be followed by the control unit of the central processing unit (CPU). The instructions of the program must be complete and in the appropriate sequence, or else the wrong answers will result. To guard against these errors in logic and to document the program's logical approach, logic plans should be developed.

There are two common techniques for planning the logic of a program. The first technique is flowcharting. A flowchart is a plan in the form of a graphic or pictorial representation that uses predefined symbols to illustrate the program logic. It is, therefore, a "picture" of the logical steps to be performed by the computer. Each of the predefined symbol shapes stands for a general operation. The symbol shape communicates the nature of the general operation, and the specifics are written within the symbol. A plastic or metal guide called a template is used to make drawing the symbols easier.

The second technique for planning program logic is called pseudocode. Pseudocode is an imitation of actual program instructions. It allows a program-like structure without the burden of programming rules to follow. Pseudocode has three basic structures: sequence, decision, and looping logic. With these three structures, any required logic can be expressed.

### 1. Найдите в тексте английские эквиваленты следующих словосочетаний:

Совокупность закодированных команд; суть компьютерного программирования; кодирование посредством алгоритма; формулы, уравнения, вычисления; обработать особым образом; перечень команд; необходимая последовательность; защищать от ошибок; составлять план логической последовательности; общепринятая методика; логическая последовательность выполнения программы; построение блок-схемы; наглядное представление; заранее заданные символы; шаблон; псевдопрограмма; без издержек; выделять принцип нисходящей обработки; расходовать меньше времени; логическая схема выполнения операций в цикле; необходимая последовательность операций.

### 2. Напишите предложения в Present Perfect или Past Perfect, используя глаголы в скобках. Переведите предложения на русский язык.

1. He (read) several books by Agatha Christie this summer.
2. I (to watch) an interesting film on TV this week.
3. My father (to buy) three theatre tickets today.
4. We (do) this work by 6 o'clock yesterday.
5. My friend (come) before I called him.

### 3. Complete the sentences using the verbs in brackets in Past Perfect

Model 1: *Most of my friends were no longer there.*

*They had left (leave).*

Model 2: *Mr And Mrs Davis were in an airplane.*

*They were very nervous as the plane took off because they had never flown before (fly).*

1. My best friend, Kevin, was no longer there. He ... (go) away.
2. The local cinema was no longer open. It ... (close) down.
3. Mr Johnson was no longer alive. He ... (die).

4. I didn't recognize Mrs Johnson. She ... (change) a lot.
5. Bill no longer had his car. He ... (sell) it.
6. The woman was a complete stranger to me. I ... (see) before.
7. Margaret was late for work. Her boss was very surprised. She ... (be/late).
8. Jane played tennis yesterday, at least she tried to play tennis. She wasn't very good at it because she (play) ....
9. It was Keith's first driving lesson. He was very nervous and didn't know what to do. He ... (drive).
10. From downstairs came the sound of a radio playing a song I (not hear) before.

#### 4. You have to make sentences using the words in brackets.

*Model: I wasn't hungry. (I/just/have/lunch.)*

*I had just had lunch.*

1. Tom wasn't at home when I arrived, (he/just/go out.)
2. We arrived at the cinema late, (the film/already/begin.)
3. They weren't eating when I went to see them, (they/just/finish/their dinner.)
4. I invited Ann to dinner last night but she couldn't come, (she/already/arrange/to do something else.)
5. I was very pleased to see Nora again after such a long time. (I/not/see/her for five years.)
6. Last year our profits were higher than (they, ever, be).
7. When they entered the conference hall (the discussion, already, start).
8. I couldn't recollect that (I, ever, promise, to help him).
9. She apologized that (she, not read, my report, yet).
10. He knew much about the city, (he, live, in London, for a long time).

### Практическое занятие № 20.

**Тема:** Программирование. Past Perfect.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Ответить на вопросы, упр.2-4.

#### Topical vocabulary

equation — уравнение, приравнивание

list of instructions — перечень команд

guard ['ga:d] — защищать; предохранять; завершать; заканчивать

appropriate sequence — необходимая (требуемая) последовательность

program logic — логическая последовательность выполнения программы

flowchart — блок-схема; составлять блок-схему

flowcharting — построение блок-схемы

pictorial representation — наглядное представление

predefined symbols — заранее заданные символы

specifics — специальные черты; характерные особенности

emplate — шаблон; маска; образец; эталон

pseudocode ['psju:doukoud] — псевдокод; псевдопрограмма

burden — издержки; затраты

programming rules — правила программирования

consume — потреблять; расходовать

emphasize — выделять; подчеркивать

top-down approach — принцип нисходящей разработки

looping logic — логическая схема выполнения (операций) в цикле

### COMPUTER PROGRAMMING

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The phase in which the system's computer programs are written is called the development phase. The programs are lists of instructions that will be followed by the control unit of the central processing unit (CPU). The instructions of the program must be complete and in the appropriate sequence, or else the wrong answers will result. To guard against these errors in logic and to document the program's logical approach, logic plans should be developed.

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The second technique for planning program logic is called pseudocode. Pseudocode is an imitation of actual program instructions. It allows a program-like structure without the burden of programming rules to follow. Pseudocode has three basic structures: sequence, decision, and looping logic. With these three structures, any required logic can be expressed.

### **1. Просмотрите текст еще раз и ответьте на вопросы, используя информацию текста.**

1. What is programming? 2. What is the essence of programming? 3. What should be done with the problem before processing by the computer? 4. What is a program? 5. What are instructions? 6. What are the main techniques for planning the program logic? 7. What is a flowchart? 8. What is a template and what is it used for? 9. What do you understand by "pseudocode"? 10. What are the basic structures of pseudocode?

### **2. Подберите из предложенных ниже русских словосочетаний значения следующих терминов на английском языке:**

Program: access program; application program; archived program; binary program; common program; compatible / in compatible program; control / management program; database program; debugging program; educational / teaching / training program; free program; general-purpose program; high-performance program; off-line program; on-line program; operating (-system) program; processing program; protected-mode program; remote program; running program; self-loading program; simulation program; support program; utility program; virus- detection program; watch-dog program.

Программа в двоичном коде; прикладная программа; (не) совместимая программа; бесплатная программа; программа отладки; сторожевая программа; дистанционная программа; программа моделирования; сервисная программа; вспомогательная программа; программа для доступа (к данным); заархивированная программа; программа, работающая с базой данных; обучающая программа; программа, выполняемая с большой скоростью; универсальная программа; программа, выполняемая в защищенном режиме; программа обработки данных; программа операционной системы (системная программа); выполняемая программа; сетевая /несетевая программа; самозагружающаяся программа; часто используемая (распространенная) программа; программа управления; программа обнаружения вирусов.

### **3. Combine the following sentences using the Past Perfect, using the conjunctions when, after, before, where necessary.**

- Model 1: She took some pictures of London. She showed us the pictures.  
She showed us the pictures she had taken in London*
- Model 2: Everybody went to bed. I came home.*

*When I came home, everybody had gone to bed.*

1. He wrote a letter then he went to post it.
2. Ann prepared a beautiful meal for her guests. They ... all enjoyed it.
3. He left his passport behind. He couldn't find the passport.
4. They saw a play at the National Theatre. Then they discussed it.
5. He failed the examination twice. He gave up hope of passing it.
6. I came to the office. The manager signed all the documents.
7. The football match began. We reached the stadium.
8. The weather kept dry for a week. We came to the seaside.
9. They traveled four hundred miles. They reached the end of their journey.
10. The children did their homework. Their mother allows them to watch TV.

#### **4. Complete the sentences using the Past Perfect.**

1. We told her that he ... (to buy a TV-set).
2. The man at the station said that the train ... (to leave already).
3. Mary told me that she ... (not to get a letter from her son yet). She said she ... (not to hear from him for some weeks).
4. He understood that he ... (to get off at the wrong station).
5. He said that his parents ... (always to live in the country).
6. I didn't know that she ... (to change her address).
7. He didn't remember how it all ... (to happen).
8. We were sure that she ... (to tell the truth).
9. I saw that the child ... (to catch a cold).
10. She hoped that I ... (to pay for the tickets already).

### **Практическое занятие № 21.**

**Тема:** Программирование. Past Perfect.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить пересказ текста, упр.3.

#### **Topical vocabulary**

equation — уравнение, приравнивание

list of instructions — перечень команд

guard ['ga:d] — защищать; предохранять; завершать; заканчивать

appropriate sequence — необходимая (требуемая) последовательность

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flowchart — блок-схема; составлять блок-схему

flowcharting — построение блок-схемы

pictorial representation — наглядное представление

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specifics — специальные черты; характерные особенности

emplate — шаблон; маска; образец; эталон

pseudocode ['psju:doukoud] — псевдокод; псевдопрограмма

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emphasize — выделять; подчеркивать

top-down approach — принцип нисходящей разработки

looping logic — логическая схема выполнения (операций) в цикле

## COMPUTER PROGRAMMING

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### 1. Просмотрите текст еще раз и ответьте на вопросы, используя информацию текста.

1. What is programming? 2. What is the essence of programming? 3. What should be done with the problem before processing by the computer. What is a program? 5? What are instructions? 6. What are the main techniques for planning the program logic? 7. What is a flowchart? 8. What is a template and what is it used for? 9. What do you understand by "pseudocode"? 10. What are the basic structures of pseudocode?

### 2. Подберите из предложенных ниже русских словосочетаний значения следующих терминов на английском языке:

Program: access program; application program; archived program; binary program; common program; compatible / in compatible program; control / management program; database program; debugging program; educational / teaching / training program; free program; general-purpose program; high-performance program; off-line program; on-line program; operating (-system) program; processing program; protected-mode program; remote program; running program; self-loading program, simulation program; support program; utility program; virus- detection program; watch-dog program.

Программа в двоичном коде; прикладная программа; (не) совместимая программа; бесплатная программа; программа отладки; сторожевая программа; дистанционная программа; программа моделирования; сервисная программа; вспомогательная программа; программа для доступа (к данным); заархивированная программа; программа, работающая с базой данных; обучающая программа; программа, выполняемая с большой скоростью; универсальная программа; программа, выполняемая в защищенном режиме; программа обработки данных; программа операционной системы (системная программа); выполняемая программа; сетевая /несетевая программа; самозагружающаяся программа; часто используемая (распространенная) программа; программа управления; программа обнаружения вирусов.

### 3. Раскройте скобки, употребляя глаголы в Past Simple или Past Perfect.

1. Tom (to return) from the cinema at five o'clock.
2. Tom (to return) from the cinema by five o'clock.
3. I (to finish) my homework at seven o'clock.
4. I (to finish) my homework by seven o'clock.

5. He (to think) that he (to lose) the money.
6. Ann (to tell) me that she (to see) an interesting film.
7. When I (to come) home, mother already (to cook) dinner.
8. When father (to return) from work, we already (to do) our homework.
9. When the teacher (to enter) the classroom, the pupils already (to open) their books.

### Практическая занятие № 22.

**Тема:** Контрольная работа.

**Цель:** Контроль лексических и грамматических навыков, словарного запаса обучающихся.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

#### Вариант I

##### 1. Вставьте глаголы в Present Simple:

1. We \_\_\_\_\_ (not/speak) French.
2. A lot of teenagers \_\_\_\_\_ (play) computer games.
3. \_\_\_\_\_ (you/study) English every day?
4. He \_\_\_\_\_ (visit) his grandmother twice a year.

##### 2. Вставьте глаголы в Past Simple:

1. Mary \_\_\_\_\_ (go) to school yesterday.
2. \_\_\_\_\_ (you/go) to the cinema on Sunday?
3. He \_\_\_\_\_ (not/pass) his exam last week.
4. She \_\_\_\_\_ (see) him two days ago.

##### 3. Вставьте глаголы в Present, Past или Future Simple:

1. He \_\_\_\_\_ (to be) a student twenty years ago.
2. She \_\_\_\_\_ (call) you in a few minutes.
3. \_\_\_\_\_ (you/buy) milk yesterday?
4. I \_\_\_\_\_ (get up) at 7 am every morning.

##### 4. Выберите соответствующую форму глагола Future Simple или to be going to:

1. I \_\_\_\_\_ (call) you. I promise.
2. \_\_\_\_\_ (you /help) me, please?
3. I think he \_\_\_\_\_ (not/pass) his driving test.
4. I have some plans for Monday. I \_\_\_\_\_ (visit) my sister.

#### Вариант II

##### 1. Вставьте глаголы в Present Simple:

1. My father \_\_\_\_\_ (work) in a bank.
2. I \_\_\_\_\_ (watch) TV every day.
3. \_\_\_\_\_ (you/speak) English?
4. She \_\_\_\_\_ (not/go) to school on Sunday.

##### 2. Вставьте глаголы в Past Simple:

1. I \_\_\_\_\_ (do) my homework in the evening.
2. He \_\_\_\_\_ (not/write) a letter to his aunt.
3. \_\_\_\_\_ (you/go) for a walk?
4. He \_\_\_\_\_ (buy) some apples for dinner.

**3. Вставьте глаголы в Present, Past или Future Simple:**

1. He \_\_\_\_\_ (to be) in Moscow tomorrow.
2. My sister \_\_\_\_\_ (fall) ill last week.
3. British people \_\_\_\_\_ (like) drinking tea a lot.
4. Good-bye! I \_\_\_\_\_ (call) you next week.

**4. Выберите соответствующую форму глагола Future Simple или to be going to:**

1. What \_\_\_\_\_ (you/do) tomorrow evening?
2. The doctor \_\_\_\_\_ (to be) here in five minutes.
3. He won't be at home. He \_\_\_\_\_ (leave) Moscow tonight.
4. Do you think she \_\_\_\_\_ (call) us tomorrow?

**Практическая занятие № 23.**

**Тема:** Дифференцированный зачет.

**Цель:** Контроль умений и навыков практического владения английским языком.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Контрольные задания к дифференцированному зачету  
II курс**

<b>Лексический материал</b>	<b>Грамматический материал</b>
1. Программирование	3. Present Perfect Tense
2. Программное обеспечение	4. Past Perfect Tense

**Вариант I**

**1. Прочтите и переведите текст, выполните задания к тексту.**

**COMPUTER PROGRAMMING**

Programming is the process of preparing a set of coded instructions which enables the computer to solve specific problems or to perform specific functions. The essence of computer programming is the encoding of the program for the computer by means of algorithms. The thing is that any problem is expressed in mathematical terms, it contains formulae, equations and calculations. But the computer cannot manipulate formulae, equations and calculations. Any problem must be specially processed for the computer to understand it, that is — coded or programmed.

The phase in which the system's computer programs are written is called the development phase. The programs are lists of instructions that will be followed by the control unit of the central processing unit (CPU). The instructions of the program must be complete and in the appropriate sequence, or else the wrong answers will result. To guard against these errors in logic and to document the program's logical approach, logic plans should be developed.

There are two common techniques for planning the logic of a program. The first technique is flowcharting. A flowchart is a plan in the form of a graphic or pictorial representation that uses predefined symbols to illustrate the program logic. It is, therefore, a "picture" of the logical steps to be performed by the computer. Each of the predefined symbol shapes stands for a general operation. The symbol shape communicates the nature of the general operation, and the specifics are written within the symbol. A plastic or metal guide called a template is used to make drawing the symbols easier.

The second technique for planning program logic is called pseudocode. Pseudocode is an imitation of actual program instructions. It allows a program-like structure without the burden of programming rules to follow. Pseudocode has three basic structures: sequence, decision, and looping logic. With these three structures, any required logic can be expressed.

## 2. Ответьте на вопросы, используя информацию текста.

1. What is programming? 2. What is the essence of programming? 3. What should be done with the problem before processing by the computer? 4. What is a program? 5. What are instructions? 6. What are the main techniques for planning the program logic? 7. What is a flowchart? 8. What is a template and what is it used for? 9. What do you understand by "pseudocode"? 10. What are the basic structures of pseudocode?

## 3. Найдите в тексте английские эквиваленты следующих словосочетаний:

Совокупность закодированных команд; суть компьютерного программирования; кодирование посредством алгоритма; формулы, уравнения, вычисления; обработать особым образом; перечень команд; необходимая последовательность; защищать от ошибок; составлять план логической последовательности; общепринятая методика; логическая последовательность выполнения программы; построение блок-схемы; наглядное представление; заранее заданные символы; шаблон; псевдопрограмма; без издержек; выделять принцип нисходящей обработки; расходовать меньше времени; логическая схема выполнения операций в цикле; необходимая последовательность операций.

## 4. Подберите из предложенных ниже русских словосочетаний значения следующих терминов на английском языке:

Program: access program; application program; archived program; binary program; common program; compatible / in compatible program; control / management program; database program; debugging program; educational / teaching / training program; free program; general-purpose program; high-performance program; off-line program; on-line program; operating (-system) program; processing program; protected-mode program; remote program; running program; self-loading program, simulation program; support program; utility program; virus- detection program; watch-dog program.

Программа в двоичном коде; прикладная программа; (не) совместимая программа; бесплатная программа; программа отладки; сторожевая программа; дистанционная программа; программа моделирования; сервисная программа; вспомогательная программа; программа для доступа (к данным); заархивированная программа; программа, работающая с базой данных; обучающая программа; программа, выполняемая с большой скоростью; универсальная программа; программа, выполняемая в защищенном режиме; программа обработки данных; программа операционной системы (системная программа); выполняемая программа; сетевая / несетевая программа; самозагружающаяся программа; часто используемая (распространенная) программа; программа управления; программа обнаружения вирусов.

## 5. Поставьте предложения в Present Perfect:

1. She.....(just break) a vase.
2. We.....(already clean) the room.
3. I.....(just make) the bed.
4. He.....(phone) his friend.
5. It.....(start) raining.
6. A little girl.....(cut) her finger.

## 6. Что обозначает -'s— (has или is)? Напишите предложения без сокращений:

1. She's gone to the shop.
2. She's very angry.
3. I think Emily's right.
4. He's lived here for ten years.
5. He's always hungry.
6. What's happened?



## Вариант II

### 1. Прочтите и переведите текст, выполните задания к тексту.

#### HARDWARE, SOFTWARE, AND FIRMWARE

The units that are visible in any computer are the physical components of a data processing system, or *hardware*. Thus, the input, storage, processing and control devices are hardware. Not visible is the *software* — the set of computer programs, procedures, and associated documentation that make possible the effective operation of the computer system. Software programs are of two types: systems software and applications software.

*Systems software* are the programs designed to control the operation of a computer system. They do not solve specific problems. They are written to assist people in the use of the computer system by performing tasks, such as controlling all of the operations required, to move data into and out of a computer and all of the steps in executing an application program. The person who prepares systems software is referred to as a systems programmer. Systems programmers are highly trained specialists and important members of the architectural team.

*Applications software* are the programs written to solve specific problems (applications), such as payroll, inventory control, and investment analysis. The word program usually refers to an application program, and the word programmer is usually a person who prepares applications software.

Often programs, particularly systems software, are stored in an area of memory not used for applications software. These protected programs are stored in an area of memory called read-only memory (ROM), which can be read from but not written on.

*Firmware* is a term that is commonly used to describe certain programs that are stored in ROM. Firmware often refers to a sequence of instructions (software) that is substituted for hardware. For example, in an instance where cost is more important than performance, the computer system architect might decide not to use special electronic circuits (hardware) to multiply two numbers, but instead write instructions (software) to cause the machine to accomplish the same function by repeated use of circuits already designed to perform addition.

### 2. Ответьте на вопросы, используя информацию текста.

1. What is hardware?
2. Give the definition of software.
3. What are the types of software?
4. What are systems software?
5. What kind of tasks do systems software perform?
6. Who prepares systems software?
7. What are applications software?
8. What problems do applications software solve?
9. What is firmware?
10. How can a computer system architect use firmware?

### 3. Найдите в тексте английские эквиваленты следующих словосочетаний:

Видимые устройства; система обработки данных; аппаратное обеспечение; набор компьютерных программ; соответствующая документация; эффективная работа; системное программное обеспечение; прикладное программное обеспечение; системный программист; платежная ведомость; переучет; анализ инвестиций; прикладная программа; работающий только в режиме чтения; постоянное запоминающее устройство; последовательность команд; в случае; производительность; электронная цепь; умножать числа; заставить машину выполнять ту же функцию; выполнять сложение.

### 4. Раскройте скобки, поставив глаголы в Past Perfect:

Образец: *Mr And Mrs Davis were in an airplane.*

*They were very nervous as the plane took off because they had never flown before (fly).*

1. My best friend, Kevin, was no longer there. He ... (go) away.
2. The local cinema was no longer open. It ... (close) down.
3. Mr Johnson was no longer alive. He ... (die).

4. I didn't recognize Mrs Johnson. She ... (change) a lot.
5. Bill no longer had his car. He ... (sell) it.
6. The woman was a complete stranger to me. I ... (see) before.

**5. Раскройте скобки, употребляя глаголы в Past Simple или Past Perfect:**

1. Tom (to return) from the cinema at five o'clock.
2. Tom (to return) from the cinema by five o'clock.
3. I (to finish) my homework at seven o'clock.
4. I (to finish) my homework by seven o'clock.
5. He (to think) that he (to lose) the money.
6. Ann (to tell) me that she (to see) an interesting film.

## 3 КУРС 5 СЕМЕСТР ХРАНЕНИЕ ИНФОРМАЦИИ

### Практическое занятие № 1.

**Тема:** Запоминающее устройство. Страдательный залог Simple.

**Цель:** Введение и закрепление лексического и грамматического материала.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести слова, текст, упр.1-5.

#### Topical vocabulary

primary / secondary storage — первичное / вторичное запоминающее устройство

main storage — основная память; оперативное запоминающее устройство

internal storage — внутреннее ЗУ

sequence — последовательность; порядок следования

intermediate results — промежуточные результаты

ongoing process — продолжающий (ся), постоянный процесс

similarity — сходство; подобие

to retain — сохранять; удерживать

to locate — размещать(ся); располагать(ся)

value — значение, величина; значимость, ценность; оценка

binary digit — двоичная цифра; двоичный знак

adjacent — смежный; соседний; примыкающий

strings of characters — последовательность символов

consecutive — последовательный; смежный; соседний

### STORAGE UNITS

Computer system architecture is organized around the primary storage unit because all data and instructions used by the computer system must pass through primary storage. Our discussion of computer system units will begin with the functions of the primary and secondary storage units. This leads to the examination of the central processing unit and from there to the consideration of the input and output units. Therefore, the sequence in which we'll describe the functional units of a digital computer is: 1) storage units, primary and secondary; 2) central processing unit; 3) input and output units.

As you know, there are primary and secondary storage units. Both contain data and the instructions for processing the data. Data as well as instructions must flow into and out of primary storage.

*Primary storage* is also called main storage or internal storage. The specific functions of internal storage are to hold (store): 1) all data to be processed; 2) intermediate results of processing; 3) final results of processing; 4) all the instructions required for ongoing process. Another name for primary storage is memory, because of its similarity to a function of the human brain. However, computer storage differs from human memory in important respects. Computer memory must be able to retain very large numbers of symbol combinations, without forgetting or changing any details. It must be able to locate all its contents quickly upon demand. The combinations of characters, that is, the letters, numbers, and special symbols by which we usually communicate, are coded. The codes used by computer designers are based upon a number system that has only two possible values, 0 and 1. A number system with only two digits, 0 and 1, is called a *binary number system*. Each binary digit is called a bit, from binary digit. As the information capacity of a single bit is limited to 2 alternatives, codes used by computer designers are based upon combinations of bits. These combinations are called *binary codes*. The most common binary codes are 8-bit codes because an 8-bit code provides for 2<sup>8</sup>, or 256 unique combinations of 1's and 0's, and this is more than adequate to represent all of the characters by which we communicate.

Data in the form of coded characters are stored in adjacent storage locations in main memory in two principal ways : 1) as "strings" of characters — in bytes; and 2) within fixed-size "boxes" — in words. A fixed number of consecutive bits that represent a character is called a *byte*. The most common byte size is 8-bit byte. *Words* are usually 1 or more bytes in length.

*Secondary storage.* Primary storage is expensive because each bit is represented by a high-speed device, such as a semiconductor. A million bytes (that is, 8 million bits) is a large amount of primary storage. Often it is necessary to store many millions, sometimes billions, of bytes of data. Therefore slower, less expensive storage units are available for computer systems. These units are called *secondary storage*. Data are stored in them in the same binary codes as in main storage and are made available to main storage as needed.

**1. Найдите в тексте английские эквиваленты следующих словосочетаний:**

Функциональный блок; цифровой компьютер; устройство ввода; устройство управления; арифметико-логическое устройство; центральный процессор; структура компьютерной системы; первичное запоминающее устройство; вторичное ЗУ; рассмотрение; поэтому последовательность; оперативное ЗУ; внутренняя память; промежуточные результаты; подобие функции человеческого мозга; размещать содержимое по требованию; система счисления; двоичная система счисления; возможные величины; объем информации; двоичный код; смежные ячейки памяти; последовательность символов; быстродействующее устройство; полупроводник; доступный.

**2. Вспомните значение новых слов и попытайтесь перевести словосочетания, употребляемые с этими словами.**

**Storage:** available storage; buffer storage; computer storage; data storage; magnetic disk storage; magnetic tape storage; input storage; intermediate storage; internal storage; laser storage; main storage; primary storage; secondary storage; sequential- access storage; variable storage; virtual storage.

**Value:** absolute value; acceptable value; additional value; binary value; byte value; character value; constant value; correct value; data value; digit value; discrete values; invalid value; negative value; numerical value; output value; valid value.

**Digit:** binary digit; binary-coded digit; check digit; information digit; input digit; nonsignificant digit; significant digit; digit-by-digit.

**Sequence:** out of sequence; alphabetic sequence; arithmetic sequence; binary sequence; character sequence; code sequence; instruction sequence; data sequence; digital sequence; historical sequence; increasing sequence; program sequence; string sequence.

**3. Раскройте скобки, употребляя глаголы в Present Simple Passive. (USUALLY)**

1. The postbox (to empty) every day.
2. The stamps (to postmark) at the post office.
3. The letters (to sort) into the different towns.
4. The mail (to load) into the train.
5. The mailbags (to unload) after their journey.
6. The bags (to take) to the post office.
7. The letters (to sort) into the different streets.
8. The letters (to deliver).

**4. Раскройте скобки, употребляя глаголы в Past Simple Passive. (YESTERDAY)**

1. The postbox (to empty) yesterday.
2. The stamps (to postmark) at the post office.
3. The letters (to sort) into the different towns.
4. The mail (to load) into the train.
5. The mailbags (to unload) after their journey.
6. The bags (to take) to the post office.
7. The letters (to sort) into the different streets.
8. The letters (to deliver).

## 5. Раскройте скобки, употребляя глаголы в Future Simple Passive. (TOMORROW)

1. The postbox (to empty) tomorrow.
2. The stamps (to postmark) at the post office.
3. The letters (to sort) into the different towns.
4. The mail (to load) into the train.
5. The mailbags (to unload) after their journey.
6. The bags (to take) to the postoffice.
7. The letters (to sort) into the different streets.
8. The letters (to deliver).

### Практическое занятие № 2.

**Тема:** Запоминающее устройство. Страдательный залог Simple.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Ответить на вопросы, упр.2.

### Topical vocabulary

primary / secondary storage — первичное / вторичное запоминающее устройство

main storage — основная память; оперативное запоминающее устройство

internal storage — внутреннее ЗУ

sequence — последовательность; порядок следования

intermediate results — промежуточные результаты

ongoing process — продолжающий (ся), постоянный процесс

similarity — сходство; подобие

to retain — сохранять; удерживать

to locate — размещать(ся); располагать(ся)

value — значение, величина; значимость, ценность; оценка

binary digit — двоичная цифра; двоичный знак

adjacent — смежный; соседний; примыкающий

strings of characters — последовательность символов

consecutive — последовательный; смежный; соседний

## STORAGE UNITS

Computer system architecture is organized around the primary storage unit because all data and instructions used by the computer system must pass through primary storage. Our discussion of computer system units will begin with the functions of the primary and secondary storage units. This leads to the examination of the central processing unit and from there to the consideration of the input and output units. Therefore, the sequence in which we'll describe the functional units of a digital computer is: 1) storage units, primary and secondary; 2) central processing unit; 3) input and output units.

As you know, there are primary and secondary storage units. Both contain data and the instructions for processing the data. Data as well as instructions must flow into and out of primary storage.

*Primary storage* is also called main storage or internal storage. The specific functions of internal storage are to hold (store): 1) all data to be processed; 2) intermediate results of processing; 3) final results of processing; 4) all the instructions required for ongoing process. Another name for primary storage is memory, because of its similarity to a function of the human brain. However, computer storage differs from human memory in important respects. Computer memory must be able to retain very large numbers of symbol combinations, without forgetting or changing any details. It must be able to locate all its contents quickly upon demand. The combinations of characters, that is, the letters, numbers, and special symbols by which we usually communicate, are coded. The codes used by computer designers are based upon a number system that has only two possible values, 0 and 1. A number system with only two digits, 0 and 1, is called a *binary number system*. Each binary digit is called a bit, from binary digit. As the information

capacity of a single bit is limited to 2 alternatives, codes used by computer designers are based upon combinations of bits. These combinations are called *binary codes*. The most common binary codes are 8-bit codes because an 8-bit code provides for  $2^8$ , or 256 unique combinations of 1's and 0's, and this is more than adequate to represent all of the characters by which we communicate.

Data in the form of coded characters are stored in adjacent storage locations in main memory in two principal ways : 1) as "strings" of characters — in bytes; and 2) within fixed-size "boxes" — in words. A fixed number of consecutive bits that represent a character is called *a byte*. The most common byte size is 8-bit byte. *Words* are usually 1 or more bytes in length.

*Secondary storage*. Primary storage is expensive because each bit is represented by a high-speed device, such as a semiconductor. A million bytes (that is, 8 million bits) is a large amount of primary storage. Often it is necessary to store many millions, sometimes billions, of bytes of data. Therefore slower, less expensive storage units are available for computer systems. These units are called *secondary storage*. Data are stored in them in the same binary codes as in main storage and are made available to main storage as needed.

### 1. Ответьте на вопросы, используя информацию текста.

1. What are the functional units of a digital computer? 2. What units make up the central processing unit? 3. How is computer system organized? 4. What are the two main types of storage units? 5. What do they contain? 6. What is the function of a primary storage? 7. Why is primary storage often called memory? 8. In what respect does computer memory differ from human memory? 9. What are codes based on? 10. What is secondary storage and what is it used for?

### 2. Раскройте скобки, употребляя глаголы в Present, Past или Future Simple Passive.

1. My question (to answer) yesterday.
2. Hockey (to play) in winter.
3. Mushrooms (to gather) in autumn.
4. Many houses (to burn) during the Great Fire of London.
5. His new book (to finish) next year.
6. Flowers (to sell) in shops and in the streets.
7. St. Petersburg (to found) in 1703.
8. Bread (to eat) every day.
9. The letter (to receive) yesterday.
10. Nick (to send) to Moscow next week.
11. I (to ask) at the lesson yesterday.
12. I (to give) a very interesting book at the library last Friday.
13. Many houses (to build) in our town every year.
14. This work (to do) tomorrow.
15. This text (to translate) at the last lesson.

### Практическое занятие № 3.

**Тема:** Запоминающее устройство. Страдательный залог Simple.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить пересказ текста, упр.2-4.

#### Topical vocabulary

primary / secondary storage — первичное / вторичное запоминающее устройство

main storage — основная память; оперативное запоминающее устройство

internal storage — внутреннее ЗУ

sequence — последовательность; порядок следования

intermediate results — промежуточные результаты  
ongoing process — продолжающий (ся), постоянный процесс  
similarity — сходство; подобие  
to retain — сохранять; удерживать  
to locate — размещать(ся); располагать(ся)  
value — значение, величина; значимость, ценность; оценка  
binary digit — двоичная цифра; двоичный знак  
adjacent — смежный; соседний; примыкающий  
strings of characters — последовательность символов  
consecutive — последовательный; смежный; соседний

## STORAGE UNITS

Computer system architecture is organized around the primary storage unit because all data and instructions used by the computer system must pass through primary storage. Our discussion of computer system units will begin with the functions of the primary and secondary storage units. This leads to the examination of the central processing unit and from there to the consideration of the input and output units. Therefore, the sequence in which we'll describe the functional units of a digital computer is: 1) storage units, primary and secondary; 2) central processing unit; 3) input and output units.

As you know, there are primary and secondary storage units. Both contain data and the instructions for processing the data. Data as well as instructions must flow into and out of primary storage.

*Primary storage* is also called main storage or internal storage. The specific functions of internal storage are to hold (store): 1) all data to be processed; 2) intermediate results of processing; 3) final results of processing; 4) all the instructions required for ongoing process. Another name for primary storage is memory, because of its similarity to a function of the human brain. However, computer storage differs from human memory in important respects. Computer memory must be able to retain very large numbers of symbol combinations, without forgetting or changing any details. It must be able to locate all its contents quickly upon demand. The combinations of characters, that is, the letters, numbers, and special symbols by which we usually communicate, are coded. The codes used by computer designers are based upon a number system that has only two possible values, 0 and 1. A number system with only two digits, 0 and 1, is called a *binary number system*. Each binary digit is called a bit, from binary digit. As the information capacity of a single bit is limited to 2 alternatives, codes used by computer designers are based upon combinations of bits. These combinations are called *binary codes*. The most common binary codes are 8-bit codes because an 8-bit code provides for  $2^8$ , or 256 unique combinations of 1's and 0's, and this is more than adequate to represent all of the characters by which we communicate.

Data in the form of coded characters are stored in adjacent storage locations in main memory in two principal ways : 1) as “strings” of characters — in bytes; and 2) within fixed-size “boxes” — in words. A fixed number of consecutive bits that represent a character is called a *byte*. The most common byte size is 8-bit byte. *Words* are usually 1 or more bytes in length.

*Secondary storage*. Primary storage is expensive because each bit is represented by a high-speed device, such as a semiconductor. A million bytes (that is, 8 million bits) is a large amount of primary storage. Often it is necessary to store many millions, sometimes billions, of bytes of data. Therefore slower, less expensive storage units are available for computer systems. These units are called *secondary storage*. Data are stored in them in the same binary codes as in main storage and are made available to main storage as needed.

### 1. Ответьте на вопросы, используя информацию текста.

1. What are the functional units of a digital computer?
2. What units make up the central processing unit?
3. How is computer system organized?
4. What are the two main types of storage units?
5. What do they contain?
6. What is the function of a primary storage?
7. Why is primary storage often called memory?
8. In what respect does computer memory differ from human memory?
9. What are codes based on?
10. What is secondary storage and what is it used for?

## 2. Раскройте скобки, выбирая требуемую форму глагола.

1. At the station they will (meet, be met) by a man from the travel bureau.
2. She will (meet, be met) them in the hall upstairs.
3. The porter will (bring, be brought) your luggage to your room.
4. Your luggage will (bring, be brought) up in the lift.
5. You may (leave, be left) your hat and coat in the cloakroom downstairs.
6. They can (leave, be left) the key with the clerk downstairs.
7. From the station they will (take, be taken) straight to the hotel.
8. Tomorrow he will (take, be taken) them to the Russian Museum.

## 3. Передайте следующие предложения в Passive Voice, обращая внимание на место предлога.

**E.g. We often speak of her. — She is often spoken of.**

1. The senior students laughed at the freshman.
2. The group spoke to the headmistress yesterday.
3. Young mothers looked after their babies with great care.
4. Nobody lived in that old house.
5. They sent for Jim and told him to prepare a report on that subject.
6. We thought about our friend all the time.
7. The doctor will operate on him in a week.
8. The teacher sent for the pupil's parents.
9. They looked for the newspaper everywhere.
10. Nobody slept in the bed.
11. The neighbour asked for the telegram.
12. Everybody listened to the lecturer with great attention.

## 4. Раскройте скобки, употребляя глаголы в Active Voice или Passive Voice.

1. Nobody (to see) him yesterday.
2. The telegram (to receive) tomorrow.
3. He (to give) me this book next week.
4. The answer to this question can (to find) in the encyclopedia.
5. We (to show) the historical monuments of the capital to the delegation tomorrow.
6. You can (to find) interesting information about the life in the USA in this book.
7. Budapest (to divide) by the Danube into two parts: Buda and Pest.
8. Yuri Dolgoruki (to found) Moscow in 1147.
9. Moscow University (to found) by Lomonosov.
10. We (to call) Zhukovski the father of Russian aviation.

### Практическое занятие № 4.

**Тема:** Устройства хранения информации. Страдательный залог Continuous

**Цель:** Введение и закрепление лексического и грамматического материала.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести слова, текст, упр. 1-4.

### Topical vocabulary

medium — носитель; среда

capacity — емкость; объем (памяти); пропускная способность

media capacity — емкость носителя

data access time — время доступа к данным

per bit — на единицу информации



to transfer — передавать(ся); переносить(ся); пересылаться)  
archival storage — архивное ЗУ; архивная память  
to depend — зависеть от; полагаться, рассчитывать на  
to rotate — вращать(ся); чередовать(ся); сменять(ся)  
reason — причина; основание; довод; обосновывать; делать вывод  
solid-state device — твердотельный прибор  
magnetic core — магнитный сердечник  
bipolar semiconductor — биполярный полупроводник  
metal-oxide semiconductor (MOS) — структура металл-оксид-полупроводник  
randomly — произвольно  
random-access memory (RAM) — оперативное запоминающее устройство (ОЗУ)  
sound recording — звукозапись  
to arrange — размещать; располагать; устанавливать; монтировать  
tape device — ЗУ на магнитной ленте  
to range — классифицировать; располагать в порядке; лежать в диапазоне  
magnetic disc storage — ЗУ на магнитном диске  
moving-head device — устройство с двигающейся головкой  
predominant — преобладающий; доминирующий  
flexible — гибкий; настраиваемый; изменяемый  
floppy (disk) — гибкий диск(ета); ЗУ на гибком диске  
to meet the demands — удовлетворять потребности

## STORAGE DEVICES

Storage media are classified as primary storage or secondary storage on the basis of combinations of cost, capacity, and access time. The *cost* of storage devices is expressed as the cost per bit of data stored. The time required for the computer to locate and transfer data to and from a storage medium is called the *access time* for that medium. *Capacities* range from a few hundred bytes of primary storage for very small computers to many billions of bytes of archival storage for very large computer systems.

Memories may be classified as *electronic* or *electromechanical*. Electronic memories have no moving mechanical parts, and data can be transferred into and out of them at very high speeds. Electromechanical memories depend upon moving mechanical parts for their operation, such as mechanisms for rotating magnetic tapes and disks. Their data access time is longer than is that of electronic memories; however they cost less per bit stored and have larger capacities for data storage. For these reasons most computer systems use electronic memory for primary storage and electromechanical memory for secondary storage.

*Primary storage* has the least capacity and is the most expensive; however, it has the fastest access time. The principal primary storage circuit elements are solid-state devices: magnetic cores and semiconductors. For many years magnetic cores were the principal elements used in digital computers for primary storage. The two principal types of semiconductors used for memory are bipolar and metal-oxide semiconductors (MOS). The former is faster, the latter is more commonly used at present. Because data can be accessed randomly, semiconductor memories are referred to as *random-access memory*, or RAM.

There is a wide range of *secondary storage devices*. Typical hardware devices are rotating electromechanical devices. Magnetic *tapes, disks, and drums* are the secondary storage hardware most often used in computer systems for sequential processing. Magnetic tape, which was invented by the Germans during World War II for sound recording, is the oldest secondary storage medium in common use. Data are recorded in the form of small magnetized “dots” that can be arranged to represent coded patterns of bits.

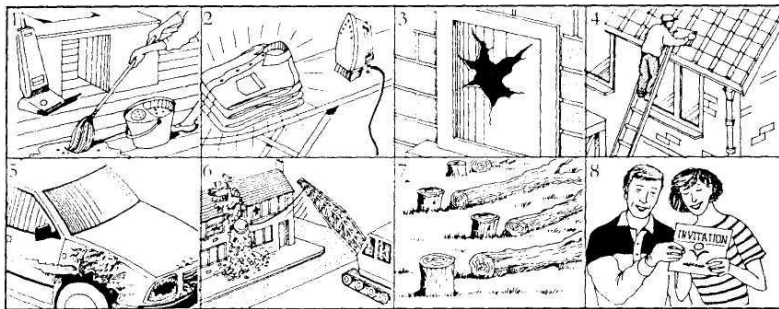
Tape devices range from large-capacity, high-data-rate units used with large data processing systems to *cassettes* and *cartridges* used with small systems. Magnetic disk storage, introduced in the early 1960s, has replaced magnetic tape as the main method of secondary storage. As contrasted with magnetic tapes, magnetic discs can perform both sequential and random processing. They are classified as moving-head, fixed-head, or combination moving-head and fixed-head devices. Magnetic discs are the predominant

secondary storage media. They include flexible, or floppy discs, called diskettes. The “floppies” were introduced by IBM in 1972 and are still a popular storage medium to meet the demands of the microcomputer market.

**1. Найдите в тексте английские эквиваленты следующих словосочетаний:**

Запоминающие устройства; носители памяти; первичные ЗУ; вторичные ЗУ; время доступа; стоимость ЗУ; диапазон емкости памяти; архивная память; движущиеся механические части; вращающиеся магнитные ленты и диски; по этим причинам; твердотельные устройства; магнитные сердечники; полупроводники; оперативное ЗУ; аппаратное обеспечение вторичной памяти; звукозапись; намагниченные точки; представлять зашифрованную комбинацию единиц информации; в отличие от магнитных лент; последовательная и произвольная обработка; устройства с движущейся и фиксированной головкой; удовлетворять потребности; гибкий диск.

**Present and Past Continuous Passive**



**2. Опишите то, что вы видите на картинках № 1, 4, 6. Используйте the present continuous (is/are being ...)** *Образец: The bridge is being painted at the moment.*

- 1. (the room / clean) .....
- 2. (the roof / repair) .....
- 4. (the houses / knock down) .....

**3. Измените предложения и поставьте в форму the past continuous passive (was/were being )**

**4. Переделайте предложения из действительного в страдательный залог:**

*Someone is cleaning the windows.  
The windows are being cleaned by someone.*

- 1. Somebody is using a computer right now/
- 2. They are building a new ring road round the city.
- 3. Grandfather is telling the children a funny story.
- 4. I think, somebody is following us.

**Практическое занятие № 5.**

**Тема:** Устройства хранения информации. Страдательный залог Continuous.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Ответить на вопросы, упр.2-3.

**Topical vocabulary**

medium — носитель; среда

capacity — емкость; объем (памяти); пропускная способность

media capacity — емкость носителя

data access time — время доступа к данным  
per bit — на единицу информации  
to transfer — передавать(ся); переносить(ся); пересылаться)  
archival storage — архивное ЗУ; архивная память  
to depend — зависеть от; полагаться, рассчитывать на  
to rotate — вращать(ся); чередовать(ся); сменять(ся)  
reason — причина; основание; довод; обосновывать; делать вывод  
solid-state device — твердотельный прибор  
magnetic core — магнитный сердечник  
bipolar semiconductor — биполярный полупроводник  
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to arrange — размещать; располагать; устанавливать; монтировать  
tape device — ЗУ на магнитной ленте  
to range — классифицировать; располагать в порядке; лежать в диапазоне  
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moving-head device — устройство сдвигающейся головкой  
predominant — преобладающий; доминирующий  
flexible — гибкий; настраиваемый; изменяемый  
floppy (disk) — гибкий диск(ета); ЗУ на гибком диске  
to meet the demands — удовлетворять потребности

## STORAGE DEVICES

Storage media are classified as primary storage or secondary storage on the basis of combinations of cost, capacity, and access time. The *cost* of storage devices is expressed as the cost per bit of data stored. The time required for the computer to locate and transfer data to and from a storage medium is called the *access time* for that medium. *Capacities* range from a few hundred bytes of primary storage for very small computers to many billions of bytes of archival storage for very large computer systems.

Memories may be classified as *electronic* or *electromechanical*. Electronic memories have no moving mechanical parts, and data can be transferred into and out of them at very high speeds. Electromechanical memories depend upon moving mechanical parts for their operation, such as mechanisms for rotating magnetic tapes and disks. Their data access time is longer than is that of electronic memories; however they cost less per bit stored and have larger capacities for data storage. For these reasons most computer systems use electronic memory for primary storage and electromechanical memory for secondary storage.

*Primary storage* has the least capacity and is the most expensive; however, it has the fastest access time. The principal primary storage circuit elements are solid-state devices: magnetic cores and semiconductors. For many years magnetic cores were the principal elements used in digital computers for primary storage. The two principal types of semiconductors used for memory are bipolar and metal-oxide semiconductors (MOS). The former is faster, the latter is more commonly used at present. Because data can be accessed randomly, semiconductor memories are referred to as *random-access memory*, or RAM.

There is a wide range of *secondary storage devices*. Typical hardware devices are rotating electromechanical devices. Magnetic *tapes, disks, and drums* are the secondary storage hardware most often used in computer systems for sequential processing. Magnetic tape, which was invented by the Germans during World War II for sound recording, is the oldest secondary storage medium in common use. Data are recorded in the form of small magnetized “dots” that can be arranged to represent coded patterns of bits.

Tape devices range from large-capacity, high-data-rate units used with large data processing systems to *cassettes* and *cartridges* used with small systems. Magnetic disk storage, introduced in the early 1960s, has replaced magnetic tape as the main method of secondary storage. As contrasted with magnetic

tapes, magnetic discs can perform both sequential and random processing. They are classified as moving-head, fixed-head, or combination moving-head and fixed-head devices. Magnetic discs are the predominant secondary storage media. They include flexible, or floppy discs, called diskettes. The “floppies” were introduced by IBM in 1972 and are still a popular storage medium to meet the demands of the microcomputer market.

### 1. Ответьте на вопросы, используя информацию текста.

1. How are storage media classified? 2. How is the cost of storage devices expressed? 3. What is the access time for storage media? 4. How does the storage capacity range? 5. What are the two main types of storage devices? 6. What are electronic storage devices? 7. What are the principal primary storage circuit elements? 8. What are the main secondary storage devices? 9. What is the oldest secondary medium and when was it invented? 10. What is a floppy?

### 2. Present Continuous Passive or Present Simple Passive?

1. Papers (deliver) usually at 8 in the morning, they (look through) at the moment and you will get you soon.
2. Dresses (make) preferably of cotton in hot countries. This wonderful costume (make) specially for this performance now.
3. – What strange sounds!  
- Oh, our piano (tune).
4. – Where is your car?  
- It (fill) in the garage at the moment.
5. The witness (question) by the police-inspector now.
6. Our luggage (examine) at the customs now. Any luggage going abroad(check) usually here.
7. All the contracts (sign) by the President.
8. You can't use the fax now. It (fix).
9. Lots of people (operate on) in this clinic. And now unfortunately my uncle John (operate) on here.

### 3. Past Continuous Passive or Past Simple Passive?

1. Many towns (destroy) by the earthquake in Japan last year.
2. He (throw) out of class for cheating.
3. The pop singers arrived at the airport and (welcome) by thousands of fans. Flowers (throw) at them all the way to the exit.
4. The exposition (open) when we drove up to the picture gallery.
5. He couldn't go out as his suit shirt (clean).
6. The petrol tank (fill) last week.
7. The naughty boy (teach) a very good lesson by his friends.

## Практическое занятие № 6.

**Тема:** Контрольная работа.

**Цель:** Контроль лексических и грамматических навыков, словарного запаса обучающихся.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

### Вариант I

#### 1. Совместите термины с их определениями:

Inputting is	a serious of actions that convert data into useful information
Outputting is	a saving data or information so that they are available for initial processing
Data processing is	the process of entering data into a data processing system
Storing is	the processing of producing useful information

**2. Образуйте вопросительную и отрицательную формы от данного предложения:**

Memory consists of the main and secondary storage.

**3. Раскройте скобки и поставьте глаголы в Simple Passive (is/are/was/were):**

1. These shoes ... (make) in Italy.
2. - Why didn't you fly to Moscow?  
- All the flights ... (cancel) due to a snowstorm.
3. Foreign languages ... (teach) in every school.
4. Our car .... (wash) yesterday.

**4. Напишите предложения в Present Continuous Passive:**

1. A stage/build/in the square.
2. The walls/paint/ in the kitchen.
3. The living room/clean/ at the moment.
4. You can't use the computer. It /use/right now.

**Вариант II**

**1. Совместите термины с их определениями:**

Accuracy	Computers are able to store vast amounts of information, to organize it .
Capacity of storage	Data, once entered, can be transmitted wherever needed by communications networks.
Speed	Once data have been entered correctly into the computer component of a data processing system, the possibility of error is reduced.
Ease of communication	The speed, at which computer data processing systems can respond, should be a fraction of a second.

**2. Образуйте вопросительную и отрицательную формы от данного предложения:**

The secondary memory has slow speed.

**3. Раскройте скобки и поставьте глаголы в Simple Passive (is/are/was/were):**

1. The plants ... (water) every week.
2. My wallet ... (steal) yesterday.
3. The house ... (clean) twice a week.
4. Have you heard the news? The thief ... (arrest) by the police.

**4. Напишите предложения в Present Perfect Passive:**

1. I'm going to the party. I/invite.
2. The fax machine/invent/by Alexander Bain.
3. This house/build/by my grandfather.
4. The letter/send/to the wrong address.

**Практическое занятие № 7.**

**Тема:** Итоговое занятие.

**Цель:** Контроль умений и навыков практического владения английским языком.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

## Контрольные задания к зачету

Лексические темы	Грамматические темы
1. Запоминающее устройство.	3. Страдательный залог Continuous
2. Устройство хранения информации	4. Страдательный залог Simple

### Вариант I

#### 1. Прочтите и переведите текст, выполните задания к тексту.

#### STORAGE UNITS

Computer system architecture is organized around the primary storage unit because all data and instructions used by the computer system must pass through primary storage. Our discussion of computer system units will begin with the functions of the primary and secondary storage units. This leads to the examination of the central processing unit and from there to the consideration of the input and output units. Therefore, the sequence in which we'll describe the functional units of a digital computer is: 1) storage units, primary and secondary; 2) central processing unit; 3) input and output units.

As you know, there are primary and secondary storage units. Both contain data and the instructions for processing the data. Data as well as instructions must flow into and out of primary storage.

*Primary storage* is also called main storage or internal storage. The specific functions of internal storage are to hold (store): 1) all data to be processed; 2) intermediate results of processing; 3) final results of processing; 4) all the instructions required for ongoing process. Another name for primary storage is memory, because of its similarity to a function of the human brain. However, computer storage differs from human memory in important respects. Computer memory must be able to retain very large numbers of symbol combinations, without forgetting or changing any details. It must be able to locate all its contents quickly upon demand. The combinations of characters, that is, the letters, numbers, and special symbols by which we usually communicate, are coded. The codes used by computer designers are based upon a number system that has only two possible values, 0 and 1. A number system with only two digits, 0 and 1, is called a *binary number system*. Each binary digit is called a bit, from binary digit. As the information capacity of a single bit is limited to 2 alternatives, codes used by computer designers are based upon combinations of bits. These combinations are called *binary codes*. The most common binary codes are 8-bit codes because an 8-bit code provides for 2<sup>8</sup>, or 256 unique combinations of 1's and 0's, and this is more than adequate to represent all of the characters by which we communicate.

Data in the form of coded characters are stored in adjacent storage locations in main memory in two principal ways : 1) as "strings" of characters — in bytes; and 2) within fixed-size "boxes" — in words. A fixed number of consecutive bits that represent a character is called a *byte*. The most common byte size is 8-bit byte. *Words* are usually 1 or more bytes in length.

*Secondary storage*. Primary storage is expensive because each bit is represented by a high-speed device, such as a semiconductor. A million bytes (that is, 8 million bits) is a large amount of primary storage. Often it is necessary to store many millions, sometimes billions, of bytes of data. Therefore slower, less expensive storage units are available for computer systems. These units are called *secondary storage*. Data are stored in them in the same binary codes as in main storage and are made available to main storage as needed.

#### 2. Найдите в тексте английские эквиваленты следующих словосочетаний:

Функциональный блок; цифровой компьютер; устройство ввода; устройство управления; арифметико-логическое устройство; центральный процессор; структура компьютерной системы; первичное запоминающее устройство; вторичное ЗУ; рассмотрение; поэтому последовательность; оперативное ЗУ; внутренняя память; промежуточные результаты; подобие функции человеческого мозга; размещать содержимое по требованию; система счисления; двоичная система счисления; возможные величины; объем информации; двоичный код; смежные ячейки памяти; последовательность символов; быстродействующее устройство; полупроводник; доступный.

### 3. Ответьте на вопросы, используя информацию текста.

1. What are the functional units of a digital computer? 2. What units make up the central processing unit? 3. How is computer system organized? 4. What are the two main types of storage units? 5. What do they contain? 6. What is the function of a primary storage? 7. Why is primary storage often called memory? 8. In what respect does computer memory differ from human memory? 9. What are codes based on? 10. What is secondary storage and what is it used for?

### 4. Present Continuous Passive or Present Simple Passive?

1. Papers (deliver) usually at 8 in the morning, they (look through) at the moment and you will get you soon.
2. Dresses (make) preferably of cotton in hot countries. This wonderful costume (make) specially for this performance now.
3. – What strange sounds!  
- Oh, our piano (tune).
4. – Where is your car?  
- It (fill) in the garage at the moment.
5. The witness (question) by the police-inspector now.
6. Our luggage (examine) at the customs now. Any luggage going abroad(check) usually here.
7. All the contracts (sign) by the President.
8. You can't use the fax now. It (fix).
9. Lots of people (operate on) in this clinic. And now unfortunately my uncle John (operate) on here.

## Вариант II

### 1. Прочтите и переведите текст, выполните задания к тексту.

#### STORAGE DEVICES

Storage media are classified as primary storage or secondary storage on the basis of combinations of cost, capacity, and access time. The *cost* of storage devices is expressed as the cost per bit of data stored. The time required for the computer to locate and transfer data to and from a storage medium is called the *access time* for that medium. *Capacities* range from a few hundred bytes of primary storage for very small computers to many billions of bytes of archival storage for very large computer systems.

Memories may be classified as *electronic* or *electromechanical*. Electronic memories have no moving mechanical parts, and data can be transferred into and out of them at very high speeds. Electromechanical memories depend upon moving mechanical parts for their operation, such as mechanisms for rotating magnetic tapes and disks. Their data access time is longer than is that of electronic memories; however they cost less per bit stored and have larger capacities for data storage. For these reasons most computer systems use electronic memory for primary storage and electromechanical memory for secondary storage.

*Primary storage* has the least capacity and is the most expensive; however, it has the fastest access time. The principal primary storage circuit elements are solid-state devices: magnetic cores and semiconductors/For many years magnetic cores were the principal elements used in digital computers for primary storage. The two principal types of semiconductors used for memory are bipolar and metal-oxide semiconductors (MOS). The former is faster, the latter is more commonly used at present. Because data can be accessed randomly, semiconductor memories are referred to as *random-access memory*, or RAM.

There is a wide range of *secondary storage devices*. Typical hardware devices are rotating electromechanical devices. Magnetic *tapes, disks, and drums* are the secondary storage hardware most often used in computer systems for sequential processing. Magnetic tape, which was invented by the Germans during World War II for sound recording, is the oldest secondary storage medium in common use. Data are recorded in the form of small magnetized "dots" that can be arranged to represent coded patterns of bits.

Tape devices range from large-capacity, high-data-rate units used with large data processing

systems to *cassettes* and *cartridges* used with small systems. Magnetic disk storage, introduced in the early 1960s, has replaced magnetic tape as the main method of secondary storage. As contrasted with magnetic tapes, magnetic discs can perform both sequential and random processing. They are classified as moving-head, fixed-head, or combination moving-head and fixed-head devices. Magnetic discs are the predominant secondary storage media. They include flexible, or floppy discs, called diskettes. The “floppies” were introduced by IBM in 1972 and are still a popular storage medium to meet the demands of the microcomputer market.

## 2. Найдите в тексте английские эквиваленты следующих словосочетаний:

Запоминающие устройства; носители памяти; первичные ЗУ; вторичные ЗУ; время доступа; стоимость ЗУ; диапазон емкости памяти; архивная память; движущиеся механические части; вращающиеся магнитные ленты и диски; по этим причинам; твердотельные устройства; магнитные сердечники; полупроводники; оперативное ЗУ; аппаратное обеспечение вторичной памяти; звукозапись; намагниченные точки; представлять зашифрованную комбинацию единиц информации; в отличие от магнитных лент; последовательная и произвольная обработка; устройства с движущейся и фиксированной головкой; удовлетворять потребности; гибкий диск.

## 3. Ответьте на вопросы, используя информацию текста.

1. How are storage media classified? 2. How is the cost of storage devices expressed? 3. What is the access time for storage media? 4. How does the storage capacity range? 5. What are the two main types of storage devices? 6. What are electronic storage devices? 7. What are the principal primary storage circuit elements? 8. What are the main secondary storage devices? 9. What is the oldest secondary medium and when was it invented? 10. What is a floppy?

## 4. Past Continuous Passive or Past Simple Passive?

1. Many towns (destroy) by the earthquake in Japan last year.
2. He (throw) out of class for cheating.
3. The pop singers arrived at the airport and (welcome) by thousands of fans. Flowers (throw) at them all the way to the exit.
4. The exposition (open) when we drove up to the picture gallery.
5. He couldn't go out as his suit shirt (clean).
6. The petrol tank (fill) last week.
7. The naughty boy (teach) a very good lesson by his friends.



## 3 КУРС 6 СЕМЕСТР ЗАЩИТА ИНФОРМАЦИОННЫХ СИСТЕМ

### Практическое занятие № 1.

**Тема:** Компьютерная сеть. Интернет. Инфинитив.

**Цель:** Введение и закрепление лексического и грамматического материала

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести слова, текст, упр. 1-4.

### THE INTERNET, THE INTRANET, AND NETWORKS

We live in a rapidly changing information society – that is, a society in which large groups of workers generate or depend on information to perform their jobs. The need for more and better information will only continue to grow. Information technology (IT) relates to processes and applications that create new methods to solve problems, perform tasks, and manage communication. Simply put, Information technology is the use of computers and software to manage information. Information technology plays a major role in the 21st century world; today, our economic productivity is based more on technology than on any other advance. IT has resulted in social issues related to privacy, intellectual property, and quality of life. Just a few decades ago computers were considered exotic curiosities, used only by scientists and the military. Today, they have become indispensable not only to businesses but to common people as well. Who can imagine daily life without sending e-mails to friends, booking airline tickets over the Internet, or preparing reports with word processing program?

The Internet has profoundly changed the way people communicate, learn, do business, and find entertainment. Although many people believe the Internet began in the early 1990s, its origins can actually be traced to the late 1950s. Over the past decades, the network evolved from a system for government and university researchers into a tool used by millions around the globe for communication, information, entertainment, and e-business.

The Internet is an International computer Network made up of thousands of networks linked together. All these computers communicate with one another; they share data, resources, transfer information, etc. To do it they need to use the same language or protocol: TCP / IP (Transmission Control Protocol / Internet Protocol) and every computer is given an address or IP number. This number is a way to identify the computer on the Internet.

The Internet's most commonly used network for finding information is the World Wide Web (or more simply, the Web. The Web is a collection of interconnected Web sites or "pages" of text, graphics, audio and video within the Internet. To get on the Internet, you need a computer, a modem, and an Internet service provider (ISP). The modem (modulator-demodulator) converts the digital signals that can be transmitted over telephone lines. Internet service providers provide customers with a connection to the Internet through various phone plugs and cables. Today, connections to the Internet include simple telephone lines (a dial-up telephone connection) or faster digital subscriber lines (DSLs) and cable broadband that carry larger amounts of data at quicker transfer speeds.

Broadband technology is a general term referring to higher speed Internet connections that deliver data, voice, and video material. Broadband technology combines digital, fiber-optic, and wireless network technologies that compress data and transmit them at blinding speeds. And with new wireless technology, it is possible to access the Internet by using your laptop computer, cellular phone, and other wireless communications devices.

The most popular wireless network currently is Wi-Fi. Wi-Fi – short for *wireless fidelity* – is a wireless network that connects various devices and allows them to communicate with one another through radio waves. Wi-Fi allows high-speed wireless Internet connections when linked to a specially equipped modem. In the not-too-distant future, experts expect Wi-Fi to link all sorts of devices – not just computers, but lamps, stereos, appliances, and more – and to fully integrate the Internet into our lives. The basic equipment has changed drastically in the last few years. You may no longer need a computer to use the Internet. New Generation mobile phones and PDAs, personal digital assistants, also allow you to go online

with wireless connections, without cables. Telephone lines are not essential either. Satellites orbiting the Earth enable your computer to send and receive Internet files. Finally, the power-line Internet, still under development, provides access via a power plug.

An intranet is a smaller version of the Internet for use within an organization. Using a series of customized Web pages, employees can quickly find information about their firm as well as connect to external sources. Intranets limit access only to employees or other authorized users. Generally, intranet sites are protected, and users must supply both a user name and a password to gain access to a company's intranet site. Some firms open up their intranets to other selected users through an extranet, a network of computers that permits selected companies and organizations to access the same information. An extranet allows users to share data, process orders, and manage information.

Both the Internet and intranets are examples of a computer network. Today, two basic types of networks affect the way people obtain data and information. A wide-area network (WAN) is a network that connects computers over a large geographic area. The world's most popular WAN is the Internet. A local-area network (LAN) is a network that connects computers that are in close proximity to each other, such as an office building or a college campus.

Most networks are linked with cables or wires but new Wi-Fi, wireless fidelity, technologies allow the creation of WLANs, where cables or wires are replaced by radio waves.

## VOCABULARY

network – (вычислительная, компьютерная) сеть

society – общество

to depend on – зависеть от чего-либо

application – приложение, прикладная программа

software – программное обеспечение; «софт»

productivity – производительность; продуктивность

to result in – кончатся, иметь результатом

privacy – индивидуальная сфера жизни

exotic curiosities – экзотическая редкость, диковинка

indispensable – незаменимый

business – (зд.) предприятие, фирма

origin – начало; происхождение

word processing program – программа обработки текстов

computer network – компьютерная сеть

to link – соединять, связывать

to share data – совместно использовать ресурс; делиться данными

to transfer – передавать, переносить

Transmission Control Protocol (TCP) – протокол управления передачей

IP number (Internet Protocol Number) – IP-номер, IP-адрес

World Wide Web – всемирная паутина, сеть

interconnected – взаимосвязанный

to convert – преобразовывать

to transmit – передавать

Internet service provider – провайдер услуг Интернета

phone plugs – телефонные разъемы

dial-up telephone connection – (коммутируемое) соединение по телефонной линии

digital subscriber line (DSL) – цифровая абонентская линия

cable broadband – кабельные широкополосные соединения

broadband technology – широкополосная технология;

технология широкополосных передач

fiber-optic – волоконно-оптический

wireless – беспроводной

to compress data – сжимать (уплотнять) данные  
to access the Internet – иметь доступ в Интернет  
Wi-Fi (wireless fidelity) – беспроводная точность  
radio waves – радиоволны  
appliances – бытовые электроприборы  
to integrate – объединять  
personal digital assistant (PDA) – персональный цифровой секретарь (тип сверхлёгкого миниатюрного ПК)  
to enable – давать возможность  
power-line Internet – Интернет по линиям электропередач  
intranet – интранет  
customized Web pages – настроенные (заказные) Web страницы  
external source – внешний источник  
extranet – экстранет  
employee – служащий; работник  
authorized user – авторизованный (полномочный) пользователь  
password – пароль  
to gain access – получать доступ  
a wide-area network (WAN) – глобальная компьютерная сеть  
a local area network (LAN) – локальная вычислительная сеть, ЛВС  
in a close proximity – в тесной близости, вблизи  
WLAN – беспроводная ЛВС

### 1. Выберите правильный вариант ответа:

1. Information technology relates to processes and applications that create new methods *to send sounds and signals through space by means of electromagnetic waves / to solve problems, perform tasks, and manage communication.*
2. Simply put, Information technology is the use of computers and software to manage *the information society / information systems / information.*
3. IT plays a *major / secondary* role in the 21st century world; our economic productivity is based *less / more* on technology than on any other advance.
4. The IP number is the abbreviation for *Internet Provider number / Internet Protocol number / Intel Processor number.*
5. Although most of us think that the Internet began in the early 1990s, its origins can actually be traced to *the late 1930s / the late 1940s / the late 1950s.*
6. *The Internet / the World Wide Web* is the global information system that links many computer networks together.
7. A collection of interconnected files or pages of audio, visual, and text data within the Internet is known as *Telnet / DSL / the Web.*
8. The modem *converts the different sounds / digital signals* that can be *transported / transmitted* over *telephone lines / TV cables.*
9. Simple telephone lines carry *smaller / larger* amounts of data at *quicker / slower* transfer speeds than DSLs and cable broadband.
10. Wi-Fi – short for *wired fidelity / wireless fidelity* – is a *wireless / wired* network that connects various devices and allows them to communicate with one another through *radio waves / telephone lines.*

### 2. Вставьте частицу to где это необходимо:

1. I like ... play the guitar.
2. My brother can ... speak French.
3. We had ... put on our overcoats because it was cold.
4. They wanted ... cross the river.
5. It is high time for you ... go to bed.

6. May I ... use your, telephone?  
7. They heard the girl ... cry out with joy.

**3. Закончите следующие предложения, выбирая подходящий инфинитив из правой колонки.**

1. San Francisco is a nice place \_\_\_ a. to cook  
2. The job of a teacher is \_\_\_ students. b. to visit  
3. It is very easy \_\_\_ spaghetti. c. to pay  
4. Sharon wants \_\_\_ to the beach. d. to teach  
5. I need more money \_\_\_ for my books. e. to go

**4. Заполните пропуски, используя инфинитив или спрягаемый глагол там, где это требуется.**

\_\_\_\_\_ to need — to call — to make — to help — to go

Have you ever made plans for a vacation? There are many things to do ahead of time. For example, it's important (1) \_\_\_ hotel reservations. It is also essential (2) \_\_\_ the airline to make sure your flights are arranged. You also (3) \_\_\_ to take appropriate clothing for the climate of your destination. Sometimes, it is a good idea (4) \_\_\_ to a travel agent. They can (5) \_\_\_ you solve any problems related to your trip.

**Практическое занятие № 2.**

**Тема:** Компьютерная сеть. Интернет. Инфинитив.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Ответить на вопросы, упр.3-4.

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to convert – преобразовывать  
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external source – внешний источник  
extranet – экстранет  
employee – служащий; работник  
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### **1. Выберите правильный вариант ответа:**

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9. Simple telephone lines carry *smaller / larger* amounts of data at *quicker / slower* transfer speeds than DSLs and cable broadband.
10. Wi-Fi – short for *wired fidelity / wireless fidelity* – is a *wireless / wired* network that connects various devices and allows them to communicate with one another through *radio waves / telephone lines*.

## 2. Ответьте на вопросы.

1. What is information technology? What role does information technology play in the 21st century world?
2. How has the evolution of the Internet affected the world?
3. What connections to the Internet are available nowadays?
3. Characterize broadband technology.
4. What is Wi-Fi?
5. What is an intranet? An extranet? How are they used?
6. Distinguish between WAN and LAN.
7. Explain what WLANS are.

## 3. Прочитайте предложения и сопоставьте вариант перевода с оригиналом:

1. The problem <u>to be solved</u> was of great international importance.	Проблема, <u>которую надо</u> было решить, имело большое международное значение.
2. <u>To know everything</u> is to know nothing.	<u>Знать всё</u> , значит ,не знать ничего.
3. <u>To know law well</u> the students must study hard.	<u>Чтобы</u> знать хорошо право, студенты должны много заниматься..
4. <u>For international law to be developed</u> the International Law Commission was established in 1947.	<u>Чтобы</u> развивалось международное право, в 1947г. было создана Международная правовая комиссия.
5. To consider cases honestly is the duty of every judge.	Рассматривать дело честно долг каждого судьи.

## 4. Закончите следующие предложения по образцу.

*Model: You should change your stressful way of life in order to lose your symptoms.*

1. We study English in order .....
2. We have entered the Medical Institute in order .....
3. We come to England in order .....
4. She is working hard in order .....
5. I went to the polyclinic in order .....

### Практическое занятие № 3.

**Тема:** Компьютерная сеть. Интернет. Инфинитив.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить пересказ текста, упр.3-4.

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will only continue to grow. Information technology (IT) relates to processes and applications that create new methods to solve problems, perform tasks, and manage communication. Simply put, Information technology is the use of computers and software to manage information. Information technology plays a major role in the 21st century world; today, our economic productivity is based more on technology than on any other advance. IT has resulted in social issues related to privacy, intellectual property, and quality of life. Just a few decades ago computers were considered exotic curiosities, used only by scientists and the military. Today, they have become indispensable not only to businesses but to common people as well. Who can imagine daily life without sending e-mails to friends, booking airline tickets over the Internet, or preparing reports with word processing program?

The Internet has profoundly changed the way people communicate, learn, do business, and find entertainment. Although many people believe the Internet began in the early 1990s, its origins can actually be traced to the late 1950s. Over the past decades, the network evolved from a system for government and university researchers into a tool used by millions around the globe for communication, information, entertainment, and e-business.

The Internet is an International computer Network made up of thousands of networks linked together. All these computers communicate with one another; they share data, resources, transfer information, etc. To do it they need to use the same language or protocol: TCP / IP (Transmission Control Protocol / Internet Protocol) and every computer is given an address or IP number. This number is a way to identify the computer on the Internet.

The Internet's most commonly used network for finding information is the World Wide Web (or more simply, the Web. The Web is a collection of interconnected Web sites or "pages" of text, graphics, audio and video within the Internet. To get on the Internet, you need a computer, a modem, and an Internet service provider (ISP). The modem (modulator-demodulator) converts the digital signals that can be transmitted over telephone lines. Internet service providers provide customers with a connection to the Internet through various phone plugs and cables. Today, connections to the Internet include simple telephone lines (a dial-up telephone connection) or faster digital subscriber lines (DSLs) and cable broadband that carry larger amounts of data at quicker transfer speeds.

Broadband technology is a general term referring to higher speed Internet connections that deliver data, voice, and video material. Broadband technology combines digital, fiber-optic, and wireless network technologies that compress data and transmit them at blinding speeds. And with new wireless technology, it is possible to access the Internet by using your laptop computer, cellular phone, and other wireless communications devices.

The most popular wireless network currently is Wi-Fi. Wi-Fi – short for *wireless fidelity* – is a wireless network that connects various devices and allows them to communicate with one another through radio waves. Wi-Fi allows high-speed wireless Internet connections when linked to a specially equipped modem. In the not-too-distant future, experts expect Wi-Fi to link all sorts of devices – not just computers, but lamps, stereos, appliances, and more – and to fully integrate the Internet into our lives. The basic equipment has changed drastically in the last few years. You may no longer need a computer to use the Internet. New Generation mobile phones and PDAs, personal digital assistants, also allow you to go online with wireless connections, without cables. Telephone lines are not essential either. Satellites orbiting the Earth enable your computer to send and receive Internet files. Finally, the power-line Internet, still under development, provides access via a power plug.

An intranet is a smaller version of the Internet for use within an organization. Using a series of customized Web pages, employees can quickly find information about their firm as well as connect to external sources. Intranets limit access only to employees or other authorized users. Generally, intranet sites are protected, and users must supply both a user name and a password to gain access to a company's intranet site. Some firms open up their intranets to other selected users through an extranet, a network of computers that permits selected companies and organizations to access the same information. An extranet allows users to share data, process orders, and manage information.

Both the Internet and intranets are examples of a computer network. Today, two basic types of networks affect the way people obtain data and information. A wide-area network (WAN) is a network that connects computers over a large geographic area. The world's most popular WAN is the Internet. A local-



area network (LAN) is a network that connects computers that are in close proximity to each other, such as an office building or a college campus.

Most networks are linked with cables or wires but new Wi-Fi, wireless fidelity, technologies allow the creation of WLANs, where cables or wires are replaced by radio waves.

## VOCABULARY

network – (вычислительная, компьютерная) сеть

society – общество

to depend on – зависеть от чего-либо

application – приложение, прикладная программа

software – программное обеспечение; «софт»

productivity – производительность; продуктивность

to result in – кончатся, иметь результатом

privacy – индивидуальная сфера жизни

exotic curiosities – экзотическая редкость, диковинка

indispensable – незаменимый

business – (зд.) предприятие, фирма

origin – начало; происхождение

word processing program – программа обработки текстов

computer network – компьютерная сеть

to link – соединять, связывать

to share data – совместно использовать ресурс; делиться данными

to transfer – передавать, переносить

Transmission Control Protocol (TCP) – протокол управления передачей

IP number (Internet Protocol Number) – IP-номер, IP-адрес

World Wide Web – всемирная паутина, сеть

interconnected – взаимосвязанный

to convert – преобразовывать

to transmit – передавать

Internet service provider – провайдер услуг Интернета

phone plugs – телефонные разъемы

dial-up telephone connection – (коммутируемое) соединение по телефонной линии

digital subscriber line (DSL) – цифровая абонентская линия

cable broadband – кабельные широкополосные соединения

broadband technology – широкополосная технология;

технология широкополосных передач

fiber-optic – волоконно-оптический

wireless – беспроводной

to compress data – сжимать (уплотнять) данные

to access the Internet – иметь доступ в Интернет

Wi-Fi (wireless fidelity) – беспроводная точность

radio waves – радиоволны

appliances – бытовые электроприборы

to integrate – объединять

personal digital assistant (PDA) – персональный цифровой секретарь (тип сверхлёгкого миниатюрного ПК)

to enable – давать возможность

power-line Internet – Интернет по линиям электропередач

intranet – интранет

customized Web pages – настроенные (заказные) Web страницы

external source – внешний источник

extranet – экстранет

employee – служащий; работник

authorized user – авторизованный (полномочный) пользователь

password – пароль

to gain access – получать доступ

a wide-area network (WAN) – глобальная компьютерная сеть

a local area network (LAN) – локальная вычислительная сеть, ЛВС

in a close proximity – в тесной близости, вблизи

WLAN – беспроводная ЛВС

### 1. Выберите правильный вариант ответа:

1. Information technology relates to processes and applications that create new methods *to send sounds and signals through space by means of electromagnetic waves / to solve problems, perform tasks, and manage communication.*
2. Simply put, Information technology is the use of computers and software to manage *the information society / information systems / information.*
3. IT plays a *major / secondary* role in the 21st century world; our economic productivity is based *less / more* on technology than on any other advance.
4. The IP number is the abbreviation for *Internet Provider number / Internet Protocol number / Intel Processor number.*
5. Although most of us think that the Internet began in the early 1990s, its origins can actually be traced to *the late 1930s / the late 1940s / the late 1950s.*
6. *The Internet / the World Wide Web* is the global information system that links many computer networks together.
7. A collection of interconnected files or pages of audio, visual, and text data within the Internet is known as *Telnet / DSL / the Web.*
8. The modem *converts the different sounds / digital signals* that can be *transported / transmitted* over *telephone lines / TV cables.*
9. Simple telephone lines carry *smaller / larger* amounts of data at *quicker / slower* transfer speeds than DSLs and cable broadband.
10. Wi-Fi – short for *wired fidelity / wireless fidelity* – is a *wireless / wired* network that connects various devices and allows them to communicate with one another through *radio waves / telephone lines.*

### 2. Ответьте на вопросы.

1. What is information technology? What role does information technology play in the 21st century world?
2. How has the evolution of the Internet affected the world?
3. What connections to the Internet are available nowadays?
3. Characterize broadband technology.
4. What is Wi-Fi?
5. What is an intranet? An extranet? How are they used?
6. Distinguish between WAN and LAN.
7. Explain what WLANS are.

### 3. Найдите в предложениях ошибки, если они имеются.

1. The teacher made John to apologize.
2. What are you planning to eat for lunch?
3. That old car may not to cost much.
4. I don't want wait any longer.
5. My father promised buy new shoes for me.
6. I would like to try this shirt on.
7. We must to hurry up.
8. Mark was unable to do anything else.

9. They couldn't to fall asleep till midnight.
10. Sheila refused delete files and folders about cooking.

**4. Выберите в скобках подходящий глагол, обращая внимание на следующий за ним инфинитив. Переведите предложения.**

1. You ... (can/have) to sing this song.
2. Don't ... (allow/make) her to marry Mike.
3. Mother ... (asked/let) him to explain his words.
4. Jill ... (persuaded/made) me to play a joke on Tom.
5. We ... (saw/offered) him steal the wallet.
6. Did you ... (agree/hear) her shout at me?
7. I couldn't ... (see/convince) her to leave early.
8. Stormy weather ... (caused/must) the airline to cancel out flight.
9. Tony ... (should/seems) to know a lot about global warming.
10. The nurse ... (saw/asked) the children to roll up their sleeves.

**Практическое занятие № 4.**

**Тема:** Система Wi-fi. Инфинитив страдательного залога.

**Цель:** Введение и закрепление лексического и грамматического материала.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести слова, текст, упр.1-3.

**Wi-Fi**

Wi-Fi is the term very popular around the world which designates a high frequency wireless local network (WLAN). The word Wi-Fi is a pun on hi-fi and was invented to replace the old long name "IEEE 802.11b Direct Sequence Spread Spectrum".

The Wi-Fi is a protocol of wireless data transmission which helps to connect some computers in a network, or it is simple to connect them to the Internet, with a small radius of the action, using radio waves.

To connect to a Wi-Fi LAN, a computer has to be equipped with a wireless network interface controller. The combination of a computer and an interface controller is called a station. All stations share a single radio frequency

communication channel. Transmissions on this channel are received by all stations within the range. The hardware does not signal the user that the transmission was delivered and is therefore called a best-effort delivery mechanism. A carrier wave is used to transmit the data in packets, referred to as "Ethernet frames". Each station is constantly tuned in on the radio frequency communication channel to pick up available transmissions.

Wi-Fi can be used for signal distribution in the apartment or a conference room, or even on distance in some kilometers. One point of access of Wi-Fi can provide action radius to 100-200meters. Besides home and office networks, Wi-Fi was widely adopted in the sphere of the organization of public Internet access.

Many devices can use Wi-Fi, e.g., personal computers, video-games consoles, smartphones, some digital cameras, tablet computers and digital audio players. These can connect to a network resource such as the Internet via a wireless network access point. Such an access point (or hotspot) has a range of about 20meters (66feet) indoors and a greater range outdoors. Hotspot coverage can comprise an area as small as a single room with walls that block radio waves, or as large as many square kilometers achieved by using multiple overlapping access points. Coverage in the larger area may require a group of access points with overlapping coverage.

The Wi-Fi technology allows to solve three important problems:

1. to simplify communication with the mobile computer;
2. to provide comfortable conditions for work to the business partners who have come to an office with the laptop;
3. to create a local network in rooms where laying of a cable is impossible.

Wi-Fi is a set of global standards. Unlike cell phones, the equipment can work with Wi-Fi in different countries worldwide.

Wi-Fi can be less secure than wired connections (such as Ethernet) because an intruder does not need a physical connection. Web pages that use SSL are secure but unencrypted internet access can easily be detected by intruders. Because of this, Wi-Fi has adopted various encryption technologies.

There are many different types of Wi-Fi (IEEE 802.11) standards, some of the more commonly known ones are Wireless A,B,G,N and now the newly suggested AC & AD. The major difference between these standards is the distance which devices can connect to the access points and the speed (bandwidth) at which these devices can go. Routers that incorporate a digital subscriber line modem or a cable modem and a Wi-Fi access point, often set up in homes and other buildings, provide Internet access and internetworking to all devices connected to them, wirelessly or via cable.

Similarly, there are battery-powered routers that include a cellular mobile Internet radio modem and Wi-Fi access point.

Most wireless networks use one of two frequency bands. These are not the only two bands, but probably those used most widely, by common users. One of the bands is at around 2.4 GHz, and the other is at 5 GHz. Both of these bands have benefits and drawbacks: The 2.4 GHz band is widely used, and devices are usually cheaper.

The main problem is that only three or four devices can be used at the same time, without their communication interfering. Another problem is that microwave ovens, baby phones, DECT telephones and other wireless devices mostly use the 2.4 GHz band. Using the 5 GHz band increases the number of devices to around 19, but there are more rules for using it. In some places, the 5 GHz band may not be used outdoors. Because less devices use the 5 GHz band, devices that do are often more expensive.

The World Health Organization says that Wi-Fi is not dangerous.

### **Topical vocabulary**

IEEE: Institute of Electrical and Electronics Engineers

SSL: Secure Socket Layer

DECT: Digital Enhanced Cordless Telecommunications

#### **WORD COMBINATIONS AND PHRASES**

to be a pun on to have benefits and drawbacks

signal distribution without interfering

hotspot coverage to be dangerous

to comprise an area wired connections

overlapping access points to be detected by intruders

to be less secure a radius of the action

to replace the name frequency bands

### **1. Переведите словосочетания из текста с русского на английский.**

Набор глобальных стандартов, высокочастотная сеть, спектр расширения, создать локальную сеть, беспроводная передача данных, упростить связь, надёжный (безопасный), физическое соединение, незашифрованный доступ, прокладка кабеля, соединять с пунктом доступа, увеличить, ширина полосы, пре-

имущества и недостатки, пульт управления видеоигрой, покрытие специальными пунктами доступа, технологии шифрования, заменить старое название, небольшой радиус действия, передавать данные пакетами, несущая волна, постоянно настраиваться, частично совпадающие точки доступа.

### **2. Переведите на русский язык, обращая внимание на Active Infinitive и Passive Infinitive.**

1. **To play chess** was his greatest pleasure.
2. The child did not like **to be washed**.
3. We like **to be praised** and don't like **to be scolded**.

4. Which is more pleasant: **to give presents** or **to be given presents**?
5. He was glad **to be driven home** in a car.

### 3. Переведите на русский язык, обращая внимание на Passive Perfect Infinitive.

1. Children were happy **to have been brought home**.
2. Jane remembered **to have been told a lot about the place**.
3. The boys were delighted **to have been brought to the circus**.
4. He was happy **to have been praised by everybody**.
5. She was excited **to have been taken** to the cinema.

### Практическое занятие № 5.

**Тема:** Система Wi-fi. Инфинитив страдательного залога.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Упр.1.

### Wi-Fi

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The Wi-Fi technology allows to solve three important problems:

1. to simplify communication with the mobile computer;
2. to provide comfortable conditions for work to the business partners who have come to an office with the laptop;
3. to create a local network in rooms where laying of a cable is impossible.

Wi-Fi is a set of global standards. Unlike cell phones, the equipment can work with Wi-Fi in different countries worldwide.

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to replace the name frequency bands

### **1. Заполните пропуски предложениями. Переведите предложения.**

1. Wi-Fi is a way of accessing the internet ..... using wires. 2. Most wireless networks use one .... two frequency bands. 3. Wi-Fi is a wireless brand owned ..... the Wi-Fi Alliance. 4. Wi-Fi has the limited radius ... the action. 5. Wi-Fi technology provides comfortable conditions ..... work to the business partners. 6. Wi-Fi devices are widespread ..... the market. 7. Devices of different producers can interact .... A basic level of services.

Keys: *for, by, at, of, without, in, of.*

### **Практическое занятие № 6.**

**Тема:** Система Wi-fi. Инфинитив страдательного залога.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить пересказ текста.

### **Wi-Fi**

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### **2. Заполните пропуски предлогами. Переведите предложения.**

1. Wi-Fi is a way of accessing the internet ..... using wires. 2. Most wireless networks use one .... two frequency bands. 3. Wi-Fi is a wireless brand owned ..... the Wi-Fi Alliance. 4. Wi-Fi has the limited radius ... the action. 5. Wi-Fi technology provides comfortable conditions ..... work to the business partners. 6. Wi-Fi devices are widespread ..... the market. 7. Devices of different producers can interact .... A basic level of services.

Keys: *for, by, at, of, without, in, of.*

## **Практическое занятие № 7.**

**Тема:** Система Bluetooth. Инфинитив активного залога.

**Цель:** Введение и закрепление лексического и грамматического материала.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести слова, текст, упр.1.

### **Topical vocabulary**

Bluetooth – Блютус; технология беспроводной ближней связи, позволяющая объединять устройства разных типов для передачи речи и данных

short-range – ближнего радиуса действия

personal area network – персональная (личная) сеть

to clutter – загромождать

to unify – объединять

tribes – племена

headset – наушники с присоединённым микрофоном

aware – осведомлённый, знающий

flaw – недостаток, изъян

range – радиус действия

to range – колебаться

susceptible – восприимчивый; уязвимый

concern – (зд.) проблема

to expose – раскрывать, открывать



in the vicinity – поблизости

Bluesnarfing – «блюснарфинг»; хакерская атака, использующая технологию Bluetooth для доступа к данным,

содержащимся в сотовых телефонах

Bluebugging – «блюбагинг»; несанкционированная передача или изменение данных, осуществление телефонных звонков и прослушивания

intruder – злоумышленник; нарушитель

to eavesdrop – подслушивать

denial-of-service – отказ в обслуживании

exploit – (зл.) вторжение

inoperable – неработающий, нефункционирующий

to propagate – размножаться, распространяться

Symbian OS – ОС для сотовых телефонов, смартфонов и коммутированных

to seize control – захватить контроль

## WHAT IS BLUETOOTH?

**Bluetooth**, invented by Swedish telecom giant Ericsson, is a short-range wireless technology. With Bluetooth wireless technology, you can wirelessly connect your personal electronic devices, taking wireless technology for personal area networks (PANs) to a whole new level. So there's no need for you to clutter your office with cables connecting your gadgets – your printer, PC, mobile, fax machine, digital camera, and so on.

What is the meaning of a name? Names usually hold history and importance. Ericsson named its new wireless technology after King Harold Bluetooth. King Harold Bluetooth is famous for his efforts in “unifying” the tribes from Norway, Denmark, and Sweden. Ericsson's Bluetooth technology aims to unify and connect up to eight different electronic devices. Some of the options Bluetooth technology provides, include:

- Hands-free headset for voice calls

- Improved printing and fax options

- Mobile phone application

Although **wireless security** is a hot topic these days, you seldom hear any conversations about the vulnerabilities in Bluetooth technology. However, there are a few experts aware of the flaw in Bluetooth, believing that it is one of the most inefficient technologies of modern times in regards to security.

Bluetooth was intended to be the basis of the PAN (personal area network) setting, providing a way for devices in close proximity to wirelessly communicate with each other. The range of these transmissions ranges from an estimated 1 to 100 meters, depending on the device's power. The most powerful class of Bluetooth devices has the ability to communicate at distances similar to a Wi-Fi network, which is typically more than 300 feet. Similar to a wireless computer network, Bluetooth is susceptible to a wide range of security threats.

Some people use Bluetooth to create temporary computer networks. This is commonly done in a corporate setting where staff members have a need to share files. When using Bluetooth to establish a network, computers interact directly with one another opposed to using a wireless access point. This means there is no centralized point of control, creating a major security concern as important data can be exposed to others using the Bluetooth network. Since the range for some classes of Bluetooth devices can be well over 300 feet, an outsider may be able to establish a link from your network even when not directly in the vicinity.

Bluetooth-enabled mobile phones are another concern. These devices often store personal information such as calendar information, home addresses, contact phone numbers and other sensitive data. Someone with a little knowledge on the technology can use it to hack into these phones and thief that information, a practice more commonly termed as bluesnarfing.

Bluebugging is a similar **Bluetooth hacking** technique. It involves accessing a mobile phone's commands which allows an intruder to make calls, add, modify or delete contacts or eavesdrop on the victim's phone conversations. Bluetooth devices have also been targets of DoS attacks (denial-of-service)

attacks. Similar to computer network exploits, this attack involves flooding a device with so many requests that it becomes inoperable as the battery quickly degrades.

Bluetooth technology has also been targeted by malware in the form of viruses and worms. One such infection is Cabir, a piece of malicious software that propagates to other Bluetooth-enabled devices using the Symbian OS. An attacker can use this type of exploit to erase phone numbers and contacts or completely seize control of someone else's phone.

### **1. Раскройте скобки, используя формы Active & Passive Infinitive.**

1. She pretended that she didn't want (to dance).
2. He is always glad (to talk) about his hobby.
3. She smiled and waved her hand. She seemed (to recognize) me.
4. The children liked (to tell) fairy tales.
5. The dog was happy (to take) out.

### **Практическое занятие № 8.**

**Тема:** Система Bluetooth. Инфинитив активного залога.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить вопросы к тексту, упр. 1.

### **Topical vocabulary**

Bluetooth – Блютус; технология беспроводной ближней связи, позволяющая объединять устройства разных типов для передачи речи и данных

short-range – ближнего радиуса действия

personal area network – персональная (личная) сеть

to clutter – загромождать

to unify – объединять

tribes – племена

headset – наушники с присоединённым микрофоном

aware – осведомлённый, знающий

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Bluetooth technology has also been targeted by malware in the form of viruses and worms. One such infection is Cabir, a piece of malicious software that propagates to other Bluetooth-enabled devices using the Symbian OS. An attacker can use this type of exploit to erase phone numbers and contacts or completely seize control of someone else's phone.

### 1. Замените придаточные предложения инфинитивными оборотами.

Пример: *He is so old that he cannot skate. — He is too old to skate.*

1. The problem is so difficult that it is impossible to solve it.
2. The box is so heavy that nobody can carry it.
3. The baby is so little that it cannot walk.
4. He is so weak that he cannot lift this weight.
5. She is so busy that she cannot talk with you.
6. She was so inattentive that she did not notice the mistake.
7. The rule was so difficult that they did not understand it.

8. He was so stupid that he did not see the joke.
9. She has got so fat that she cannot wear this dress now.
10. The accident was so terrible that I don't want to talk about it.
11. They were so empty-headed that they could not learn asingle thing.
12. The window was so dirty that they could not see through it.
13. She was so foolish that she could not understand my explanation.
14. I have very little wool: it won't make a sweater.

### Практическое занятие № 9.

**Тема:** Компьютерные преступления. Сложное дополнение.

**Цель:** Введение и закрепление лексического и грамматического материала.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести слова, текст, упр.1-3.

#### Topical vocabulary

business assets – бизнес-активы; капитал; достояние деловой жизни

information security – информационная безопасность, обеспечение информационной безопасности

unauthorized user – несанкционированный; полномочный пользователь

disclosure – раскрытие

disruption – срыв; нарушение

modification – модификация, видоизменение

inspection – инспекция: проверка

destruction – уничтожение, разрушение

threat – угроза

computer crime – компьютерная преступность (преступление)

disaster – бедствие; авария; катастрофа

malicious intentions – вредоносные (преступные) намерения

cracker – “крэкер”; взломщик компьютерных систем

black hat hacker – “чёрный” хакер

classified information = – засекреченная информация;

sensitive information секретные сведения

outsider – постороннее лицо

to alter data – изменять данные

inaccurate – неточный

misleading – вводящий в заблуждение; обманный

illegal transactions – незаконные сделки

illicit benefit – незаконная выгода

violation – нарушение; преступление

the Computer Emergency – координационный центр реагирования Response Team Center на чрезвычайные компьютерные происшествия (США)

to soar – резко возрасть

scam – надувательство, обман

fraud – мошенничество

phishing – фишинг (рассылка электронных сообщений по Интернету от имени солидных компаний с целью получения их личных данных)

piracy – компьютерное пиратство

copyrighted software – программы, охраняемые авторским правом

vulnerable – уязвимый

to hack into – взламывать; проникать

to embarrass – приводить в замешательство

supposedly – предположительно

to post evidence – отправить доказательства (to) break-in – взлом; взламывать  
the U.S. Space and Naval War Systems Command – командование военными космическими и морскими системами (США)  
competitor – конкурент  
thief – вор  
to raid – рейдерски захватывать; грабить  
database – база данных  
security breach – (зд) взлом системы безопасности  
annually – ежегодно  
estimated cost – подсчитанные затраты  
system administrator – системный администратор  
to implement – выполнять, осуществлять, проводить  
to prevent – предотвращать, предупреждать  
firewall – межсетевой защитный экран, брандмауэр  
to log system use – регистрировать пользование системой  
to log on with invalid password – входить в систему с недействительным паролем

## PROTECTING INFORMATION SYSTEMS: COMPUTER CRIME

As information systems become increasingly important business assets, they also become progressively harder to replace. When computers are connected to a network, a problem at any location can affect the entire work. Perhaps the most significant problem businesses face as a result of computer technology is information security. **Information security** means protecting information and information systems from unauthorized access, use, disclosure, disruption, modification, inspection, recording or destruction. There are three important security threats that may damage information systems: **computer crime**, **viruses**, and **disasters**.

### COMPUTER CRIME

Computers provide efficient ways for people to share information. But they may also allow people with more malicious intentions to access information. Or they may allow **crackers**, or **black hat hackers** – computer criminals who use technology to perform a variety of crimes – to gain access to classified information. Common computer crimes involve stealing or altering data in several ways:

Employees or outsiders may change or invent data to produce inaccurate or misleading information.

Employees or outsiders may modify computer programs to create false information or illegal transactions or to insert viruses.

Unauthorized people can access computer systems for their own illicit benefit or knowledge or just to see if they can get it.

Computer crime is on the rise. The number of violations of Internet security as reported to the Computer Emergency Response Team Coordination Center, located on the Web at <http://www.cert.org>, has risen sharply in recent years. In 1990, only six incidents were reported. Recently, the number of reported incidents soared to over 82,000. Of course, the statistics don't include the number of incidents that were not reported, so the total is probably much higher.

Internet-based crimes include **scam**, email fraud to obtain money or valuables, and **phishing**, bank fraud, to get banking information such as passwords of Internet bank accounts or credit card details. Both crimes use emails or websites that look like those of real organizations. **Piracy**, the illegal copying and distribution of copyrighted software, information, music, and video files, is widespread.

Individuals, businesses, and government agencies are all vulnerable to computer crime. Computer hackers sometimes work alone and sometimes in groups. One pair of hackers, nicknamed the “Deceptive Duo”, once claimed that they hacked into Midwest Express Airlines' intranet. In an email to several news organizations, the hackers said that their goal was to embarrass the airline and show how easy it is to gain access to supposedly secure networks. The hackers even posted evidence of their break-in on the Web site of the U.S. Space and Naval War Systems Command. In one recent case, Russian hackers broke into Citibank's network and electronically stole \$10 million.

Companies with valuable or sensitive information stored in a computer worry about competitors or thieves raiding the database simply by dialing in through a modem. Even firms that don't share their databases are subject to security breaches. In recent years U.S. corporations have spent more than \$10 billion annually on network security. Even so, the estimated annual cost of computer crime is as high as \$15 billion. The entire U.S. electronic infrastructure, including banks, financial markets, transportation systems, power grids, and telecommunication systems, could be vulnerable to attack. Companies and organizations must take strong precautions to protect themselves.

System administrators implement two basic protections against computer crime: They try to prevent access to their systems by unauthorized users and the viewing of data by unauthorized system users. To prevent access, the simplest method requires authorized users to enter passwords. An intranet blocks outsiders without valid passwords from entering its network by incorporating software known as a **firewall**. Firewalls limit data transfers to certain locations and log system use so managers can identify attempts to log on with invalid passwords and other threats to system security.

To prevent system users from reading sensitive information, the company may use encryption software, which encodes, or scrambles, messages. Information security uses **cryptology** to transform information into a form that renders it unusable by anyone other than an authorized user; this process is called **encryption**. To read encrypted messages, users must use a key to convert them to regular text. Information that has been encrypted (rendered unusable) can be transformed back into its original usable form by an authorized user, who possesses the cryptographic key, through the process of **decryption**. The length and strength of the cryptographic key is an important consideration. A key that is weak or too short will produce weak encryption. More than one key can be used to encrypt and decrypt sensitive information. The keys used for encryption and decryption must be protected from disclosure and destruction and they must be available when needed. Cryptology is used in information security to protect information from unauthorized or accidental disclosure while the information is in transit and while information is in storage. But as fast as software developers invent new and more elaborate protective measures, hackers seem to break through their defenses. So security is an ongoing battle.

### 1. Верно или неверно?

*Пример: In my opinion it is true that... / To my mind it is false that ... because...*

1. The growth of information technology and the Internet has resulted in such a significant problem as information security.
2. There are two important security threats that may damage information systems: computer crime and viruses.
3. Crackers, or black hat hackers, are computer criminals who use technology to perform various crimes.
4. The number of violations of Internet security has fallen sharply in recent years.
5. Internet-based crimes include phishing, email fraud to obtain money or valuables, and scam, bank fraud, to get banking information.
6. Computer technology is widely used to pirate copyrighted works such as films and music.
7. Nowadays all organizations are vulnerable to computer crime.
8. Sometimes hackers want to show how easy it is to gain access to supposedly secure networks.
9. The firms that don't share their databases are completely protected against security breaches.
10. U.S. corporations seldom spend money on network security though the estimated annual cost of computer crime is as high as \$15 billion.

### 2. Раскройте скобки, используя сложное дополнение. Переведите.

1. I want (she) to be my wife.
2. My brother taught ( I ) to swim and dive.
3. They would like (we) to read aloud.
4. Bob advised (she) to stay for another week.
5. We expect (he) to arrive at noon.
6. I heard (you) open the door.

7. Dad always makes ( I ) go fishing with him every weekend.
8. Our parents expect (we) to stop quarreling.
9. Sara never lets (he) drive her car.
10. I saw (you) cross the street.

**3. Поставьте «to» там, где необходимо.**

1. We heard the lorry ... stop near the house.
2. I want my elder sister ... take me to the zoo.
3. I believe the Internet ... be the greatest invention ever.
4. The teacher doesn't let us ... use our mobile phones.
5. They didn't expect her ... be late.
6. The police officer made him ... tell the truth.
7. I would like you ... admit your fault.
8. Swan believes Vicky ... be the best manager in our store.
9. Nick persuaded me ... go in for sports.
10. We saw Jacob ... break the window.
11. I consider this sculpture ... be a masterpiece.
12. She noticed Mary suddenly ... turn pale.

**Практическое занятие № 10.**

**Тема:** Компьютерные преступления. Сложное дополнение.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Ответить на вопросы, упр. 2-3.

**Topical vocabulary**

business assets – бизнес-активы; капитал; достояние деловой жизни

information security – информационная безопасность, обеспечение информационной безопасности

unauthorized user – несанкционированный; полномочный пользователь

disclosure – раскрытие

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System administrators implement two basic protections against computer crime: They try to prevent access to their systems by unauthorized users and the viewing of data by unauthorized system users. To prevent access, the simplest method requires authorized users to enter passwords. An intranet blocks outsiders without valid passwords from entering its network by incorporating software known as a **firewall**. Firewalls limit data transfers to certain locations and log system use so managers can identify attempts to log on with invalid passwords and other threats to system security.

To prevent system users from reading sensitive information, the company may use encryption software, which encodes, or scrambles, messages. Information security uses **cryptography** to transform information into a form that renders it unusable by anyone other than an authorized user; this process is called **encryption**. To read encrypted messages, users must use a key to convert them to regular text. Information that has been encrypted (rendered unusable) can be transformed back into its original usable form by an authorized user, who possesses the cryptographic key, through the process of **decryption**. The length and strength of the cryptographic key is an important consideration. A key that is weak or too short will produce weak encryption. More than one key can be used to encrypt and decrypt sensitive information. The keys used for encryption and decryption must be protected from disclosure and destruction and they must be available when needed. Cryptography is used in information security to protect information from unauthorized or accidental disclosure while the information is in transit and while information is in storage. But as fast as software developers invent new and more elaborate protective measures, hackers seem to break through their defenses. So security is an ongoing battle.

### **1. Ответьте на вопросы.**

1. Name the most significant problem that businesses and organizations face as a result of computer technology.
2. What is information security?
3. Identify the three important threats that may damage information systems.
4. Explain the term “black hat hacker”.
5. What do common computer crimes involve?
6. What do Internet-based crimes include? Explain the terms “scam”, “phishing” and “piracy”.
7. Why must companies and organizations take strong precautions to protect themselves?
8. What basic protections do system administrators implement against computer crime?
9. Explain how firewalls work.
10. What is cryptography used for? Describe the processes of encryption and decryption.
11. Why is it said that security is an ongoing battle.

## 2. Перефразируйте предложения, используя сложное дополнение.

Пример: *I want that she will cook mushroom soup. – I want her to cook mushroom soup.*

1. The children were laughing and enjoying themselves on the beach. Their parents saw them. – Their parents saw ... .
2. They said: “He is an expert in our industry.” – They consider ... .
3. The bike disappeared in the forest. The policeman noticed it. – The policeman noticed ... .
4. Elvis said to his son: “Don’t watch horror films.” – Elvis doesn’t let ... .
5. “Mummy, please, buy me that doll”, said the little girl. – The little girl would like ... .
6. Dad says that I can travel to China with you. – Dad allows ... .
7. He swears a lot. Many people heard that. – Many people heard ... .
8. “Bring me some water from the well,” my grandmother said. – My grandmother wanted ... .
9. Somebody was watching me. I felt that. – I felt ... .
10. Daniel said: “Helen, you can go to a night club tonight.” – Daniel let ... .

## 3. Поставьте глагол в правильной форме: -ing, infinitive with or without to (с окончанием -ing, инфинитивом с частицей to или без частицы to).

1. The film was very sad. It made me ..... (cry)
2. Have you got enough money or do you want me ..... you some. (lend)
3. I heard her ..... the door and ..... (open, go out)
4. She told him ..... the door. (lock)
5. I saw him ..... the ducks. (feed)

### Практическое занятие № 11.

**Тема:** Шифрование данных. Сложное подлежащее.

**Цель:** Введение и закрепление лексического и грамматического материала.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести слова, текст, упр.1-3.

#### Topical vocabulary

encryption – шифрование

decryption – расшифровка

to encode = to encipher = расшифровывать

to scramble – шифровать, кодировать

cryptography – криптография

cryptographic key – криптографический ключ

available – доступный; готовый к использованию

in transit – в пути; в процессе передачи

elaborate – сложный; усовершенствованный

protective measures – меры защиты

### TYPES OF DATA ENCRYPTION

The data transferred from one system to another over the public network can be protected by the method of encryption. On encryption the data is encrypted / scrambled by any encryption algorithm using the key. Only a user having access to the same key can decrypt / descramble the encrypted data. A single secret cryptographic key is used for both encryption and decryption. This method is known as **private key** or **symmetric key cryptography**.

There are several standard symmetric key algorithms defined. Examples are AES, 3DES and Blowfish. These standard symmetric algorithms are proven to be highly secured and time tested. But the problem with these algorithms is the key exchange. The communicating parties require a shared secret, key, to be exchanged between them to have a secured communication. The security of the symmetric key

algorithm depends on the secrecy of the key. Keys are typically hundreds of bits in length, depending on the algorithm used. Since there may be a number of intermediate points between the communicating parties through which the data passes, these keys cannot be exchanged online in a secured manner. In a large network, where there are hundreds of systems connected, offline key exchange seems too difficult and even unrealistic.

This is where **public key cryptography**, also known as **asymmetric cryptography**, is a help. Using public key algorithm a shared secret can be established online between communicating parties without the need for exchanging any secret key. In public key cryptography, each user has a pair of cryptographic keys – a **public key** and a **private key**. Only the particular user / device knows the private key whereas the public key is distributed to all users / devices taking part in the communication. The sender encrypts / scrambles the message in such a way that only the recipient will be able to decrypt / descramble the message. A disadvantage of using public-key cryptography for encryption is speed. Asymmetric key algorithms are hundreds to thousands times slower than symmetric key algorithms.

Consider a device B whose private key and public key are PB and UB respectively. Since UB is public key all devices will be able to use it. For any device that needs to send the message 'Msg' in a secured way to device B, it will encrypt the data using B's public key to obtain the cipher text 'Ctx'. The encrypted message, cipher text, can only be decrypted using B's private key. On receiving the message B decrypts it using the private key PB. Since only B knows the private key PB none other including A can decrypt the message. It is important that device A receives the correct public key from device B, i.e. no middleman must tamper or change the public key to its public key. Digital Certificate helps to deliver the public key in an authenticated method. The Digital Certificate is an electronic document that uses a digital signature to bind a public key with an identity – information such as the name of a person or an organization, their address, and so forth.

A digital signature is a mathematical scheme for demonstrating the authenticity of an electronic message or document. A valid digital signature gives a recipient reason to believe that the message was created by a known sender, and that it was not altered in transit. If any the data or signature is modified, the signature verification fails.

The digital signature is simply a small block of data that is attached to documents you sign. It is generated from your digital ID (цифровой идентификатор), which includes both a private and public key. The private key is used to apply the signature to the document, while the public key is sent with the file. The public key contains encrypted code, also called a "**hash**", that verifies your identity.

### **1. Переведите словосочетания из текста с русского на английский.**

1. данные, передаваемые от одной системы к другой
2. по сети общего пользования
3. любой алгоритм шифрования
4. единственный секретный криптографический ключ
5. криптография с секретным ключом (одноключевая криптография)
6. криптография с открытым ключом или ассиметричная криптография
7. стандартные алгоритмы с симметричным ключом
8. быть на высоком уровне безопасности и проверенными временем
9. обмен ключа
10. взаимодействующие стороны
11. совместно используемый секретный ключ
12. ряд промежуточных пунктов
13. внесетевой (в режиме офлайн) обмен ключа
14. отправитель и получатель
15. недостаток в использовании криптографии с открытым ключом
16. в сотни и тысячи раз медленнее
17. являться PB и UB соответственно
18. поскольку UB есть открытый ключ...
19. расшифровать сообщение

20. посредник

**2. Найдите в предложениях оборот “сложное подлежащее с инфинитивом”. Переведите предложения на русский язык.**

1. The President is believed to be in London now. 2. She is supposed to be an experienced secretary. 3. The computer is expected to save the scientists a lot of time. 4. The material loss (материальный ущерб) was estimated to be more than 1 mln dollars. 5. This discovery is considered to be the result of a long and thorough investigation. 6. These phenomena are believed to be interdependent. 7. The expedition is reported to be moving north. 8. This man is said to be a good psychologist. 9. The talks are reported to be in progress. 10. The head of the expedition was held responsible for the accident.

**3. Замените сложно-подчиненные предложения на простые, используя оборот “сложное подлежащее с инфинитивом”.**

Образец: It is said that he is a good student. He is said to be a good student.

1. It is known that they will arrive tomorrow.
2. It is expected that the conference will take place in Kiev.
3. It is hoped that the new edition of this book will be of no less interest to the reader.
4. It will be noticed that these poems are of quite a different character.
5. It has been shown in the above examples that the sense of the sentence often depends on the order of words.
6. It is sometimes said that the Nile is longer than all the rivers in the eastern and western hemispheres.
7. It will be seen from the following tables that the sounds do not coincide in quality.
8. It was thought useful to apply this method here.
9. It has been estimated that the volume contained 220 pages.
10. It is known that dreams reflect our waking life.

### Практическое занятие № 12.

**Тема:** Шифрование данных. Сложное подлежащее.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить пересказ текста, упр.1-3.

#### Topical vocabulary

encryption – шифрование

decryption – расшифровка

to encode = to encipher = расшифровывать

to scramble – шифровать, кодировать

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protective measures – меры защиты

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There are several standard symmetric key algorithms defined. Examples are AES, 3DES and Blowfish. These standard symmetric algorithms are proven to be highly secured and time tested. But the problem with these algorithms is the key exchange. The communicating parties require a shared secret, key, to be exchanged between them to have a secured communication. The security of the symmetric key algorithm depends on the secrecy of the key. Keys are typically hundreds of bits in length, depending on the algorithm used. Since there may be a number of intermediate points between the communicating parties through which the data passes, these keys cannot be exchanged online in a secured manner. In a large network, where there are hundreds of systems connected, offline key exchange seems too difficult and even unrealistic.

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A digital signature is a mathematical scheme for demonstrating the authenticity of an electronic message or document. A valid digital signature gives a recipient reason to believe that the message was created by a known sender, and that it was not altered in transit. If any the data or signature is modified, the signature verification fails.

The digital signature is simply a small block of data that is attached to documents you sign. It is generated from your digital ID (цифровой идентификатор), which includes both a private and public key. The private key is used to apply the signature to the document, while the public key is sent with the file. The public key contains encrypted code, also called a “**hash**”, that verifies your identity.

### **1. Выберите правильный вариант ответа.**

1. *The main problem with symmetric key algorithms is*

- a) the key length
- b) the key weakness
- c) the key exchange

2. *Public-key cryptography is also known as*

- a) symmetric cryptography
- b) asymmetric cryptography
- c) shared-key cryptography

3. *A message encrypted with the recipient's public key can only be decrypted with*

- a) the sender's private key
- b) the sender's public key
- c) the recipient's private key

4. *Symmetric-key algorithms are*

- a) as fast as asymmetric key algorithms
- b) hundreds to thousands times slower than asymmetric key algorithms
- c) hundreds to thousands times faster than asymmetric key algorithms

#### 5. A Digital Certificate is

- a) a small block of data that is attached to the documents you sign
- b) an electronic document which proves your identity when you are doing business on the Internet
- c) a program designed to prevent unauthorized access to the network by hackers

#### 6. A digital signature is a mathematical scheme for demonstrating

- a) the privacy of an electronic message or document
- b) the availability of an electronic message or document
- c) the authenticity of an electronic message or document

### 2. Переведите и найдите complex subject.

1. She is supposed to have been taken to hospital.
2. Things are sure to get better.
3. The book is bound to be remembered.
4. Some emotion seemed to be torturing him.
5. He seems to notice nothing unusual.
6. I happened to be standing at the window.
7. The picture proved to have been stolen.

### 3. Раскройте скобки

1. She smiled broadly and waved her hand. She seemed (to recognize) me.
2. Even if he is out you needn't worry. He is sure (to leave) the key under the door-mat.
3. At that time I happened (to work) at my first novel.
4. You won't be likely (to miss) the train if you start right away.
5. Don't cry! Everything is bound (to get) right between you.
6. She lost her head and seemed (to forget) the little English she knew.
7. A young woman is supposed (to write) this book.
8. You needn't mention it again. He is not likely (to forget) it.
9. He is believed (to teach) by his father.
- 10 You needn't tell me this. I happen (to give) all the details by Mother.

### Практическое занятие № 13.

**Тема:** Хакеры. Подготовка к зачету.

**Цель:** Введение и закрепление лексического и грамматического материала.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести слова, текст, ответить на вопросы.

#### Topical vocabulary

CEO (Chief Executive Officer) – главный исполнительный директор

cyberspace – киберпространство

misconception – неправильное представление

media – средства массовой информации

security flaws – слабые места в системе безопасности

it is note-worthy that... – стоит заметить, что...

legit – законный, честный

mature age – зрелый возраст

... claims to observe... – обязуется следовать (соблюдать)

to expose vulnerabilities – выявлять уязвимые места

...with the goal of disabling – с целью их повреждения или вывода  
or crippling them из строя  
ID – идентификатор  
underneath – ниже, внизу  
the most senior ID on the system – самый высокий по рангу ID в системе  
account – абонемент, учётная запись  
it is a very big challenge – это очень большой вызов (это невероятно азартно)  
to penetrate – проникать  
to avoid – избегать  
to keep ahead – держаться впереди, опережать  
callback system – система обратного (возвратного) вызова  
backup copies – резервные копии

## Hackers

### Interview: The Ex-Black Hat Hacker

Ralph Harris was one of two 18-year-olds arrested in the 2000s for hacking into a large American company. They got into the CEO's personal files and left a very rude message. He's grown up and has been putting his knowledge to very good use. He is now a computer security expert, a "white hat hacker" who uses his skills to make cyberspace safer.

**Interviewer** – Ralph, who exactly can be called a real computer hacker? To most users of English, the word "hacker" refers to computer criminals.

**Ralph** – Well, there is actually some misconception about what a real hacker is. Hackers are not criminals. In fact, "hacker" is a term of high praise in the developer community. Hacking computers is performed by one who knows computers very well – even the extra tricks of a computer and electronics. A hacker can be an expert computer programmer who creates complex software and hardware. These hackers are experts in the field of computing and have achieved a certain elite status within their field. Those who are often referred to as hackers today, should actually be called "crackers" – people who do not have an authorized access, like a safe-cracker.

**Interviewer** – A lot of people confuse the terms "hacker" and "cracker". I think there are two main reasons for this: firstly, crackers often call themselves "hackers" and secondly, the media refers to crackers as "hackers". But crackers are also known as black-hat hackers or dark-side hackers. Besides, there are such terms as "grey-hat hackers", "blue-hat hackers", "red-hat hackers" and others. Could you explain the difference between them?

**Ralph** – Yes, hackers are often divided into several categories or "classes" depending on what they do. A black-hat hacker is computing slang for a person who engages in illegal or malicious hacking. Black-hat hackers are computer crackers who break into computers and networks or also create computer viruses. The term "black-hat" comes from old westerns where the bad guys usually wore black hats and the good guys wore white ones. Thus, a white hat hacker is a computer hacker who intends to improve internet security. "White hats" break into systems or networks in order to help the owners of the system by making them aware of security flaws, or to perform some other altruistic activity. Many such people are employed by computer security companies; these professionals are sometimes called sneakers. Groups of these people are often called tiger teams.

**Interviewer** – Now you are one of these tigers, a security expert, though at some time you used to be a hacker... a black-hat hacker.

**Ralph** – It is note-worthy that many white hat hackers, such as Steve Jobs of Apple, Mark Zuckerberg of Facebook and other famous people were once black-hat hackers. Many black-hat hackers have gone legit in their more mature years. The primary difference between white and black hat hackers is that a white hat hacker claims to observe ethical principles. Grey hat hackers are the hackers that perform both malicious activities and helpful ones. They are part white hat and part black hat. Blue hat hackers are security professionals that are invited by Microsoft to expose vulnerabilities in Window products. Red hat hackers are an aggressive version of white hat hackers. They are employed by a government agency to hack into the computer mainframes of other governments with the goal of disabling or crippling them. A

green hat is a name for a new hacker, who is just starting to practice hacking. Green hat hackers are the beginners or freshers in hacking. Interviewer – It’s really interesting to hear all that. But can you tell us something about your personal history? I mean the time when you were a cracker. Once you broke into an American company’s system. How did you manage to get into the CEO’s personal files?

**Ralph** – I guessed some passwords and so on and because of various very silly mistakes the operators of the system made I managed to get right into the system at the highest level. What happened there was I got into part of the system that said: “Please enter your ID” and then underneath that on the same screen told you what the ID was. It was the most senior ID on the system so I typed it in. It said “You’re logged on as systems manager what would you like to do?” And I said “I’ll have some passwords please. And because I was logged on at the highest level it said “Whose do you want?” And I said “The CEO” because there was an account on the system in his name. And it gave it to me.

**Interviewer** – Why do people hack? What makes them start hacking?

**Ralph** – People sometimes hack for money, for criminal purposes or for political purposes. Most teenagers hack because it is exciting. It’s a very big challenge for a couple of 18-year-olds working on a basic PC to link directly to a very powerful machine they’ve completely penetrated.

**Interviewer** – Now you are helping companies to avoid people like you.

**Ralph** – Yes, if you want to protect your systems it’s a good idea to talk to people like myself rather than big city consultants... because I know the ways in which I would try to break into your system.

**Interviewer** – How can users avoid being hacked into?

**Ralph** – There’s a lot you can do but first of all you have to keep ahead of the crackers. Well, you can install firewalls to restrict access to a network. You can have a callback system to make sure remote clients are who they say they are. Having really secure passwords helps. Don’t use a common name or a dictionary word or anything short. Check the system regularly using event logs to find failed access attempts. Make backup copies of your files regularly. Use a digital certificate when you are doing business on the Internet. Avoid giving credit card numbers. Companies and organizations should hire highly qualified security specialists to protect their computer networks.

### **1. Ответьте на вопросы.**

1. What was Ralph Harris arrested for in the 2000s? What is he now?
2. According to Ralph, who can be called a real computer hacker”? Do you agree with his point of view?
3. Why do people confuse the terms “hacker” and “cracker”?
4. What is a “black hat hacker”? Explain why black hat hackers are called computer criminals.
5. How does Ralph characterize white hat hackers? What is the principal difference between white hat and black hat hackers?
6. Where do the terms “black hat” and “white hat” come from?
7. Differentiate between grey hat, blue hat, red hat and green hat hackers.
8. How did Ralph manage to get into the American company’s files?
9. According to Ralph, why do people hack?
10. Why does he say companies should use his services?
11. What should people do to prevent hacking?

### **Практическое занятие № 14.**

**Тема:** Хакеры. Подготовка к зачету.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести текст, упр.2.

### **1. Прочитайте и переведите текст.**

#### **It Takes a Thief to Catch a Thief**

Every year more and more computer networks are coming under attack and day by day these attacks are getting stronger. When most companies try to defend their networks they are always on the defensive



side of the pitch (поле, площадка). Although defense wins Superbowls, it does not cut it in the world of cyber security – it is the equivalent of putting a band aid on the person instead of them getting surgery.

There need to be new ways that a company can defend their networks from outside attacks. One way is to hire reformed black hat hackers to defend the company's networks. Yes, there is a level of danger when someone does this but when it works, it really does seem to be the right solution.

Probably everybody who reads this has heard of the old saying, "don't leave a fox to guard the hen house", or something similar. This is an old American saying but sometimes the moral of the story is not true in every situation. Sometimes it takes (требуется) a thief to catch a thief.

There are some computer security firms that hire ex-black hat hackers to come to work for them. Who better to show them the tricks of the underground than some of the people who have successfully used these very same tricks. Who would know the mind of a hacker better than them? Somebody who has the natural skills to be a world class hacker and someone who has to be trained to be one are in two different leagues. Having one who has turned away from the dark side to be with the good guys may be a good catch.

Anyone who has either worked in or at least follows the computer security field knows about the famous hacker known as Kevin Mitnick. Kevin Mitnick, the world's most wanted computer hacker, managed to hack into some of the country's most powerful – and seemingly impenetrable – agencies and companies. He managed to gain access to data that no one else could. He was finally caught and thrown into jail for several years. At the time of his arrest, he was the most wanted computer criminal in the United States.

He is now out of jail and he has found his place in regular society as a computer security consultant. His services are always in demand and he is considered one of the top people in his field. This is an example of someone who went down the wrong path and then turned their life around.

## **2. Выберите утверждение, которое вам подходит.**

1. I'm sure the old saying, "don't leave a fox to guard the hen house" is quite correct when we mean ex-black hat hackers pretending to work as security specialists for different organizations. Companies should not hire people who used to be computer criminals because.....
2. I think it's true that sometimes it takes a thief to catch a thief. Companies should hire ex-black hat hackers to defend their networks because...

## **Практическое занятие № 15.**

**Тема:** Контрольная работа.

**Цель:** Контроль лексических и грамматических навыков, словарного запаса обучающихся.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

### **Тест**

1. Выберите нужную форму инфинитива или причастия  
We can't help laughing looking at them
  - a) не можем не смеяться
  - b) не можем не улыбаться
  - c) не можем не насмехаться
2. Выберите нужную форму инфинитива или причастия  
They were happy ... in our expedition
  - a) take part
  - b) to take part
  - c) be taking
  - d) to taken part
3. Выберите нужную форму инфинитива Simple Active or Passive:  
The letter was ... at once.
  - a) to send

- b) to sent
- c) sended
- d) to be sent

4. Измените местоимение в общем падеже на местоимение в объективном падеже:

He made (we) do the work again.

5. Отметьте правильные ответы

Укажите номера предложений, где необходимо поставить частицу -to- перед инфинитивом:

- 1) I like ... play the piano.
- 2) They wanted to cross the river.
- 3) He did want... play in the street.
- 4) I shall ...do all.
- 5) I saw him ... enter the room.
- 6) She was planning ... do a lot of things yesterday.
- 7) Do you like ... listen to good music?
- 8) Her brother can ... speak French.
- 9) It is time ... go to bed.
- 10) May I ... use your telephone?

6. Выберите правильный вариант перевода предложения:

She heard him open the door.

- a) она слышала, как он отпирал дверь
- b) она услышала его шаги
- c) она слышит, как он открывает дверь

7. Выберите нужную форму инфинитива Simple Active or Passive:

Mother was too tired to ... supper

- a) to cook
- b) to be cook
- c) to be cooked
- d) to be cooking

8. Выберите правильный вариант перевода предложения:

He made us do the work again.

- a) он попросил нас сделать работу
- b) он заставил нас сделать работу снова
- c) он заставляет нас сделать работу снова

9. Измените местоимение в общем падеже на местоимение в объективном падеже:

I would like (you) to offer Pete your help.

10. Выберите правильный вариант перевода предложения:

I would like you to offer Pete your help.

- a) мне бы хотелось помочь Петру
- b) мне нравится помогать Петру
- c) мне бы хотелось, чтобы вы предложили Петру свою помощь

11. Выберите нужную форму инфинитива или причастия

He made me ... it. .

- a) did
- b) do
- c) to do
- d) doing

12. Измените местоимение в общем падеже на местоимение в объективном падеже:

Let (he) smoke here.

13. Выберите нужную форму инфинитива Simple Active or Passive:

He was the first ... to the finish.

- a) to came
- b) to come
- c) to be come
- d) to have been come

14. Выберите нужную форму инфинитива или причастия

It's very different ... a car in a big city

- a) driven
- b) drove
- c) to be driven
- d) to drive

15. Выберите нужную форму инфинитива Simple Active or Passive:

They were happy ... at home.

- a) to leave
- b) to be leave
- c) to be left
- d) to leaving

16. Выберите нужную форму инфинитива Simple Active or Passive:

I have come here to ... to you.

- a) to be talked
- b) to talk
- c) to talked
- d) to be talking

17. Выберите нужную форму инфинитива или причастия

Would you like me ... now?

- a) read
- b) to read
- c) to reading

18. Выберите нужную форму инфинитива или причастия

I let him ... late

- a) go
- b) going
- c) went
- d) to go

19. Измените местоимение в общем падеже на местоимение в объектном падеже:

I want (he) to go to food fair.

20. Измените местоимение в общем падеже на местоимение в объектном падеже:

He would like (she) to play with him.

21. Выберите правильный вариант перевода предложения:

We expect him to sign the contract on Monday.

- a) мы рассчитываем подписать контракт в понедельник
- b) мы хотим, чтобы он подписал контракт в понедельник
- c) мы ожидаем, что он подпишет контракт в понедельник

22. Измените местоимение в общем падеже на местоимение в объектном падеже:

We expect (he) to do It.

23. Выберите нужную форму инфинитива или причастия

The child wanted ... seriously

- a) to be taken
- b) to take

- c) to took
- d) to be take

24. Измените местоимение в общем падеже на местоимение в объектном падеже:  
Let (we) read.

25. Измените местоимение в общем падеже на местоимение в объектном падеже:  
Bad weather made (they) return home.

26. Выберите правильный вариант перевода предложения:  
They would like us to learn English.

- a) им нравится учить английский
- b) они хотели бы, чтобы мы учили английский
- c) они любят учить нас английскому

27. Выберите правильный вариант перевода предложения:  
Let him smoke.

- a) пусть он курит
- b) пусть она курит
- c) заставьте его курить

28. Выберите правильный вариант перевода предложения:  
She saw the postman climbing up the stairs.

- a) она видела почтальона
- b) она видела, как почтальон поднимался по лестнице

### Практическое занятие № 16.

**Тема:** Дифференцированный зачет.

**Цель:** Контроль умений и навыков практического владения английским языком.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

#### Контрольные задания к дифференцированному зачету

Лексические темы	Грамматические темы
1.Интернет.	3.Инфинитив
2.Компьютерные преступления.	4.Сложное дополнение

#### Вариант I

**1.Прочитайте и переведите текст, выполните задания к тексту.**

#### THE INTERNET, THE INTRANET, AND NETWORKS

We live in a rapidly changing information society – that is, a society in which large groups of workers generate or depend on information to perform their jobs. The need for more and better information will only continue to grow. Information technology (IT) relates to processes and applications that create new methods to solve problems, perform tasks, and manage communication. Simply put, Information technology is the use of computers and software to manage information. Information technology plays a major role in the 21st century world; today, our economic productivity is based more on technology than on any other advance. IT has resulted in social issues related to privacy, intellectual property, and quality of life. Just a few decades ago computers were considered exotic curiosities, used only by scientists and the military. Today, they have become indispensable not only to businesses but to common people as well. Who can imagine daily life without sending e-mails to friends, booking airline tickets over the Internet, or preparing reports with word processing program?

The Internet has profoundly changed the way people communicate, learn, do business, and find entertainment. Although many people believe the Internet began in the early 1990s, its origins can actually be traced to the late 1950s. Over the past decades, the network evolved from a system for government and

university researchers into a tool used by millions around the globe for communication, information, entertainment, and e-business.

The Internet is an International computer Network made up of thousands of networks linked together. All these computers communicate with one another; they share data, resources, transfer information, etc. To do it they need to use the same language or protocol: TCP / IP (Transmission Control Protocol / Internet Protocol) and every computer is given an address or IP number. This number is a way to identify the computer on the Internet.

The Internet's most commonly used network for finding information is the World Wide Web (or more simply, the Web. The Web is a collection of interconnected Web sites or "pages" of text, graphics, audio and video within the Internet. To get on the Internet, you need a computer, a modem, and an Internet service provider (ISP). The modem (modulator-demodulator) converts the digital signals that can be transmitted over telephone lines. Internet service providers provide customers with a connection to the Internet through various phone plugs and cables. Today, connections to the Internet include simple telephone lines (a dial-up telephone connection) or faster digital subscriber lines (DSLs) and cable broadband that carry larger amounts of data at quicker transfer speeds.

Broadband technology is a general term referring to higher speed Internet connections that deliver data, voice, and video material. Broadband technology combines digital, fiber-optic, and wireless network technologies that compress data and transmit them at blinding speeds. And with new wireless technology, it is possible to access the Internet by using your laptop computer, cellular phone, and other wireless communications devices.

The most popular wireless network currently is Wi-Fi. Wi-Fi – short for *wireless fidelity* – is a wireless network that connects various devices and allows them to communicate with one another through radio waves. Wi-Fi allows high-speed wireless Internet connections when linked to a specially equipped modem. In the not-too-distant future, experts expect Wi-Fi to link all sorts of devices – not just computers, but lamps, stereos, appliances, and more – and to fully integrate the Internet into our lives. The basic equipment has changed drastically in the last few years. You may no longer need a computer to use the Internet. New Generation mobile phones and PDAs, personal digital assistants, also allow you to go online with wireless connections, without cables. Telephone lines are not essential either. Satellites orbiting the Earth enable your computer to send and receive Internet files. Finally, the power-line Internet, still under development, provides access via a power plug.

An intranet is a smaller version of the Internet for use within an organization. Using a series of customized Web pages, employees can quickly find information about their firm as well as connect to external sources. Intranets limit access only to employees or other authorized users. Generally, intranet sites are protected, and users must supply both a user name and a password to gain access to a company's intranet site. Some firms open up their intranets to other selected users through an extranet, a network of computers that permits selected companies and organizations to access the same information. An extranet allows users to share data, process orders, and manage information.

Both the Internet and intranets are examples of a computer network. Today, two basic types of networks affect the way people obtain data and information. A wide-area network (WAN) is a network that connects computers over a large geographic area. The world's most popular WAN is the Internet. A local-area network (LAN) is a network that connects computers that are in close proximity to each other, such as an office building or a college campus.

Most networks are linked with cables or wires but new Wi-Fi, wireless fidelity, technologies allow the creation of WLANs, where cables or wires are replaced by radio waves.

## **2. Выберите правильный вариант ответа:**

1. Information technology relates to processes and applications that create new methods *to send sounds and signals through space by means of electromagnetic waves / to solve problems, perform tasks, and manage communication.*
2. Simply put, Information technology is the use of computers and software to manage *the information society / information systems / information.*

3. IT plays a *major / secondary* role in the 21st century world; our economic productivity is based *less / more* on technology than on any other advance.
4. The IP number is the abbreviation for *Internet Provider number / Internet Protocol number / Intel Processor number*.
5. Although most of us think that the Internet began in the early 1990s, its origins can actually be traced to *the late 1930s / the late 1940s / the late 1950s*.
6. *The Internet / the World Wide Web* is the global information system that links many computer networks together.
7. A collection of interconnected files or pages of audio, visual, and text data within the Internet is known as *Telnet / DSL / the Web*.
8. The modem *converts* the *different sounds / digital signals* that can be *transported / transmitted* over *telephone lines / TV cables*.
9. Simple telephone lines carry *smaller / larger* amounts of data at *quicker / slower* transfer speeds than DSLs and cable broadband.
10. Wi-Fi – short for *wired fidelity / wireless fidelity* – is a *wireless / wired* network that connects various devices and allows them to communicate with one another through *radio waves / telephone lines*.

### 3. Ответьте на вопросы.

1. What is information technology? What role does information technology play in the 21st century world?
2. How has the evolution of the Internet affected the world?
3. What connections to the Internet are available nowadays?
3. Characterize broadband technology.
4. What is Wi-Fi?
5. What is an intranet? An extranet? How are they used?
6. Distinguish between WAN and LAN.
7. Explain what WLANS are.

### 4. Вставьте частицу to где это необходимо:

1. I like ... play the guitar.
2. My brother can ... speak French.
3. We had ... put on our overcoats because it was cold.
4. They wanted ... cross the river.
5. It is high time for you ... go to bed.
6. May I ... use your, telephone?
7. They heard the girl ... cry out with joy.

### 5. Замените выделенные части предложений инфинитивными оборотами:

Образец: *The boy had many toys which he could play with.*

*The boy had many toys to play with.*

1. I have no books **which I can read**.
2. Is there anybody **who will help you with your spelling**?
3. Don't forget that she has a baby **which she must take care of**.
4. Have you got nothing **that you want to say** on this subject?
5. There was nothing **that he could do** except go home.
6. I have only a few minutes **in which I can explain these words to you**.
7. I have an examination **which I must take soon**, so I can't go the theatre with you

## Вариант II

### 1. Прочитайте и переведите текст, выполните задания к тексту.

## PROTECTING INFORMATION SYSTEMS: COMPUTER CRIME

As information systems become increasingly important business assets, they also become progressively harder to replace. When computers are connected to a network, a problem at any location can affect the entire work. Perhaps the most significant problem businesses face as a result of computer technology is information security. **Information security** means protecting information and information systems from unauthorized access, use, disclosure, disruption, modification, inspection, recording or destruction. There are three important security threats that may damage information systems: **computer crime, viruses, and disasters.**

### COMPUTER CRIME

Computers provide efficient ways for people to share information. But they may also allow people with more malicious intentions to access information. Or they may allow **crackers**, or **black hat hackers** – computer criminals who use technology to perform a variety of crimes – to gain access to classified information. Common computer crimes involve stealing or altering data in several ways:

Employees or outsiders may change or invent data to produce inaccurate or misleading information.

Employees or outsiders may modify computer programs to create false information or illegal transactions or to insert viruses.

Unauthorized people can access computer systems for their own illicit benefit or knowledge or just to see if they can get it.

Computer crime is on the rise. The number of violations of Internet security as reported to the Computer Emergency Response Team Coordination Center, located on the Web at <http://www.cert.org>, has risen sharply in recent years. In 1990, only six incidents were reported. Recently, the number of reported incidents soared to over 82,000. Of course, the statistics don't include the number of incidents that were not reported, so the total is probably much higher.

Internet-based crimes include **scam**, email fraud to obtain money or valuables, and **phishing**, bank fraud, to get banking information such as passwords of Internet bank accounts or credit card details. Both crimes use emails or websites that look like those of real organizations. **Piracy**, the illegal copying and distribution of copyrighted software, information, music, and video files, is widespread.

Individuals, businesses, and government agencies are all vulnerable to computer crime. Computer hackers sometimes work alone and sometimes in groups. One pair of hackers, nicknamed the "Deceptive Duo", once claimed that they hacked into Midwest Express Airlines' intranet. In an email to several news organizations, the hackers said that their goal was to embarrass the airline and show how easy it is to gain access to supposedly secure networks. The hackers even posted evidence of their break-in on the Web site of the U.S. Space and Naval War Systems Command. In one recent case, Russian hackers broke into Citibank's network and electronically stole \$10 million.

Companies with valuable or sensitive information stored in a computer worry about competitors or thieves raiding the database simply by dialing in through a modem. Even firms that don't share their databases are subject to security breaches. In recent years U.S. corporations have spent more than \$10 billion annually on network security. Even so, the estimated annual cost of computer crime is as high as \$15 billion. The entire U.S. electronic infrastructure, including banks, financial markets, transportation systems, power grids, and telecommunication systems, could be vulnerable to attack. Companies and organizations must take strong precautions to protect themselves.

System administrators implement two basic protections against computer crime: They try to prevent access to their systems by unauthorized users and the viewing of data by unauthorized system users. To prevent access, the simplest method requires authorized users to enter passwords. An intranet blocks outsiders without valid passwords from entering its network by incorporating software known as a **firewall**. Firewalls limit data transfers to certain locations and log system use so managers can identify attempts to log on with invalid passwords and other threats to system security.

To prevent system users from reading sensitive information, the company may use encryption software, which encodes, or scrambles, messages. Information security uses **cryptography** to transform information into a form that renders it unusable by anyone other than an authorized user; this process is called **encryption**. To read encrypted messages, users must use a key to convert them to regular text.

Information that has been encrypted (rendered unusable) can be transformed back into its original usable form by an authorized user, who possesses the cryptographic key, through the process of **decryption**. The length and strength of the cryptographic key is an important consideration. A key that is weak or too short will produce weak encryption. More than one key can be used to encrypt and decrypt sensitive information. The keys used for encryption and decryption must be protected from disclosure and destruction and they must be available when needed. Cryptography is used in information security to protect information from unauthorized or accidental disclosure while the information is in transit and while information is in storage. But as fast as software developers invent new and more elaborate protective measures, hackers seem to break through their defenses. So security is an ongoing battle.

## **2. Верно или неверно?**

*Пример: In my opinion it is true that... / To my mind it is false that ... because...*

1. The growth of information technology and the Internet has resulted in such a significant problem as information security.
2. There are two important security threats that may damage information systems: computer crime and viruses.
3. Crackers, or black hat hackers, are computer criminals who use technology to perform various crimes.
4. The number of violations of Internet security has fallen sharply in recent years.
5. Internet-based crimes include phishing, email fraud to obtain money or valuables, and scam, bank fraud, to get banking information.
6. Computer technology is widely used to pirate copyrighted works such as films and music.
7. Nowadays all organizations are vulnerable to computer crime.
8. Sometimes hackers want to show how easy it is to gain access to supposedly secure networks.
9. The firms that don't share their databases are completely protected against security breaches.
10. U.S. corporations seldom spend money on network security though the estimated annual cost of computer crime is as high as \$15 billion.

## **3. Ответьте на вопросы.**

1. Name the most significant problem that businesses and organizations face as a result of computer technology.
2. What is information security?
3. Identify the three important threats that may damage information systems.
4. Explain the term "black hat hacker".
5. What do common computer crimes involve?
6. What do Internet-based crimes include? Explain the terms "scam", "phishing" and "piracy".
7. Why must companies and organizations take strong precautions to protect themselves?
8. What basic protections do system administrators implement against computer crime?
9. Explain how firewalls work.
10. What is cryptography used for? Describe the processes of encryption and decryption.
11. Why is it said that security is an ongoing battle

## **4. Переведите на русский язык:**

1. Everybody expected her to marry Nick.
2. I would-like them to come as soon as possible.
3. I expect you t join us.
4. I don't want to see you in this company
5. We would like you to visit us.
6. I hate you to play the piano.
7. My mother wants me to study better.

## **5. Перефразируйте предложения по образцу:**



*Образец:      The boy was playing football in the yard (see).  
                     We saw the boy play football in the yard.*

1. They came back at once (make).
2. You must do it yourself (want).
3. The boy said something in a low voice (hear).
4. She is waiting for Mary (believe).
5. He is a very talented actor (know).
6. My son is going to become a surgeon (want).
7. The girl was singing a very lovely song (hear).

## 4 КУРС 7 СЕМЕСТР ВИРУСЫ

### Практическое занятие № 1.

**Тема:** Вирусы. Причастие I.

**Цель:** Введение и закрепление лексического и грамматического материала.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести слова, текст, упр.1-3.

#### Topical vocabulary

computer virus – компьютерный вирус

hidden program – скрытая программа

to erase data – стереть данные

to corrupt data – повреждать данные

to attach – прикреплять; подключать

host – хост – общий термин, описывающий нечто, содержащее ресурс и предоставляющее к нему доступ

host program – главная (основная) программа

dormant – бездействующий, неактивный

infection – заражение

to infect – заражать, инфицировать

to reproduce – воспроизводить

to copy – копировать

electronic bulletin board – электронная доска объявлений

to download programs or data – загружать (скачивать) программы или данные

logic bomb – логическая бомба

to trigger – запускать, приводить в действие

boot sector virus – вирус сектора загрузки

file virus – вирус, заражающий файл (добавляющий себя к содержимому файла)

macro virus – макровирус (распространяемый через макрокоманды)

scripting language – скриптовый язык, язык подготовки сценариев

email virus – почтовый вирус (передаваемый по электронной почте)

spreadsheet – электронная таблица

victim – жертва

companion virus – сопутствующий вирус, вирус-компаньон

to execute a program – выполнять программу

cross-site scripting virus – межсайтовый скриптовый вирус

to replicate – тиражировать, копировать

polymorphic virus – полиморфный (самоизменяющийся) вирус

Trojan horse – троянский конь, троянская программа

worm – червь

impostor files – обманные файлы

to insert a code – вставлять программу

backdoor – «чёрный ход», доступ с чёрного хода

by exploiting security flaws – используя изъяны в системе безопасности

true computer viruses – истинные вирусы

self-contained – самостоятельный; самодостаточный

adware – адвэр; бесплатный программный продукт с размещённой в нём рекламой

subset – подгруппа

malware – вредоносная программа

sophistication – изощрённость; сложность

antivirus software program – антивирусная программа

to eliminate – устранять, ликвидировать

to spot – опознавать, обнаруживать

to update – обновлять

to emphasize security – придавать особое значение обеспечению безопасности

Web gateways – Интернет-шлюзы

attachments to email – вложения в электронном письме

## PROTECTING INFORMATION SYSTEMS: COMPUTER VIRUSES

Another critical security challenge is presented by **computer viruses**, hidden programs that can work their way into computer systems and erase or corrupt data and programs. Viruses are programs that secretly attach themselves to other programs or files, known as the **host**, and change them or destroy data. Viruses can be programmed to become active immediately or to remain dormant for a period of time, after which the infections suddenly activate themselves and cause problems.

A virus can reproduce by copying itself onto other programs stored in the same drive. It spreads as users install infected software on their systems or exchange files with others, usually by exchanging email, accessing electronic bulletin boards, trading disks, or downloading programs or data from unknown sources on the Internet. Because so many computers are interconnected, viruses can spread quickly, infecting all the computers linked on a local area network and then spreading over the Internet to other computers and networks. The Melissa virus infected 350,000 computers in the United States and Europe. The Mydoom virus infected a quarter-million computers in a single day in January 2004. The so-called “Love Bug” virus alone caused an estimated \$15 billion in damage. Viruses can do more damage today than ever before and cost organizations billions of dollars each year. Most viruses are created by black-hat hackers and involve outright vandalism or crime.

Each virus is given a name e.g. “Love Bug” or “Melissa” and can be classified as a particular type of virus. The main virus types include:

**logic bombs** that destroy data when triggered

**boot sector viruses** that store themselves in the boot sector of a disk

**file viruses** that attach themselves to COM files (programs that have a COM extension e.g. command.com)

**macro viruses**, often written in the scripting languages for Microsoft programs such as Word or Excel, are spread in Microsoft Office by infecting documents and spreadsheets

**email viruses** which use email messages as a mode of transport and copy themselves by automatically mailing copies to hundreds of people in the victim’s address book

**companion viruses** that instead of modifying an existing file, create a new program which is executed instead of the intended program

**cross-site scripting viruses** that utilize cross-site scripting vulnerabilities to replicate

**polymorphic viruses** that not only replicate themselves by creating multiple files of themselves, but also change their digital signature every time they replicate

Two other types of malware – **Trojan horses** and **worms** – are often classified as viruses, but are actually forms of distributing malware.

**Trojan horses** are impostor files that claim to be something desirable but, in fact, are malicious. A Trojan horse appears to do one thing (install a screen saver, or show a picture inside an email for example) when in fact it does something entirely different, and potentially malicious, such as erase files. Trojans can also open backdoors so that computer hackers can gain access to passwords and other personal information stored on a computer. Trojans don’t copy themselves or reproduce by infecting other files.

**Worms** are self-copying programs that have the capacity to move from one computer to another without human help, by exploiting security flaws in computer networks. Worms are self-contained and don’t need to be attached to a document or program the way viruses do. It is note-worthy that different types of malicious software (worms, Trojan horses, adware, spyware, etc.) are generally referred to as viruses though true computer viruses make up only a small subset of malware. For example,

“ILOVEYOU” (“Love Bug”) or “Melissa” are two examples of worms.

As viruses become more complex, the technology to fight them must increase in sophistication as well. The simplest way to protect against computer viruses is to install one of the many available antivirus software programs, such as Norton Anti-Virus and McAfee Virus Scan. There is no way to entirely stop the spread of computer viruses, because new ones are created all the time. However, a number of excellent “vaccine” programs exist that search for and destroy viruses and prevent new ones from infecting your computer system.

These programs continuously monitor systems for viruses and automatically eliminate any they spot. Anti-virus and anti-malware programs can provide real-time protection against the installation of malware on a computer. The software scans disk files at download time, and blocks the activity of components known to represent malware. Users should regularly update antivirus software programs by going online to download the latest virus definitions.

But management must begin to emphasize security at a deeper level: in software design, corporate servers, Web gateways, and Internet service providers. Because around 80 percent of the world’s PCs run on Microsoft operating systems, a single virus can spread quickly among them. Computer users should carefully choose the files they load onto their systems, scan their systems regularly, make sure their antivirus software is up-to-date, and install software only from known sources. They should also be very careful when opening attachments to emails, since this is the way many viruses are spread.

**1. Выберите правильный вариант ответа.**

1. *A computer virus is*

- a) the name given to unwanted messages, mainly commercial advertising
- b) a visible program which accidentally attaches itself to other programs and can be easily deleted by the user
- c) a hidden program which secretly attaches itself to other programs and changes them or destroys data

2. *Viruses are programmed*

- a) to activate themselves immediately after the infected software has been installed
- b) to remain dormant for a certain period of time
- c) either to become active immediately or to remain dormant for a period of time

3. *True computer viruses include*

- a) macro viruses, email viruses, and worms
- b) macro viruses, email viruses, and logic bombs
- c) Trojans and worms

4. *A logic bomb is a virus*

- a) which is set to trigger when specific conditions are met
- b) which is spread in Microsoft Office by infecting documents and spreadsheets
- c) which uses email messages as a mode of transport

5. *One of the most dangerous viruses is a virus that changes its digital signature every time it replicates. Such viruses are very difficult to detect. They are called*

- a) macro viruses
- b) micro viruses
- c) polymorphic viruses

6. *A program that can open a backdoor to the computer so that crackers can gain access to sensitive information is known as*

- a) a worm
- b) a Trojan horse

c) an adware

7. *Programs that replicate themselves from system to system without the use of a host file are known as*

- a) worms
- b) Trojans
- c) true viruses

8. *Unlike viruses, worms don't need to be attached to a document or program as they are*

- a) self-confident
- b) self-controlled
- c) self-contained

9. *Love Bug, Mydoom and Melissa are the examples of*

- a) true viruses
- b) worms
- c) Trojans

10. *The main difference between the terms "viruses" and "malware" is that*

- a) viruses are much more dangerous than other types of malware
- b) all other types of malware are much more dangerous than viruses
- c) all viruses are malwares but not all malwares are viruses

11. *The simplest way to protect against computer viruses is*

- a) to have no computer at all
- b) to monitor access 24 hours a day
- c) to use reliable and up-to-date anti-virus and anti-malware software

**2. Переведите на русский язык, обращая внимание на причастия настоящего времени.**

- 1. The girl standing at the window is my sister.
- 2. Having been sent to the wrong address the letter didn't reach him.
- 3. He sat in the arm-chair thinking.
- 4. She came up to us breathing heavily.
- 5. The hall was full of laughing people.
- 6. The singing girl was about fourteen.
- 7. Having read the book I gave it to Pete.
- 8. The large building being built in our street is a new school – house.
- 9. Having finished the experiment the students left the laboratory.
- 10. Being busy, he postponed his trip.

**3. Выберите из скобок требующуюся форму Причастия I:**

- 1. a) The girl (writing, written) on the blackboard is our best pupil.  
b) Everything (writing, written) here is quite right.
- 2. a) The house (surrounding, surrounded) by tall trees is very beautiful.  
b) The wall (surrounding, surrounded) the house was very high.
- 3. a) Who is that boy (doing, done) his homework at that table?  
b) The exercises (doing, done) by the pupils were easy.
- 4. a) The girl (washing, washed) the floor is my sister.  
b) The floor (washing, washed) by Helen looked very clean.

**Практическое занятие № 2.**

**Тема:** Вирусы. Причастие I.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Ответить на вопросы, упр.2-3.

### **Topical vocabulary**

computer virus – компьютерный вирус

hidden program – скрытая программа

to erase data – стереть данные

to corrupt data – повреждать данные

to attach – прикреплять; подключать

host – хост – общий термин, описывающий нечто, содержащее ресурс и предоставляющее к нему доступ

host program – главная (основная) программа

dormant – бездействующий, неактивный

infection – заражение

to infect – заражать, инфицировать

to reproduce – воспроизводить

to copy – копировать

electronic bulletin board – электронная доска объявлений

to download programs or data – загружать (скачивать) программы или данные

logic bomb – логическая бомба

to trigger – запускать, приводить в действие

boot sector virus – вирус сектора загрузки

file virus – вирус, заражающий файл (добавляющий себя к содержимому файла)

macro virus – макровирус (распространяемый через макрокоманды)

scripting language – скриптовый язык, язык подготовки сценариев

email virus – почтовый вирус (передаваемый по электронной почте)

spreadsheet – электронная таблица

victim – жертва

companion virus – сопутствующий вирус, вирус-компаньон

to execute a program – выполнять программу

cross-site scripting virus – межсайтовый скриптинг-вирус

to replicate – тиражировать, копировать

polymorphic virus – полиморфный (самоизменяющийся) вирус

Trojan horse – троянский конь, троянская программа

worm – червь

impostor files – обманные файлы

to insert a code – вставлять программу

backdoor – «чёрный ход», доступ с чёрного хода

by exploiting security flaws – используя изъяны в системе безопасности

true computer viruses – истинные вирусы

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sophistication – изощрённость; сложность

antivirus software program – антивирусная программа

to eliminate – устранять, ликвидировать

to spot – опознавать, обнаруживать

to update – обновлять

to emphasize security – придавать особое значение обеспечению безопасности

## PROTECTING INFORMATION SYSTEMS: COMPUTER VIRUSES

Another critical security challenge is presented by **computer viruses**, hidden programs that can work their way into computer systems and erase or corrupt data and programs. Viruses are programs that secretly attach themselves to other programs or files, known as the **host**, and change them or destroy data. Viruses can be programmed to become active immediately or to remain dormant for a period of time, after which the infections suddenly activate themselves and cause problems.

A virus can reproduce by copying itself onto other programs stored in the same drive. It spreads as users install infected software on their systems or exchange files with others, usually by exchanging email, accessing electronic bulletin boards, trading disks, or downloading programs or data from unknown sources on the Internet. Because so many computers are interconnected, viruses can spread quickly, infecting all the computers linked on a local area network and then spreading over the Internet to other computers and networks. The Melissa virus infected 350,000 computers in the United States and Europe. The Mydoom virus infected a quarter-million computers in a single day in January 2004. The so-called “Love Bug” virus alone caused an estimated \$15 billion in damage. Viruses can do more damage today than ever before and cost organizations billions of dollars each year. Most viruses are created by black-hat hackers and involve outright vandalism or crime.

Each virus is given a name e.g. “Love Bug” or “Melissa” and can be classified as a particular type of virus. The main virus types include:

**logic bombs** that destroy data when triggered

**boot sector viruses** that store themselves in the boot sector of a disk

**file viruses** that attach themselves to COM files (programs that have a COM extension e.g. command.com)

**macro viruses**, often written in the scripting languages for Microsoft programs such as Word or Excel, are spread in Microsoft Office by infecting documents and spreadsheets

**email viruses** which use email messages as a mode of transport and copy themselves by automatically mailing copies to hundreds of people in the victim’s address book

**companion viruses** that instead of modifying an existing file, create a new program which is executed instead of the intended program

**cross-site scripting viruses** that utilize cross-site scripting vulnerabilities to replicate

**polymorphic viruses** that not only replicate themselves by creating multiple files of themselves, but also change their digital signature every time they replicate

Two other types of malware – **Trojan horses** and **worms** – are often classified as viruses, but are actually forms of distributing malware.

**Trojan horses** are impostor files that claim to be something desirable but, in fact, are malicious. A Trojan horse appears to do one thing (install a screen saver, or show a picture inside an email for example) when in fact it does something entirely different, and potentially malicious, such as erase files. Trojans can also open backdoors so that computer hackers can gain access to passwords and other personal information stored on a computer. Trojans don’t copy themselves or reproduce by infecting other files.

**Worms** are self-copying programs that have the capacity to move from one computer to another without human help, by exploiting security flaws in computer networks. Worms are self-contained and don’t need to be attached to a document or program the way viruses do. It is note-worthy that different types of malicious software (worms, Trojan horses, adware, spyware, etc.) are generally referred to as viruses though true computer viruses make up only a small subset of malware. For example, “ILOVEYOU” (“Love Bug”) or “Melissa” are two examples of worms.

As viruses become more complex, the technology to fight them must increase in sophistication as well. The simplest way to protect against computer viruses is to install one of the many available antivirus software programs, such as Norton Anti-Virus and McAfee Virus Scan. There is no way to

entirely stop the spread of computer viruses, because new ones are created all the time. However, a number of excellent “vaccine” programs exist that search for and destroy viruses and prevent new ones from infecting your computer system.

These programs continuously monitor systems for viruses and automatically eliminate any they spot. Anti-virus and anti-malware programs can provide real-time protection against the installation of malware on a computer. The software scans disk files at download time, and blocks the activity of components known to represent malware. Users should regularly update antivirus software programs by going online to download the latest virus definitions.

But management must begin to emphasize security at a deeper level: in software design, corporate servers, Web gateways, and Internet service providers. Because around 80 percent of the world’s PCs run on Microsoft operating systems, a single virus can spread quickly among them. Computer users should carefully choose the files they load onto their systems, scan their systems regularly, make sure their antivirus software is up-to-date, and install software only from known sources. They should also be very careful when opening attachments to emails, since this is the way many viruses are spread.

### **1. Ответьте на вопросы.**

1. What is a computer virus? How does a computer virus work?
2. What are the ways viruses spread? Why can viruses spread so quickly?
3. Name some of the famous viruses used to spread worldwide.
4. Enumerate the main types of true viruses. Which of the virus types given in the text do you think to be the most dangerous and why?
5. Describe a malicious program called “a Trojan horse”.
6. Explain what a computer worm is.
7. How do Trojans and worms differ from true viruses?
8. How do “vaccine” anti-virus programs work?
9. What is real-time protection provided by anti-virus and anti-malware programs?
10. Name the main steps individuals and organizations should take to prevent viruses.

### **2. Раскройте скобки, употребив причастие настоящего времени в активной и пассивной форме.**

1. (To impress) by the film, they kept silent.
2. (To lose) the book, the student couldn’t remember the topic.
3. He spent the whole day (to read) a book.
4. (To travel) around America for a month, she returned to England.
5. He watched Mike (to go) out of the door and (to cross) the street.
6. The question (to discuss) now is very important.
7. (To pack) in the beautiful box the flowers looked very lovely.
8. (To descent) the mountains, they heard a man calling for help.
9. (To reject) by everybody he became a monk.
10. (To show) the wrong direction, the travelers soon lost their way.

### **3. Раскройте скобки, употребив Indefinite или Perfect Participle I. Переведите.**

1. (To write) out all the words, I started to learn them.
2. (To buy) food, they left supermarket.
3. (to bark) dog doesn’t bite.
4. She entered the room (to smile).
5. (To drink) coffee she was talking to her friend.
6. (To find) the keys, we were able to open the door.
7. (To make) the report, Tom left the room.
8. (To see) her he raised his hat.
9. My task (to finish), I went to bed.
10. While (to learn) the pronunciation of the words we learned their meaning.



### Практическое занятие № 3.

**Тема:** Вирусы. Причастие I.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить план-пересказ текста, придумать примеры на причастие I.

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Web gateways – Интернет-шлюзы

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8. How do “vaccine” anti-virus programs work?
9. What is real-time protection provided by anti-virus and anti-malware programs?
10. Name the main steps individuals and organizations should take to prevent viruses.

### Практическое занятие № 4.

**Тема:** Вирусы. Причастие I.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Сделать презентацию по теме, используя лексику урока.

### Topical vocabulary

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Two other types of malware – **Trojan horses** and **worms** – are often classified as viruses, but are actually forms of distributing malware.

**Trojan horses** are impostor files that claim to be something desirable but, in fact, are malicious. A Trojan horse appears to do one thing (install a screen saver, or show a picture inside an email for example) when in fact it does something entirely different, and potentially malicious, such as erase files. Trojans can also open backdoors so that computer hackers can gain access to passwords and other personal information stored on a computer. Trojans don’t copy themselves or reproduce by infecting other files.

**Worms** are self-copying programs that have the capacity to move from one computer to another without human help, by exploiting security flaws in computer networks. Worms are self-contained and don’t need to be attached to a document or program the way viruses do. It is note-worthy that different types of malicious software (worms, Trojan horses, adware, spyware, etc.) are generally referred to as viruses though true computer viruses make up only a small subset of malware. For example, “ILOVEYOU” (“Love Bug”) or “Melissa” are two examples of worms.

As viruses become more complex, the technology to fight them must increase in sophistication as well. The simplest way to protect against computer viruses is to install one of the many available antivirus software programs, such as Norton Anti-Virus and McAfee Virus Scan. There is no way to entirely stop the spread of computer viruses, because new ones are created all the time. However, a number of excellent “vaccine” programs exist that search for and destroy viruses and prevent new ones from infecting your computer system.

These programs continuously monitor systems for viruses and automatically eliminate any they spot. Anti-virus and anti-malware programs can provide real-time protection against the installation of malware on a computer. The software scans disk files at download time, and blocks the activity of components known to represent malware. Users should regularly update antivirus software programs by going online to download the latest virus definitions.

But management must begin to emphasize security at a deeper level: in software design, corporate servers, Web gateways, and Internet service providers. Because around 80 percent of the world’s PCs run on Microsoft operating systems, a single virus can spread quickly among them. Computer users should carefully choose the files they load onto their systems, scan their systems regularly, make sure their antivirus software is up-to-date, and install software only from known sources. They should also be very careful when opening attachments to emails, since this is the way many viruses are spread.

## 1. Выберите правильный вариант ответа.

1. A computer virus is

- a) the name given to unwanted messages, mainly commercial advertising
- b) a visible program which accidentally attaches itself to other programs and can be easily deleted by the user
- c) a hidden program which secretly attaches itself to other programs and changes them or destroys data

2. *Viruses are programmed*

- a) to activate themselves immediately after the infected software has been installed
- b) to remain dormant for a certain period of time
- c) either to become active immediately or to remain dormant for a period of time

3. *True computer viruses include*

- a) macro viruses, email viruses, and worms
- b) macro viruses, email viruses, and logic bombs
- c) Trojans and worms

4. *A logic bomb is a virus*

- a) which is set to trigger when specific conditions are met
- b) which is spread in Microsoft Office by infecting documents and spreadsheets
- c) which uses email messages as a mode of transport

5. *One of the most dangerous viruses is a virus that changes its digital signature every time it replicates. Such viruses are very difficult to detect. They are called*

- a) macro viruses
- b) micro viruses
- c) polymorphic viruses

6. *A program that can open a backdoor to the computer so that crackers can gain access to sensitive information is known as*

- a) a worm
- b) a Trojan horse
- c) an adware

7. *Programs that replicate themselves from system to system without the use of a host file are known as*

- a) worms
- b) Trojans
- c) true viruses

8. *Unlike viruses, worms don't need to be attached to a document or program as they are*

- a) self-confident
- b) self-controlled
- c) self-contained

9. *Love Bug, Mydoom and Melissa are the examples of*

- a) true viruses
- b) worms
- c) Trojans

10. *The main difference between the terms "viruses" and "malware" is that*

- a) viruses are much more dangerous than other types of malware
- b) all other types of malware are much more dangerous than viruses
- c) all viruses are malwares but not all malwares are viruses

11. *The simplest way to protect against computer viruses is*
- to have no computer at all
  - to monitor access 24 hours a day
  - to use reliable and up-to-date anti-virus and anti-malware software

## 2. Ответьте на вопросы.

- What is a computer virus? How does a computer virus work?
- What are the ways viruses spread? Why can viruses spread so quickly?
- Name some of the famous viruses used to spread worldwide.
- Enumerate the main types of true viruses. Which of the virus types given in the text do you think to be the most dangerous and why?
- Describe a malicious program called “a Trojan horse”. 6. Explain what a computer worm is.
- How do Trojans and worms differ from true viruses?
- How do “vaccine” anti-virus programs work?
- What is real-time protection provided by anti-virus and anti-malware programs?
- Name the main steps individuals and organizations should take to prevent viruses.

### Практическое занятие № 5.

**Тема:** Заражение вирусами. Причастие II.

**Цель:** Введение и закрепление лексического и грамматического материала.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести слова, текст, упр.1-3.

#### Topical vocabulary

dormant – бездействующий, неактивный

infection – заражение

to infect – заражать, инфицировать

routine – подпрограмма

to patch – исправлять программу с помощью подпрограммы

to enable – давать возможность; делать возможным

COM or EXE files – файлы с расширением .exe и .com; исполнимые файлы

technique – технический приём, методика, метод

to stay resident – постоянно находиться

payload – (зд.) вредоносная нагрузка, вредоносное информационное наполнение

to replace – заменять

execution sequence – последовательность выполнения программы

JUMP command – команда резкого перехода, броска

reproduction routine – подпрограмма воспроизведения

misdirection routine – подпрограмма неправильного указания направления; дезориентации

trigger routine – подпрограмма запускающего события

### THE ANATOMY OF A VIRUS

#### Infection

Read and translate the text to do the tasks given below the text.

A biological virus is a very small, simple organism that infects living cells, known as the host, by attaching itself to them and using them to reproduce itself. This often causes harm to the host cells.

Similarly, a computer virus is a very small program routine (подпрограмма) that infects the computer system and uses its resources to reproduce itself. It often does this by patching the operating system to enable it to detect program files, such as COM (коммуникационный порт) or EXE files (исполняемые файлы). It then copies itself into those files. This sometimes causes harm to the host computer system. When the user runs an infected program, it is loaded into memory carrying the virus. The

virus uses a common programming technique to stay resident in memory. It can then use a reproduction routine to infect other programs. This process continues until the computer is switched off.

The virus may also contain a payload that remains dormant until a trigger event activates it, such as the user pressing a particular key. The payload can have a variety of forms. It might do something relatively harmless such as displaying a message on the monitor screen or it might do something more destructive such as deleting files on the hard disk.

When it infects a file, the virus replaces the first instruction in the host program with a command that changes the normal execution sequence. This type of command is known as a JUMP command and causes the virus instructions to be executed before the host program. This virus then returns control to the host program which then continues with its normal sequence of instructions and is executed in the normal way.

To be a virus, a program only needs to have a reproduction routine that enables it to infect other programs. Viruses can, however, have four main parts.

A misdirection routine, that enables it to hide itself; a reproduction routine that allows it to copy itself to other programs; a trigger that causes the payload to be activated at a particular time or when a particular event takes place; and a payload that may be a fairly harmless joke or may be very destructive. A program that has a payload but does not have a reproduction routine is known as a Trojan.

### **Antivirus Software**

Thankfully, antivirus software is regularly subjected to independent reviews, which evaluate just how effective they are in achieving their ultimate goal – i.e. keeping your computer virus-free. Here are some of the top antivirus software programs. Security specialists specialize in the design of software and hardware to protect information from security threats. Data security is critical for most businesses and even home computer users. Data lost due to disasters such as a flood or fire is crushing, but losing it to hackers or malware infection can have much greater consequences.

#### **1. Совместите слова из двух колонок.**

1 host

2 to patch

3 JUMP command

4 misdirection routine

5 reproduction routine

6 trigger routine

7 payload

a) a programming instruction that causes a program to change its normal sequence

b) the part of a virus that carries out a threat such as displaying a slogan on the screen

c) the part of a computer virus that enables it to attach a copy of itself to another program

d) a program that carries a virus

e) to insert programming code into a computer program to fix or modify it in some way

f) the part of a computer virus that enables it to hide itself by altering the normal sequence of instructions in another program

g) the part of a computer virus that enables it to decide when and how to activate the payload

#### **2. Замените русские слова их английскими эквивалентами.**

1. Don't open (вложения в электронное письмо) from (неизвестных людей).

2. Run and (обновляйте антивирусные программы), e.g. (вирусные сканеры).

3. Install a (сетевой экран), a program designed to prevent (шпионские программы) from (получения доступа в вашу внутреннюю сеть).

4. (Не принимайте файлы от) high-risk (источников).

5. It's dangerous to (давать персональную информацию людям) you contact in chat rooms.

6. (Сканируйте свою электронную почту) and be careful (какие веб-сайты вы посещаете).

7. Installing anti-virus software programs on your computer (очень важно, ес-ли вы хотите обезопасить ваш компьютер от червей, вирусов и прочих вредоносных программ).



8. (Существует много) anti-virus software programs (доступных сегодня, и большинство из них) are relatively inexpensive.

### 1. Выберите из скобок требующуюся форму Причастия II:

- a) The girl (writing, written) on the blackboard is our best pupil.  
b) Everything (writing, written) here is quite right.
- a) The house (surrounding, surrounded) by tall trees is very beautiful.  
b) The wall (surrounding, surrounded) the house was very high.
- a) Who is that boy (doing, done) his homework at that table?  
b) The exercises (doing, done) by the pupils were easy.
- a) The girl (washing, washed) the floor is my sister.  
b) The floor (washing, washed) by Helen looked very clean.

### Практическое занятие № 6.

**Тема:** Заражение вирусами. Причастие II.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить вопросы к тексту, упр.2-3.

### Topical vocabulary

dormant – бездействующий, неактивный

infection – заражение

to infect – заражать, инфицировать

routine – подпрограмма

to patch – исправлять программу с помощью подпрограммы

to enable – давать возможность; делать возможным

COM or EXE files – файлы с расширением .exe и .com; исполнимые файлы

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trigger routine – подпрограмма запускающего события

## THE ANATOMY OF A VIRUS

### Infection

Read and translate the text to do the tasks given below the text.

A biological virus is a very small, simple organism that infects living cells, known as the host, by attaching itself to them and using them to reproduce itself. This often causes harm to the host cells.

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The virus may also contain a payload that remains dormant until a trigger event activates it, such as the user pressing a particular key. The payload can have a variety of forms. It might do something relatively harmless such as displaying a message on the monitor screen or it might do something more destructive such as deleting files on the hard disk.

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### **Antivirus Software**

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#### **1. Совместите слова из двух колонок.**

1 host

2 to patch

3 JUMP command

4 misdirection routine

5 reproduction routine

6 trigger routine

7 payload

a) a programming instruction that causes a program to change its normal sequence

b) the part of a virus that carries out a threat such as displaying a slogan on the screen

c) the part of a computer virus that enables it to attach a copy of itself to another program

d) a program that carries a virus

e) to insert programming code into a computer program to fix or modify it in some way

f) the part of a computer virus that enables it to hide itself by altering the normal sequence of instructions in another program

g) the part of a computer virus that enables it to decide when and how to activate the payload

#### **2. Переведите на русский язык, обращая внимание на причастие прошедшего времени.**

1. He doesn't like boiled milk.

2. I remember well his words said at the meeting.

3. We don't like the book bought last week.

4. The stolen things were returned to the owner.

5. Asked about this event, he replied nothing.

6. The explanation given was not complete.

7. When burnt, coal produces heat.

8. The results received were of great importance for the further work.

9. When reconstructed the theatre looked more beautiful than before.
10. She showed us a list of the newly published books.

### **3. Раскройте скобки, употребив причастие прошедшего времени. Переведите.**

1. The letter (to write) by him was very long.
2. We are interested in the goods (to produce) by this factory.
3. She didn't understand the word (to say) by him.
4. He didn't see the things (to keep) in her box.
5. I don't like the video (to buy) yesterday.
6. This is the house (to build) many years ago.
7. The question (to put) to the professor was important.
8. When (to offer) to work abroad, he refused.
9. The article on agriculture (to publish) in this magazine was written by Smith.
10. You can get the book (to recommend) by our teacher in the library.

### **Практическое занятие № 7.**

**Тема:** Заражение вирусами. Причастие II.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить пересказ текста, упр.2.

#### **Topical vocabulary**

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infection – заражение

to infect – заражать, инфицировать

routine – подпрограмма

to patch – исправлять программу с помощью подпрограммы

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trigger routine – подпрограмма запускающего события

## **THE ANATOMY OF A VIRUS**

### **Infection**

Read and translate the text to do the tasks given below the text.

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Similarly, a computer virus is a very small program routine (подпрограмма) that infects the computer system and uses its resources to reproduce itself. It often does this by patching the operating system to enable it to detect program files, such as COM (коммуникационный порт) or EXE files (исполняемые файлы). It then copies itself into those files. This sometimes causes harm to the host computer system. When the user runs an infected program, it is loaded into memory carrying the virus. The virus uses a common programming technique to stay resident in memory. It can then use a reproduction routine to infect other programs. This process continues until the computer is switched off.

The virus may also contain a payload that remains dormant until a trigger event activates it, such as the user pressing a particular key. The payload can have a variety of forms. It might do something relatively harmless such as displaying a message on the monitor screen or it might do something more destructive such as deleting files on the hard disk.

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### **Antivirus Software**

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#### **1. Совместите слова из двух колонок.**

1 host

2 to patch

3 JUMP command

4 misdirection routine

5 reproduction routine

6 trigger routine

7 payload

a) a programming instruction that causes a program to change its normal sequence

b) the part of a virus that carries out a threat such as displaying a slogan on the screen

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f) the part of a computer virus that enables it to hide itself by altering the normal sequence of instructions in another program

g) the part of a computer virus that enables it to decide when and how to activate the payload

#### **2. Выберите правильную форму и вставьте в предложение.**

1. interesting/interested

This exercise is \_\_\_\_\_.

2. exciting/excited

On Christmas Eve, many children are so \_\_\_\_\_ that they stay up all night.

3. annoying/annoyed

My friend has a very \_\_\_\_\_ habit.

4. tiring/tired

I had such a \_\_\_\_\_ day I went straight to bed.

5. relaxing/relaxed

We were \_\_\_\_\_ after our holidays.

6. disgusting/disgusted

Their hamburgers are \_\_\_\_\_ .

7. satisfying/satisfied

I'm not \_\_\_\_\_ with my job.

8. boring/bored

George always talks about the same things, he is so \_\_\_\_\_.

9. disappointing/disappointed

I like this actor but the film was \_\_\_\_\_.

10.confusing/confused

English grammar can be \_\_\_\_\_.

### Практическое занятие № 8.

**Тема:** Заражение вирусами. Причастие II.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

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## THE ANATOMY OF A VIRUS

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3 JUMP command

4 misdirection routine

5 reproduction routine

6 trigger routine

7 payload

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We were \_\_\_\_\_ after our holidays.

6. disgusting/disgusted

Their hamburgers are \_\_\_\_\_ .

7. satisfying/satisfied

I'm not \_\_\_\_\_ with my job.

8. boring/bored

George always talks about the same things, he is so \_\_\_\_\_.

9. disappointing/disappointed

I like this actor but the film was \_\_\_\_\_.

10. confusing/confused

English grammar can be \_\_\_\_\_.

### Практическое занятие № 9.

**Тема:** Заражение вирусами. Причастие II.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить пересказ текста, упр.2.

#### Topical vocabulary

dormant – бездействующий, неактивный

infection – заражение

to infect – заражать, инфицировать

routine – подпрограмма

to patch – исправлять программу с помощью подпрограммы

to enable – давать возможность; делать возможным

COM or EXE files – файлы с расширением .exe и .com; исполнимые файлы

technique – технический приём, методика, метод

to stay resident – постоянно находиться

payload – (зд.) вредоносная нагрузка, вредоносное информационное наполнение

to replace – заменять

execution sequence – последовательность выполнения программы

JUMP command – команда резкого перехода, броска

reproduction routine – подпрограмма воспроизведения

misdirection routine – подпрограмма неправильного указания направления; дезориентации

trigger routine – подпрограмма запускающего события

### THE ANATOMY OF A VIRUS

#### Infection

Read and translate the text to do the tasks given below the text.

A biological virus is a very small, simple organism that infects living cells, known as the host, by attaching itself to them and using them to reproduce itself. This often causes harm to the host cells.

Similarly, a computer virus is a very small program routine (подпрограмма) that infects the computer system and uses its resources to reproduce itself. It often does this by patching the operating system to enable it to detect program files, such as COM (коммуникационный порт) or EXE files (исполняемые файлы). It then copies itself into those files. This sometimes causes harm to the host computer system. When the user runs an infected program, it is loaded into memory carrying the virus. The virus uses a common programming technique to stay resident in memory. It can then use a reproduction routine to infect other programs. This process continues until the computer is switched off.

The virus may also contain a payload that remains dormant until a trigger event activates it, such as the user pressing a particular key. The payload can have a variety of forms. It might do something relatively harmless such as displaying a message on the monitor screen or it might do something more destructive such as deleting files on the hard disk.

When it infects a file, the virus replaces the first instruction in the host program with a command that changes the normal execution sequence. This type of command is known as a JUMP command and causes the virus instructions to be executed before the host program. This virus then returns control to the host program which then continues with its normal sequence of instructions and is executed in the normal way.

To be a virus, a program only needs to have a reproduction routine that enables it to infect other programs. Viruses can, however, have four main parts.

A misdirection routine, that enables it to hide itself; a reproduction routine that allows it to copy itself to other programs; a trigger that causes the payload to be activated at a particular time or when a particular event takes place; and a payload that may be a fairly harmless joke or may be very destructive. A program that has a payload but does not have a reproduction routine is known as a Trojan.

### **Antivirus Software**

Thankfully, antivirus software is regularly subjected to independent reviews, which evaluate just how effective they are in achieving their ultimate goal – i.e. keeping your computer virus-free. Here are some of the top antivirus software programs. Security specialists specialize in the design of software and hardware to protect information from security threats. Data security is critical for most businesses and even home computer users. Data lost due to disasters such as a flood or fire is crushing, but losing it to hackers or malware infection can have much greater consequences.

#### **1. Совместите слова из двух колонок.**

1 host

2 to patch

3 JUMP command

4 misdirection routine

5 reproduction routine

6 trigger routine

7 payload

a) a programming instruction that causes a program to change its normal sequence

b) the part of a virus that carries out a threat such as displaying a slogan on the screen

c) the part of a computer virus that enables it to attach a copy of itself to another program

d) a program that carries a virus

e) to insert programming code into a computer program to fix or modify it in some way

f) the part of a computer virus that enables it to hide itself by altering the normal sequence of instructions in another program

g) the part of a computer virus that enables it to decide when and how to activate the payload

#### **2. Выберите правильную форму и вставьте в предложение.**

1. interesting/interested

This exercise is \_\_\_\_\_.

2. exciting/excited

On Christmas Eve, many children are so \_\_\_\_\_ that they stay up all night.

3. annoying/annoyed

My friend has a very \_\_\_\_\_ habit.

4. tiring/tired

I had such a \_\_\_\_\_ day I went straight to bed.

5. relaxing/relaxed

We were \_\_\_\_\_ after our holidays.

6. disgusting/disgusted

Their hamburgers are \_\_\_\_\_ .

7. satisfying/satisfied

I'm not \_\_\_\_\_ with my job.



8. boring/bored

George always talks about the same things, he is so \_\_\_\_\_.

9. disappointing/disappointed

I like this actor but the film was \_\_\_\_\_.

10.confusing/confused

English grammar can be\_\_\_\_\_.

### Практическое занятие № 10.

**Тема:** Контрольная работа.

**Цель:** Контроль лексических и грамматических навыков, словарного запаса обучающихся.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

#### Вариант I

- 1. Образуйте от данных глаголов причастие II и составьте с ними и с данными существительными словосочетания:**

To show, to close, to translate, to cut, to ask, to send.

Article, letter, film, bread, window, question.

- 2. Выберите подходящую форму причастия:**

1. The girl (wash, washed) the floor is my sister.
2. The (losing, lost) book was found at last.
3. I picked up the pen (lying, lain) on the floor.
4. Translate the words (writing, written) on the blackboard.

- 3. Раскройте скобки, употребляя глаголы в *Present Participle* or *Perfect Participle*:**

1. (to do) this task, he was thinking hard.
2. (to read) the story, she closed the book and put it on the shelf.
3. (to eat) all the potatoes, she drank a cup of tea.
4. (to sit) near the fire, he felt very warm.

- 4. Сделайте из двух предложений одно, используя причастие I.**

**Пример:** *Jim was playing tennis. He hurt his arm. – Jim hurt his arm playing tennis.*

1. I was watching TV. I fell asleep. I ..... .
2. The man slipped. He was getting off the bus. The man .... .
3. I was walking home in the rain. I got wet. I .... .
4. Margaret was driving to work yesterday. She had an accident....

#### Вариант II

- 1. Образуйте от данных глаголов причастие II и составьте с ними и с данными существительными словосочетания:**

To offer, to excite, to hear, to smoke, translate, to write.

Song, student, book, pen, text, cigarette.

- 2. Выберите подходящую форму причастия:**

1. The girl (writing, written) on the blackboard is our best student.
2. The tasks (doing, done) by the students were easy.
3. The wall (surrounding, surrounded) the house was very high.
4. I will show you a picture (painting, painted) by my brother.

- 3. Раскройте скобки, употребляя глаголы в *Present Participle* or *Perfect Participle*:**

1. (to eat) all the potatoes, she drank a cup of tea.

2. (to sit) near the fire, he felt very warm.
3. (to do) this task, he was thinking hard.
4. (to read) the story, she closed the book and put it on the shelf.

**4. Сделайте из двух предложений одно, используя причастие I.**

**Пример:** *Jim was playing tennis. He hurt his arm. – Jim hurt his arm playing tennis.*

1. Two firemen were overcome by smoke. They were trying to put up the fire. ....
2. Margaret was driving to work yesterday. She had an accident....
3. I was walking home in the rain. I got wet. I .... .
4. The man slipped. He was getting off the bus. The man .... .

**Практическое занятие № 11.**

**Тема:** Итоговое занятие.

**Цель:** Контроль умений и навыков практического владения английским языком.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Контрольные задания к зачету**

Лексические темы	Грамматические темы
1. Вирусы	3. Причастие I
2.	4. Причастие II

**1. Прочтите и переведите текст, выполните задания к тексту.**

**Вариант I**

**PROTECTING INFORMATION SYSTEMS: COMPUTER VIRUSES**

Another critical security challenge is presented by **computer viruses**, hidden programs that can work their way into computer systems and erase or corrupt data and programs. Viruses are programs that secretly attach themselves to other programs or files, known as the **host**, and change them or destroy data. Viruses can be programmed to become active immediately or to remain dormant for a period of time, after which the infections suddenly activate themselves and cause problems.

A virus can reproduce by copying itself onto other programs stored in the same drive. It spreads as users install infected software on their systems or exchange files with others, usually by exchanging email, accessing electronic bulletin boards, trading disks, or downloading programs or data from unknown sources on the Internet. Because so many computers are interconnected, viruses can spread quickly, infecting all the computers linked on a local area network and then spreading over the Internet to other computers and networks. The Melissa virus infected 350,000 computers in the United States and Europe. The Mydoom virus infected a quarter-million computers in a single day in January 2004. The so-called "Love Bug" virus alone caused an estimated \$15 billion in damage. Viruses can do more damage today than ever before and cost organizations billions of dollars each year. Most viruses are created by black-hat hackers and involve outright vandalism or crime.

Each virus is given a name e.g. "Love Bug" or "Melissa" and can be classified as a particular type of virus. The main virus types include:

**logic bombs** that destroy data when triggered

**boot sector viruses** that store themselves in the boot sector of a disk

**file viruses** that attach themselves to COM files (programs that have a COM extension e.g. command.com)

**macro viruses**, often written in the scripting languages for Microsoft programs such as Word or Excel, are spread in Microsoft Office by infecting documents and spreadsheets

**email viruses** which use email messages as a mode of transport and copy themselves by automatically mailing copies to hundreds of people in the victim's address book

**companion viruses** that instead of modifying an existing file, create a new program which is executed

instead of the intended program

**cross-site scripting viruses** that utilize cross-site scripting vulnerabilities to replicate

**polymorphic viruses** that not only replicate themselves by creating multiple files of themselves, but also change their digital signature every time they replicate

Two other types of malware – **Trojan horses** and **worms** – are often classified as viruses, but are actually forms of distributing malware.

**Trojan horses** are impostor files that claim to be something desirable but, in fact, are malicious. A Trojan horse appears to do one thing (install a screen saver, or show a picture inside an email for example) when in fact it does something entirely different, and potentially malicious, such as erase files. Trojans can also open backdoors so that computer hackers can gain access to passwords and other personal information stored on a computer. Trojans don't copy themselves or reproduce by infecting other files.

**Worms** are self-copying programs that have the capacity to move from one computer to another without human help, by exploiting security flaws in computer networks. Worms are self-contained and don't need to be attached to a document or program the way viruses do. It is note-worthy that different types of malicious software (worms, Trojan horses, adware, spyware, etc.) are generally referred to as viruses though true computer viruses make up only a small subset of malware. For example, "ILOVEYOU" ("Love Bug") or "Melissa" are two examples of worms.

As viruses become more complex, the technology to fight them must increase in sophistication as well. The simplest way to protect against computer viruses is to install one of the many available antivirus software programs, such as Norton Anti-Virus and McAfee Virus Scan. There is no way to entirely stop the spread of computer viruses, because new ones are created all the time. However, a number of excellent "vaccine" programs exist that search for and destroy viruses and prevent new ones from infecting your computer system.

These programs continuously monitor systems for viruses and automatically eliminate any they spot. Anti-virus and anti-malware programs can provide real-time protection against the installation of malware on a computer. The software scans disk files at download time, and blocks the activity of components known to represent malware. Users should regularly update antivirus software programs by going online to download the latest virus definitions.

But management must begin to emphasize security at a deeper level: in software design, corporate servers, Web gateways, and Internet service providers. Because around 80 percent of the world's PCs run on Microsoft operating systems, a single virus can spread quickly among them. Computer users should carefully choose the files they load onto their systems, scan their systems regularly, make sure their antivirus software is up-to-date, and install software only from known sources. They should also be very careful when opening attachments to emails, since this is the way many viruses are spread.

## **2. Выберите правильный вариант ответа.**

1. *A computer virus is*

- a) the name given to unwanted messages, mainly commercial advertising
- b) a visible program which accidentally attaches itself to other programs and can be easily deleted by the user
- c) a hidden program which secretly attaches itself to other programs and changes them or destroys data

2. *Viruses are programmed*

- a) to activate themselves immediately after the infected software has been installed
- b) to remain dormant for a certain period of time
- c) either to become active immediately or to remain dormant for a period of time

3. *True computer viruses include*

- a) macro viruses, email viruses, and worms
- b) macro viruses, email viruses, and logic bombs

c) Trojans and worms

4. *A logic bomb is a virus*

- a) which is set to trigger when specific conditions are met
- b) which is spread in Microsoft Office by infecting documents and spreadsheets
- c) which uses email messages as a mode of transport

5. *One of the most dangerous viruses is a virus that changes its digital signature every time it replicates. Such viruses are very difficult to detect. They are called*

- a) macro viruses
- b) micro viruses
- c) polymorphic viruses

6. *A program that can open a backdoor to the computer so that crackers can gain access to sensitive information is known as*

- a) a worm
- b) a Trojan horse
- c) an adware

7. *Programs that replicate themselves from system to system without the use of a host file are known as*

- a) worms
- b) Trojans
- c) true viruses

8. *Unlike viruses, worms don't need to be attached to a document or program as they are*

- a) self-confident
- b) self-controlled
- c) self-contained

9. *Love Bug, Mydoom and Melissa are the examples of*

- a) true viruses
- b) worms
- c) Trojans

10. *The main difference between the terms "viruses" and "malware" is that*

- a) viruses are much more dangerous than other types of malware
- b) all other types of malware are much more dangerous than viruses
- c) all viruses are malwares but not all malwares are viruses

11. *The simplest way to protect against computer viruses is*

- a) to have no computer at all
- b) to monitor access 24 hours a day
- c) to use reliable and up-to-date anti-virus and anti-malware software

### **3. Ответьте на вопросы.**

1. What is a computer virus? How does a computer virus work?
2. What are the ways viruses spread? Why can viruses spread so quickly?
3. Name some of the famous viruses used to spread worldwide.
4. Enumerate the main types of true viruses. Which of the virus types given in the text do you think to be the most dangerous and why?
5. Describe a malicious program called "a Trojan horse".
6. Explain what a computer worm is.
7. How do Trojans and worms differ from true viruses?

8. How do “vaccine” anti-virus programs work?
9. What is real-time protection provided by anti-virus and anti-malware programs?
10. Name the main steps individuals and organizations should take to prevent viruses.

**4. Переведите на русский язык, обращая внимание на причастия настоящего времени.**

1. The girl standing at the window is my sister.
2. Having been sent to the wrong address the letter didn't reach him.
3. He sat in the arm-chair thinking.
4. She came up to us breathing heavily.
5. The hall was full of laughing people.
6. The singing girl was about fourteen.
7. Having read the book I gave it to Pete.
8. The large building being built in our street is a new school – house.
9. Having finished the experiment the students left the laboratory.
10. Being busy, he postponed his trip.

**5. Выберите из скобок требующуюся форму Причастия I:**

1. a) The girl (writing, written) on the blackboard is our best pupil.  
b) Everything (writing, written) here is quite right.
2. a) The house (surrounding, surrounded) by tall trees is very beautiful.  
b) The wall (surrounding, surrounded) the house was very high.
3. a) Who is that boy (doing, done) his homework at that table?  
b) The exercises (doing, done) by the pupils were easy.
4. a) The girl (washing, washed) the floor is my sister.  
b) The floor (washing, washed) by Helen looked very clean.

**Вариант II**

**1. Прочтите и переведите текст, выполните задания к тексту.**

**THE ANATOMY OF A VIRUS  
Infection**

Read and translate the text to do the tasks given below the text.

A biological virus is a very small, simple organism that infects living cells, known as the host, by attaching itself to them and using them to reproduce itself. This often causes harm to the host cells.

Similarly, a computer virus is a very small program routine (подпрограмма) that infects the computer system and uses its resources to reproduce itself. It often does this by patching the operating system to enable it to detect program files, such as COM (коммуникационный порт) or EXE files (исполняемые файлы). It then copies itself into those files. This sometimes causes harm to the host computer system. When the user runs an infected program, it is loaded into memory carrying the virus. The virus uses a common programming technique to stay resident in memory. It can then use a reproduction routine to infect other programs. This process continues until the computer is switched off.

The virus may also contain a payload that remains dormant until a trigger event activates it, such as the user pressing a particular key. The payload can have a variety of forms. It might do something relatively harmless such as displaying a message on the monitor screen or it might do something more destructive such as deleting files on the hard disk.

When it infects a file, the virus replaces the first instruction in the host program with a command that changes the normal execution sequence. This type of command is known as a JUMP command and causes the virus instructions to be executed before the host program. This virus then returns control to the host program which then continues with its normal sequence of instructions and is executed in the normal way.

To be a virus, a program only needs to have a reproduction routine that enables it to infect other programs. Viruses can, however, have four main parts.

A misdirection routine, that enables it to hide itself; a reproduction routine that allows it to copy itself to other programs; a trigger that causes the payload to be activated at a particular time or when a particular event takes place; and a payload that may be a fairly harmless joke or may be very destructive. A program that has a payload but does not have a reproduction routine is known as a Trojan.

### **Antivirus Software**

Thankfully, antivirus software is regularly subjected to independent reviews, which evaluate just how effective they are in achieving their ultimate goal – i.e. keeping your computer virus-free. Here are some of the top antivirus software programs. Security specialists specialize in the design of software and hardware to protect information from security threats. Data security is critical for most businesses and even home computer users. Data lost due to disasters such as a flood or fire is crushing, but losing it to hackers or malware infection can have much greater consequences.

### **2. Совместите слова из двух колонок.**

1 host

2 to patch

3 JUMP command

4 misdirection routine

5 reproduction routine

6 trigger routine

7 payload

a) a programming instruction that causes a program to change its normal sequence

b) the part of a virus that carries out a threat such as displaying a slogan on the screen

c) the part of a computer virus that enables it to attach a copy of itself to another program

d) a program that carries a virus

e) to insert programming code into a computer program to fix or modify it in some way

f) the part of a computer virus that enables it to hide itself by altering the normal sequence of instructions in another program

g) the part of a computer virus that enables it to decide when and how to activate the payload

### **3. Переведите на русский язык, обращая внимание на причастие прошедшего времени.**

1. He doesn't like boiled milk.

2. I remember well his words said at the meeting.

3. We don't like the book bought last week.

4. The stolen things were returned to the owner.

5. Asked about this event, he replied nothing.

6. The explanation given was not complete.

7. When burnt, coal produces heat.

8. The results received were of great importance for the further work.

9. When reconstructed the theatre looked more beautiful than before.

10. She showed us a list of the newly published books.

### **4. Раскройте скобки, употребив причастие прошедшего времени. Переведите.**

1. The letter (to write) by him was very long.

2. We are interested in the goods (to produce) by this factory.

3. She didn't understand the word (to say) by him.

4. He didn't see the things (to keep) in her box.

5. I don't like the video (to buy) yesterday.

6. This is the house (to build) many years ago.

7. The question (to put) to the professor was important.

8. When (to offer) to work abroad, he refused.
9. The article on agriculture (to publish) in this magazine was written by Smith.
10. You can get the book (to recommend) by our teacher in the library.

## 4 КУРС 8 СЕМЕСТР ВОССТАНОВЛЕНИЕ ДАННЫХ

### Практическое занятие № 1.

**Тема:** Восстановление системы. Герундий/Инфинитив.

**Цель:** Введение и закрепление лексического и грамматического материала.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести слова, текст, упр.1-3.

#### Topical vocabulary

natural disaster – стихийное бедствие

man-made disaster – техногенная авария (катастрофа)

power failure – нарушение электроснабжения

software glitch – сбой программного обеспечения

to disrupt – нарушать, приводить к срыву

equipment malfunction – неисправность оборудования

deliberate attempt – преднамеренная попытка

data loss – потеря данных

power outage – отключение электроэнергии

unpredictable – непредсказуемый

to respond to – реагировать, отвечать (на что-либо)

to ensure – обеспечивать, гарантировать

continued operation – непрерывная работа

vital – жизненно важный

recovery – восстановление

disaster recovery – восстановление после бедствия

computer system failure – авария компьютерных систем

data safety – безопасность данных

... of paramount importance – первостепенной важности

backup – резервная копия

to back up – делать резервные копии

at least – по меньшей мере

location – (определённое) место;

место размещения

archiving – архивирование; сохранение

hard image – резервный образ диска; образ дисковой памяти

hard disk imaging – создание резервного образа диска (запись образа диска на запоминающем устройстве)

mirror image – зеркальный образ

to recreate – воссоздавать

actual content – действительный (текущий) контент (информационное наполнение)

In its entirety – во всей полноте; полностью

partition – раздел (диска)

to restore – восстанавливать

online data backup – резервное копирование в системе online

external storage device – устройство внешней памяти, внешнее запоминающее устройство

affordable – недорогой, доступный

backup site – резервный узел; резервное производственное помещение (для размещения вычислительных

средств в случае стихийного бедствия)

cold (warm, hot) backup site – «холодный» («тёплый», «горячий») резервный узел

data center – вычислительный центр



accessible – доступный

...it involves downtime – происходит время простоя (потеря машинного времени)

remote storage facility =

off-site storage facility – удалённое хранилище данных

efficient – эффективный

replica – точная копия

...the only item that needs

to be added – единственное, что нужно добавить..

## **PROTECTING INFORMATION SYSTEMS: DISASTER RECOVERY AND BACKUP**

Natural disasters, power failures, equipment malfunctions, software glitches, human error, and terrorist attacks can disrupt even the most sophisticated computer systems. Man-made disasters can range from a catastrophic operator error to a deliberate attempt to cause damage. Mistakes can cause data loss, power outages, and a wide variety of other problems. We can often stop disasters caused by man, but there is nothing we can do that can stop the natural disasters. These natural disasters such as floods, earthquakes, hurricanes, volcanoes, tsunamis, or wildfire are unpredictable and within a short span of time can destroy information and communication systems. Whether a disaster is natural or man-made, companies and organizations must be ready to respond to it quickly and effectively. As IT systems have become increasingly critical to the smooth operation of a company, the importance of ensuring the continued operation of those systems, and their rapid recovery, has increased.

One of the most important aspects of disaster recovery is to have a solid disaster recovery plan. Disaster recovery means bringing IT systems and functions back online after a disruption. A disaster recovery plan is intended to keep a company as functional as possible during a disaster and to help the company recover quickly in the event of a disaster. This plan also includes disaster prevention programs – decisions on how to prevent computer system failures.

Data safety is a problem of paramount importance. For example, of companies that had a major loss of business data, 43% never reopen and 29% close within two years. The most effective way to avoid the loss of data is to create frequent backups of your files. If this data is really sensitive, it is important to store at least two copies of it and keep at least one copy in a secure, remote location. In IT, a backup, or the process of backing up, refers to the copying and archiving of computer data so it may be used to restore the original after a data loss event. Some methods of backup are more reliable than others, while others may be more convenient than some. In order to protect your business data, it is important to have a solution that is both reliable and convenient.

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**Online data backup** is a solution growing in popularity. This type of solution calls for your data to be stored on a secure server in a remote location. With online data backup, your data is safe; the computer encrypts your files before sending them, and files are secured with password protection. Backups can be done automatically and data is available anywhere in the world at any time.

Another good option for backing up your business data are **external storage devices**. These are simple, affordable and come in many different forms. The most common devices are external hard drives and modern inventions, such as encrypted flash drives.

One of the most critical aspects of network security is to have a location from which the recovery can take place. This location is known as a **backup site**. In the event of a disaster, a backup site is where

your data center will be recreated, and where you will operate from, during the disaster. There are three basic types of backup sites: cold, warm, and hot. (These terms do not refer to the temperature of the backup site; instead, they refer to the effort required to begin operations at the backup site in the event of a disaster).

A **cold backup site** is an offline database that is not accessible for updates and is generally a space that has been reserved within a building. With a cold backup site, everything that is required to restore service must be delivered to the site. Although cold backup sites are the least expensive way of backing up data, they involve downtime to restore service to the users since they cannot access the database during the recovery process.

A **warm backup site** is a site that is already equipped with hardware that contains a backup of the information that is contained in the data center. Before you can use a warm backup site to restore service, the most recent backups from the remote storage facility must be delivered before recovery can begin. Although a warm backup site contains backups, the information may be incomplete due to the fact that the backup may have been sent to the facility as much as one week ago.

A **hot backup site** is the most efficient and expensive means of disaster recovery. With a hot backup site, users can continue to access the database while restoration is in process. Recovery can take place within a few hours due to the fact that the hot backup contains a replica of the current data in the data center. The only item that needs to be added is the latest backups from the off-site storage facility.

Offsite backup sites can be provided by organizations that specialize in disaster recovery, a location within your own organization, or a shared facility by multiple organizations.

### **1. Выберите правильный вариант ответа.**

1. *Can people stop disasters?*

- a) We can often stop natural disasters, but there is nothing we can do that can stop disasters caused by man.
- b) We can often stop disasters caused by man, but there is nothing we can do that can stop the natural disasters.
- c) We can stop any disaster regardless of whether it is natural or man-made. 79

2. *A disaster recovery plan is intended*

- a) to estimate the cost of damage in the event of a disaster
- b) to ensure psychological recovery of people in the event of a disaster
- c) to decide how to prevent system failures and continue operations if computer systems fail

3. *One of the most important aspects of disaster recovery is*

- a) data verification
- b) data transmission
- c) data safety

4. *In order to avoid an untimely disaster, the best insurance policy involves frequently*

- a) scrambling all important data
- b) backing up all important data
- c) compressing all important data

5. *The fastest and easiest method of data backup is*

- a) hard disk imaging
- b) online data backup
- c) the use of external storage devices

6. *Hard disk imaging is often referred to as*

- a) online backup
- b) offsite backup
- c) cloning

7. *There are many advantages to online backup, including:*

- a) The data can be easily recreated in its entirety, even partitions and the file system.
- b) The device is very small so you can carry it with you and it plugs into any PC with a USB port.
- c) By having your data stored on a remote hard drive, you run little or no risk of losing your data as a result of fire, theft, or any other disaster

8. *A location where a business can easily relocate following a disaster, such as a fire, flood, or terrorist attack, is known as*

- a) a backup host
- b) a backup file
- c) a backup site

9. **What do the terms “cold”, “warm” and “hot” refer to when describing the backup site?**

- a) These terms refer to the temperature of the backup site.
- b) These terms refer to the season at which the backup site begins to function (is made operational).
- c) These terms refer to the effort required to begin operations in the event of a disaster.

10. *With a hot backup site,*

- a) users cannot access the database during the recovery process
- b) users can continue to access the database while restoration is in process
- c) users have access to the database but the information is incomplete

11. *A backup site where the most recent backups from the remote storage facility must be delivered before recovery can begin is called*

- a) a cold backup site
- b) a warm backup site
- c) a hot backup site

12. *Offsite backup sites can be provided*

- a) exclusively by organizations that specialize in disaster recovery
- b) by organizations that specialize in disaster recovery, or a shared facility by multiple organizations
- c) by organizations that specialize in disaster recovery, a location within your own organization, or a facility shared by multiple organizations

**2. Выберите из скобок герундий или инфинитив.**

- 1. I am planning ... (to visit/visiting) my granny next week.
- 2. When they finish ... (to eat/eating) their lunch, they'll go to the office.
- 3. He suggested ... (to buy/buying) some food.
- 4. Does Sally enjoy ... (to go/going) to the gym?
- 5. Don't put off ... (to write/writing) a report till the end of the month.
- 6. John refused ... (to answer/answering) my question.
- 7. My brother intends ... (to get/getting) married soon.
- 8. I think she didn't mean ... (to hurt/hurting) you.
- 9. Keep ... (to beat/beating) the eggs.
- 10. Fred can't afford ... (to travel/travelling) this year.

**3. Составьте предложения, выбрав начало из первого столбца и окончание – из второго.**

- |                        |                                |
|------------------------|--------------------------------|
| 1. She is interested   | a) drinking alcohol.           |
| 2. I would like        | b) to seeing my daughter.      |
| 3. You should give up  | c) being ill.                  |
| 4. We really enjoy     | d) laughing at her.            |
| 5. I'm looking forward | e) to living in a dirty house. |
| 6. He is used          | f) talking to drunk people.    |
| 7. She pretended       | g) swimming in the sea.        |
| 8. Pamela is good      | h) to have a cup of coffee.    |
| 9. I couldn't help     | i) in surfing the Internet.    |
| 10. She avoids         | j) at riding a horse.          |

**Практическое занятие №2.**

**Тема:** Восстановление системы. Герундий/Инфинитив.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Ответить на вопросы, упр.2-3.

**Topical vocabulary**

natural disaster – стихийное бедствие

man-made disaster – техногенная авария (катастрофа)

power failure – нарушение электроснабжения

software glitch – сбой программного обеспечения

to disrupt – нарушать, приводить к срыву

equipment malfunction – неисправность оборудования

deliberate attempt – преднамеренная попытка

data loss – потеря данных

power outage – отключение электроэнергии

unpredictable – непредсказуемый

to respond to – реагировать, отвечать (на что-либо)

to ensure – обеспечивать, гарантировать

continued operation – непрерывная работа

vital – жизненно важный  
recovery – восстановление  
disaster recovery – восстановление после бедствия  
computer system failure – авария компьютерных систем  
data safety – безопасность данных  
... of paramount importance – первостепенной важности  
backup – резервная копия  
to back up – делать резервные копии  
at least – по меньшей мере  
location – (определённое) место;  
место размещения  
archiving – архивирование; сохранение  
hard image – резервный образ диска; образ дисковой памяти  
hard disk imaging – создание резервного образа диска (запись образа диска на запоминающем устройстве)  
mirror image – зеркальный образ  
to recreate – воссоздавать  
actual content – действительный (текущий) контент (информационное наполнение)  
In its entirety – во всей полноте; полностью  
partition – раздел (диска)  
to restore – восстанавливать  
online data backup – резервное копирование в системе online  
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backup site – резервный узел; резервное производственное помещение (для размещения вычислительных средств в случае стихийного бедствия)  
cold (warm, hot) backup site – «холодный» («тёплый», «горячий») резервный узел  
data center – вычислительный центр  
accessible – доступный  
...it involves downtime – происходит время простоя (потеря машинного времени)  
remote storage facility =  
off-site storage facility – удалённое хранилище данных  
efficient – эффективный  
replica – точная копия  
...the only item that needs  
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## **PROTECTING INFORMATION SYSTEMS: DISASTER RECOVERY AND BACKUP**

Natural disasters, power failures, equipment malfunctions, software glitches, human error, and terrorist attacks can disrupt even the most sophisticated computer systems. Man-made disasters can range from a catastrophic operator error to a deliberate attempt to cause damage. Mistakes can cause data loss, power outages, and a wide variety of other problems. We can often stop disasters caused by man, but there is nothing we can do that can stop the natural disasters. These natural disasters such as floods, earthquakes, hurricanes, volcanoes, tsunamis, or wildfire are unpredictable and within a short span of time can destroy information and communication systems. Whether a disaster is natural or man-made, companies and organizations must be ready to respond to it quickly and effectively. As IT systems have become increasingly critical to the smooth operation of a company, the importance of ensuring the continued operation of those systems, and their rapid recovery, has increased.

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recovery plan is intended to keep a company as functional as possible during a disaster and to help the company recover quickly in the event of a disaster. This plan also includes disaster prevention programs – decisions on how to prevent computer system failures.

Data safety is a problem of paramount importance. For example, of companies that had a major loss of business data, 43% never reopen and 29% close within two years. The most effective way to avoid the loss of data is to create frequent backups of your files. If this data is really sensitive, it is important to store at least two copies of it and keep at least one copy in a secure, remote location. In IT, a backup, or the process of backing up, refers to the copying and archiving of computer data so it may be used to restore the original after a data loss event. Some methods of backup are more reliable than others, while others may be more convenient than some. In order to protect your business data, it is important to have a solution that is both reliable and convenient.

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A **warm backup site** is a site that is already equipped with hardware that contains a backup of the information that is contained in the data center. Before you can use a warm backup site to restore service, the most recent backups from the remote storage facility must be delivered before recovery can begin. Although a warm backup site contains backups, the information may be incomplete due to the fact that the backup may have been sent to the facility as much as one week ago.

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Offsite backup sites can be provided by organizations that specialize in disaster recovery, a location within your own organization, or a shared facility by multiple organizations.

## 1. Ответьте на вопросы.

1. What disastrous events can disrupt even the most sophisticated computer systems?
2. Differentiate between natural and man-made disasters.

3. What is a disaster recovery plan? Why is it so important for companies and organizations?
4. Assess the importance of data safety to network security.
5. What is the most effective way to avoid data loss?
6. Describe the process of hard disk imaging.
7. What are the advantages of online data backup?
8. Name the most common external storage devices.
9. What is a backup site? What are the three basic types of backup sites?
10. Characterize a cold backup site. Why does it involve downtime to restore service to the users?
11. Describe a warm backup site. Does a warm backup site contain backups?
12. Explain why a hot backup site is considered the most efficient means of disaster recovery.

## 2. Use Infinitive or -ing form.

1. It was quite late when they saw Martin ... (come) up the other side of the street. They saw him ... (pause) in front of his house, ... (look) up at it and ... (knock) at the door.
2. My parents let me (stay) at Molly's house last weekend. They agreed ... (take) me to his place in the car and they made me (promise) to behave myself.
3. Mel hates (answer) the phone. And very often Mel just lets it ... (ring).
4. At first Jenny enjoyed ... (listen) to Steven but after a while she got tired of ... (hear) the same story.
5. Polly can't (go) to the cinema today. She's busy ... (study) for her exam, which is next week, but she's decided ... (take) a break and ... (phone) Megan.
6. I tried ... (listen) carefully and in order (not/show) how I was embarrassed, I did my best ... (keep) the conversation ... (go) on one topic and another.

## 3. Прочитайте предложения. Выберите один из предложенных вариантов ответа.

1. Peace activist Baroness Bertha von Suttner encouraged Alfred Nobel ... a prize for peace. (establish / to establish / establishing / to be established)
2. The police officer made Neil get out of the car and demanded ... his driver's licence. (see / seeing / to see / to be seen)
3. In the time of Peter the Great the noblemen were not allowed ... beards. (have / to have / having / having had)
4. They wouldn't let ... the country without the entry visa, would they? (him to enter / he enters / him enter / him entering)
5. Fred couldn't make ... that he had caught the huge fish himself. (I believed/ me believe / me believed / me to believe)
6. Nick was very close to the phone-box and Mary noticed him ... the number, and then she heard him ... something to passer-by. (to dial, to say / dialing, to say / to dial, say / dial, say)
7. Nick was seen ... the hall and then Jane watched him ... (enter, go away / be entered, to go away / enter, go away / to have entered, to be gone away)

### Практическое занятие № 3.

**Тема:** Восстановление системы. Герундий/Инфинитив.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить пересказ текста, придумать примеры на герундий и инфинитив.

#### Topical vocabulary

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power failure – нарушение электроснабжения

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### 1. Ответьте на вопросы.

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8. Name the most common external storage devices.
9. What is a backup site? What are the three basic types of backup sites?
10. Characterize a cold backup site. Why does it involve downtime to restore service to the users?
11. Describe a warm backup site. Does a warm backup site contain backups?
12. Explain why a hot backup site is considered the most efficient means of disaster recovery.

### Практическое занятие № 4.

**Тема:** Восстановление системы. Герундий/Инфинитив.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Сделать презентацию, используя лексику урока.

### Topical vocabulary

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unpredictable – непредсказуемый

to respond to – реагировать, отвечать (на что-либо)

to ensure – обеспечивать, гарантировать

continued operation – непрерывная работа

vital – жизненно важный

recovery – восстановление

disaster recovery – восстановление после бедствия

computer system failure – авария компьютерных систем

data safety – безопасность данных

... of paramount importance – первостепенной важности

backup – резервная копия

to back up – делать резервные копии

at least – по меньшей мере  
location – (определённое) место;  
место размещения  
archiving – архивирование; сохранение  
hard image – резервный образ диска; образ дисковой памяти  
hard disk imaging – создание резервного образа диска (запись образа диска на запоминающем устройстве)  
mirror image – зеркальный образ  
to recreate – воссоздавать  
actual content – действительный (текущий) контент (информационное наполнение)  
In its entirety – во всей полноте; полностью  
partition – раздел (диска)  
to restore – восстанавливать  
online data backup – резервное копирование в системе online  
external storage device – устройство внешней памяти, внешнее запоминающее устройство  
affordable – недорогой, доступный  
backup site – резервный узел; резервное производственное помещение (для размещения вычислительных средств в случае стихийного бедствия)  
cold (warm, hot) backup site – «холодный» («тёплый», «горячий») резервный узел  
data center – вычислительный центр  
accessible – доступный  
...it involves downtime – происходит время простоя (потеря машинного времени)  
remote storage facility =  
off-site storage facility – удалённое хранилище данных  
efficient – эффективный  
replica – точная копия  
...the only item that needs  
to be added – единственное, что нужно добавить..

## **PROTECTING INFORMATION SYSTEMS: DISASTER RECOVERY AND BACKUP**

Natural disasters, power failures, equipment malfunctions, software glitches, human error, and terrorist attacks can disrupt even the most sophisticated computer systems. Man-made disasters can range from a catastrophic operator error to a deliberate attempt to cause damage. Mistakes can cause data loss, power outages, and a wide variety of other problems. We can often stop disasters caused by man, but there is nothing we can do that can stop the natural disasters. These natural disasters such as floods, earthquakes, hurricanes, volcanoes, tsunamis, or wildfire are unpredictable and within a short span of time can destroy information and communication systems. Whether a disaster is natural or man-made, companies and organizations must be ready to respond to it quickly and effectively. As IT systems have become increasingly critical to the smooth operation of a company, the importance of ensuring the continued operation of those systems, and their rapid recovery, has increased.

One of the most important aspects of disaster recovery is to have a solid disaster recovery plan. Disaster recovery means bringing IT systems and functions back online after a disruption. A disaster recovery plan is intended to keep a company as functional as possible during a disaster and to help the company recover quickly in the event of a disaster. This plan also includes disaster prevention programs – decisions on how to prevent computer system failures.

Data safety is a problem of paramount importance. For example, of companies that had a major loss of business data, 43% never reopen and 29% close within two years. The most effective way to avoid the loss of data is to create frequent backups of your files. If this data is really sensitive, it is important to store at least two copies of it and keep at least one copy in a secure, remote location. In IT, a backup, or the

process of backing up, refers to the copying and archiving of computer data so it may be used to restore the original after a data loss event. Some methods of backup are more reliable than others, while others may be more convenient than some. In order to protect your business data, it is important to have a solution that is both reliable and convenient.

**Hard disk imaging**, often referred to as cloning, is one of the most popular and efficient methods of storing important data. This type of system saves every piece of data on your hard drive. This unique process allows you to create a mirror image of a disk at a specific point of time. A disk image can be compared to a photo image. It is capable of being recreated into the actual contents, just as a photograph can be used to recreate a specific scene at a specific point in the past. In the event of a complete system failure, the data on your hard disk can be easily recreated in its entirety, even your partitions and file system. It is also the fastest and easiest method of data backup, enabling you to quickly restore data following an unexpected catastrophe.

**Online data backup** is a solution growing in popularity. This type of solution calls for your data to be stored on a secure server in a remote location. With online data backup, your data is safe; the computer encrypts your files before sending them, and files are secured with password protection. Backups can be done automatically and data is available anywhere in the world at any time.

Another good option for backing up your business data are **external storage devices**. These are simple, affordable and come in many different forms. The most common devices are external hard drives and modern inventions, such as encrypted flash drives.

One of the most critical aspects of network security is to have a location from which the recovery can take place. This location is known as a **backup site**. In the event of a disaster, a backup site is where your data center will be recreated, and where you will operate from, during the disaster. There are three basic types of backup sites: cold, warm, and hot. (These terms do not refer to the temperature of the backup site; instead, they refer to the effort required to begin operations at the backup site in the event of a disaster).

A **cold backup site** is an offline database that is not accessible for updates and is generally a space that has been reserved within a building. With a cold backup site, everything that is required to restore service must be delivered to the site. Although cold backup sites are the least expensive way of backing up data, they involve downtime to restore service to the users since they cannot access the database during the recovery process.

A **warm backup site** is a site that is already equipped with hardware that contains a backup of the information that is contained in the data center. Before you can use a warm backup site to restore service, the most recent backups from the remote storage facility must be delivered before recovery can begin. Although a warm backup site contains backups, the information may be incomplete due to the fact that the backup may have been sent to the facility as much as one week ago.

A **hot backup site** is the most efficient and expensive means of disaster recovery. With a hot backup site, users can continue to access the database while restoration is in process. Recovery can take place within a few hours due to the fact that the hot backup contains a replica of the current data in the data center. The only item that needs to be added is the latest backups from the off-site storage facility.

Offsite backup sites can be provided by organizations that specialize in disaster recovery, a location within your own organization, or a shared facility by multiple organizations.

## 1. Ответьте на вопросы.

1. What disastrous events can disrupt even the most sophisticated computer systems?
2. Differentiate between natural and man-made disasters.
3. What is a disaster recovery plan? Why is it so important for companies and organizations?
4. Assess the importance of data safety to network security.
5. What is the most effective way to avoid data loss?
6. Describe the process of hard disk imaging.
7. What are the advantages of online data backup?
8. Name the most common external storage devices.
9. What is a backup site? What are the three basic types of backup sites?

10. Characterize a cold backup site. Why does it involve downtime to restore service to the users?
11. Describe a warm backup site. Does a warm backup site contain backups?
12. Explain why a hot backup site is considered the most efficient means of disaster recovery.

### **Практическое занятие № 5.**

**Тема:** Виды восстановления данных. Герундий/Инфинитив. Повторение.

**Цель:** Введение и закрепление лексического и грамматического материала.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить словарь к тексту, прочитать и перевести текст, упр.1-2.

## **DIFFERENT TYPES OF DATA RECOVERY SYSTEMS**

There are several different types of data recovery systems that organizations and businesses use to recover data. Before you choose the type of data recovery system that is appropriate for your organization, you must assess all of the critical levels of your data and systems to determine a policy and recovery system that will be well-suited to your organization.

Assuming you have done the data assessments, there are several different types of recovery that you can use in the event of data loss.

### **Bare Metal Recovery**

Bare metal recovery involves backing up the entire system including the operating system, software applications, and data. In the event of data loss, bare metal recovery allows you to restore the entire operating system in a single procedure which reduces the recovery time by hours. This prevents you from having to reformat everything from scratch by reinstalling the operating system, software applications, and restoring the data and settings.

### **Online Disk Backup**

With online disk backup you can backup your data more frequently which is ideal for data that is constantly changing on a daily basis. An online disk backup service also provides tiered recovery architecture which provides more flexibility and options with organizations that require frequent critical data backup and intermittent backup for data that is not as critical.

Online disk backup is a time saver as well as a money saver. It is important to note that you should do your homework when choosing an online disk backup service to ensure they are reliable and enforce security policies and regulations.

### **Continuous Data Protection**

Continuous data protection (CDP) is also known as continuous backup and saves time in the recovery process because it contains a dual purpose method of backing up data. With continuous data protection, you can backup data on your local area network onsite while simultaneously backing up the data to an offsite location. If the organization suffers data loss onsite, the CDP can tap into the offsite data backup system.

In addition to a dual method of backing up data, a continuous data protection backup creates a log of complete storage snapshots as well as any modifications to the data that occur since the last backup. The installation of a continuous data protection system is fairly straightforward and it contains disk storage, recovery time is almost immediate.

Continuous data protection is gaining momentum with a lot of organizations due to its ability to continuously monitor and record all modifications to data and then backing it up both onsite and offsite.

### **1. Перевести словосочетания из текста на английский язык.**

1. различные типы систем восстановления данных
2. тип системы восстановления данных, подходящий для вашей организации
3. оценить все критические уровни данных
4. определить стратегию и систему восстановления
5. допустим, вы провели оценку данных
6. автоматическое восстановление системы (*буквально* – «восстановление голого железа»)

7. автоматическое восстановление системы (восстановление исходного состояния системы) предусматривает резервное копирование целой системы
8. сокращать на часы время восстановления
9. это освобождает вас от необходимости переформатировать всё с са-мого начала
10. путём переустановки операционной системы, программных приложе-ний и восстановления данных и установочных параметров
11. оперативное резервное копирование диска
12. ярусная архитектура восстановления
13. обеспечивать гибкость и дополнительные возможности
14. периодическое копирование данных, не являющихся критическими
15. способ сбережения как времени, так и денег
16. следует провести предварительную работу
17. быть уверенным, что они надёжны и отвечают требованиям и нор-мам безопасности
18. непрерывная защита данных
19. двойной метод резервного копирования
20. делать резервные копии по локальной компьютерной сети на месте

## **2. Переведите на русский язык, обращая внимание на разные формы герундия:**

1. Watching football matches may be exciting enough, but of course it is more exciting playing football.
2. She stopped coming to see us, and I wondered what had happened to her.
3. Can you remember having seen the man before?
4. She was terrified of having to speak to anybody, and even more, of being spoken to.
5. He was on the point of leaving the club, as the porter stopped him.
6. After being corrected by the teacher, the students' papers were returned to them.

### **Практическое занятие № 6.**

**Тема:** Виды восстановления данных. Герундий/Инфинитив. Повторение.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить пересказ текста, упр.2.

### **DIFFERENT TYPES OF DATA RECOVERY SYSTEMS**

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4. определить стратегию и систему восстановления
5. допустим, вы провели оценку данных
6. автоматическое восстановление системы (*буквально* – «восстановление голого железа»)
7. автоматическое восстановление системы (восстановление исходного состояния системы) предусматривает резервное копирование целой системы
8. сокращать на часы время восстановления
9. это освобождает вас от необходимости переформатировать всё с самого начала
10. путём переустановки операционной системы, программных приложений и восстановления данных и установочных параметров
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15. способ сбережения как времени, так и денег
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17. быть уверенным, что они надёжны и отвечают требованиям и нор-мам безопасности
18. непрерывная защита данных
19. двойной метод резервного копирования
20. делать резервные копии по локальной компьютерной сети на месте

### 2. В следующих предложениях замените придаточные дополнительные герундием с предлогом of:

*Образец: She thought she would go to the country for the week-end.  
She thought of going to the country for the week-end.*

1. I thought I would come and see you tomorrow.
2. I am thinking that I shall go out to the country tomorrow to see my mother.
3. What do you think you will do tomorrow?
4. I don't know now; I thought I would go to the zoo, but the weather is so bad that probably I shan't go.
5. I hear there are some English books at our institute book-stall now. - So you are thinking that you will buy some, aren't you?
6. I thought I would work in the library this evening, but as you have come, I won't go to the library.

## Практическое занятие № 7.

**Тема:** Виды восстановления данных. Герундий/Инфинитив. Повторение.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Сделать презентацию, составить вопросы к тексту.

### DIFFERENT TYPES OF DATA RECOVERY SYSTEMS

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3. оценить все критические уровни данных
4. определить стратегию и систему восстановления
5. допустим, вы провели оценку данных
6. автоматическое восстановление системы (*буквально* – «восстановление голого железа»)
7. автоматическое восстановление системы (восстановление исходного состояния системы) предусматривает резервное копирование целой системы
8. сокращать на часы время восстановления
9. это освобождает вас от необходимости переформатировать всё с самого начала



10. путём переустановки операционной системы, программных приложений и восстановления данных и установочных параметров
11. оперативное резервное копирование диска
12. ярусная архитектура восстановления
13. обеспечивать гибкость и дополнительные возможности
14. периодическое копирование данных, не являющихся критическими
15. способ сбережения как времени, так и денег
16. следует провести предварительную работу
17. быть уверенным, что они надёжны и отвечают требованиям и нормам безопасности
18. непрерывная защита данных
19. двойной метод резервного копирования
20. делать резервные копии по локальной компьютерной сети на месте

### **Практическое занятие № 8.**

**Тема:** Хищение персональных данных. Защита. Подготовка к зачету.

**Цель:** Введение и закрепление лексических и грамматических знаний по теме

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Изучить пункты с названиями способов защиты и сопоставить их нижеследующими пунктами, упр. 2-3.

### **DATA SECURITY**

**1. Изучите пункты с названиями способов защиты и сопоставьте их нижеследующими пунктами.**

1. Protect against Viruses
2. Implement Network Controls
3. Backup Data and Programs
4. Protect against Natural Disasters
5. Central Access to Hardware and Software
6. Separate and Rotate Functions

#### **A**

Lock physical locations and equipment.

Install a physical security system.

Monitor access 24 hours a day.

#### **B**

Make incremental backups, which are copies of just changes to files, at frequent intervals.

Make full backups, which copy all files periodically.

To protect files from natural disasters such as fire and flood, as well as from crimes and errors, keep backups in separate locations, in fireproof containers, under lock and key.

#### **C**

Install firewalls to protect networks from external and internal attacks.

Password-protect programs and data with passwords which cannot easily be cracked.

Monitor username and password use – require changes to passwords regularly.

Encrypt data.

Install a callback system

Use signature verification or biometric security devices (security devices that measure some aspect of a living being e.g. a fingerprint reader or an eye scanner) to ensure user authorization.

**D**  
Install uninterruptable power supplies and surge protectors (защита от скачков напряжения в сети)

**E**  
If functions are separate, then two or more employees would need to conspire to commit a crime.  
If functions are rotated (чередуются), employees would have less time to develop methods to compromise a program or system.  
Perform periodic audits.

**F**  
Use virus protection program.  
Use only vendor-supplied (фирменное) software or public domain (общедоступное ПО) or shareware products that are supplied by services that guarantee they are virus-free.

**2. Используйте информацию выше и составьте план мер, которые бы предотвратили или ограничили возникновение следующих угроз:**

Computer crime  
Viruses  
Disasters

**3. Как бы вы предотвратили нижеперечисленные ситуации. Используйте информацию выше. Сравните свои ответы с одногруппниками.**

1. You open an email attachment which contains a very destructive virus.
2. Someone guesses your password (the type of car you drive plus the day and month of your birth) and copies sensitive data.
3. Your hard disk crashes and much of your data is lost permanently.
4. Someone walks into your computer lab and steals the memory chips from all the PCs.
5. Your backup tapes fail to restore properly.

**Практическое занятие № 9.**

**Тема:** Хищение персональных данных. Защита. Подготовка к зачету.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Прочитать и перевести текст, ответить на вопросы, упр.3.

**1. Прочитайте и переведите текст.**

**DATA RECOVERY**

If you have lost files from your hard drive, don't panic! It's easy to recover deleted files whether you are using a Windows PC or Mac OS. You can undelete files with almost guaranteed success. The most important thing is to act as soon as you realize that the files are lost.

When a file is deleted from your computer it is not really deleted. It is simply removed from the directory of files in the folder. It's a bit like removing the name of a chapter from the index of a book. Even though you can no longer see the file in the folder, its contents still exist 100% intact at this point.

Because the OS doesn't immediately re-use space from deleted files, a file can be recovered or unerased right after it has gone and for a considerable time afterwards. The longer you leave it, the less chance you have of getting the data back because eventually some or all of the space that held your lost data will be re-used by other files. The sooner you try to recover your deleted files, the greater your chances of success.

The chances of data recovery will also depend on how full the hard drive is. Windows operating system will try to avoid reusing disk space that has been recently freed, in order to give recovery software a better chance of performing its task. But as the drive gets near to its full capacity, there will be a better

chance that free space gets reused by other files sooner. If you happen to defragment the hard drive after the file was deleted, then this will seriously affect the chances of a file recovery process. The free space left by deleted files will be occupied by current files due to the fragmentation process, making it much less likely that undelete software could find anything useful.

Tools that can help you undelete files are not provided as standard in any operating system. So to recover deleted files you will need undelete software from a third party. Undelete software will understand the internals of the operating system that was used to store files on a disk and find exact location of the disk space that was occupied once by a deleted file. Because the space isn't reused immediately there is a very good chance that you will recover the deleted file 100% intact. If you are a Microsoft Windows user, there are third party tools available such as Uneraser and Data Recovery Wizard. They use deep search methods and sophisticated recovery algorithms to provide the best possible recovery rates. It is possible even to restore files from lost or corrupted partitions.

One of the cardinal rules of data recovery is that you must never write to the disk that contains the files you want to restore. This is because anything that gets written to the drive could potentially be written to the same space that was holding e-data you hope to recover. You should save the files that have been recovered to a different drive such as an external drive, network share or a USB memory stick.

## **2. Ответьте на вопросы.**

1. Why do people often panic when they lose files from their hard drive? Do you panic if such things happen to you?
2. "When a file is deleted from your computer it is not really deleted". Explain this statement.
3. Why is it possible to recover a file after it has gone?
4. Why should you try to recover a deleted file as soon as possible? What could happen if a long time has gone after your file was deleted?
5. How do the chances of data recovery depend on how full the hard drive is?
6. Is it possible to restore the file if you happen to defragment the hard drive after the file was deleted? What happens with the free space in case of hard drive defragmentation?
7. Are tools to recover deleted files provided as standard in any operating system?
8. Is the free space left by a deleted file reused immediately after the file was deleted?
9. How does an undelete software program work? Name some third party tools available for Microsoft Windows users.
10. What is one of the cardinal rules of data recovery? How should you save the files that have been recovered?

## **3. Представьте, что вы потеряли очень важные данные со своего жесткого диска. Составьте алгоритм действий по их восстановлению.**

### **Практическое занятие № 10.**

**Тема:** Хищение персональных данных. Защита. Подготовка к зачету.

**Цель:** Закрепление и систематизация знаний по теме, совершенствование навыков говорения, чтения, письма.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

**Задание:** Составить пересказ текста.

### **1. Перескажите текст.**

#### **DATA RECOVERY**

If you have lost files from your hard drive, don't panic! It's easy to recover deleted files whether you are using a Windows PC or Mac OS. You can undelete files with almost guaranteed success. The most important thing is to act as soon as you realize that the files are lost.

When a file is deleted from your computer it is not really deleted. It is simply removed from the directory of files in the folder. It's a bit like removing the name of a chapter from the index of a book. Even though you can no longer see the file in the folder, its contents still exist 100% intact at this point.

Because the OS doesn't immediately re-use space from deleted files, a file can be recovered or uneraser right after it has gone and for a considerable time afterwards. The longer you leave it, the less chance you have of getting the data back because eventually some or all of the space that held your lost data will be re-used by other files. The sooner you try to recover your deleted files, the greater your chances of success.

The chances of data recovery will also depend on how full the hard drive is. Windows operating system will try to avoid reusing disk space that has been recently freed, in order to give recovery software a better chance of performing its task. But as the drive gets near to its full capacity, there will be a better chance that free space gets reused by other files sooner. If you happen to defragment the hard drive after the file was deleted, then this will seriously affect the chances of a file recovery process. The free space left by deleted files will be occupied by current files due to the fragmentation process, making it much less likely that undelete software could find anything useful.

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### **Практическое занятие № 11.**

**Тема:** Контрольная работа.

**Цель:** Контроль лексических и грамматических навыков, словарного запаса обучающихся.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

#### **Тест**

- 1. Выберите правильную форму герундия или инфинитива:**

She agreed ... her friend.

- a) marrying
- b) marry
- c) to marry

**2. Выберите правильную форму герундия или инфинитива:**

He decided ... his first trip.

- a) to plan
- b) planning
- c) to planning

**3. Выберите правильную форму герундия или инфинитива:**

I don't remember ... the poem.

- a) to learning
- b) to learn
- c) learning

**4. Выберите правильную форму герундия или инфинитива:**

Don't stop, please! Go on ....

- a) reading
- b) read
- c) to read

**5. Выберите правильную форму герундия или инфинитива:**

You are not allowed ...here.

- a) parking
- b) to park
- c) park

**6. Выберите правильную форму герундия или инфинитива:**

They go on ...

- a) working
- b) to work
- c) toworking

**7. Выберите правильную форму герундия или инфинитива:**

Mum won't let me ... to the beach today.

- a) to go
- b) go
- c) going

**8. Выберите правильную форму герундия или инфинитива:**

I heard her ... in New York.

- a) to sing
- b) singing
- c) to singing

**9. Выберите правильную форму герундия или инфинитива:**

He made her son ... down the music

- a) to turn
- b) turn
- c) turning

**10. Выберите правильную форму герундия или инфинитива:**

I want him ... to the party.

- a) invite
- b) to be invited
- c) inviting

**11. Выберите правильную форму герундия или инфинитива:**

Will you let me ... to the party?

- a) go

b) going

c) to go

**12. Выберите правильную форму герундия или инфинитива:**

She agreed ... her boyfriend.

a) marrying

b) to be married

c) to marry

**13. Выберите правильную форму герундия или инфинитива:**

He decided ... his first trip.

a) to plan

b) to planning

c) planning

**14. Выберите правильный вариант перевода, обращая внимание на герундий:**

My hobby is driving a car.

a) Он водит машину.

b) Мое хобби – вождение машины.

c) Он умеет водить машину.

**15. Выберите правильный вариант перевода, обращая внимание на герундий:**

Excuse me for not answering your letter.

a) Простите, что не ответил на ваше письмо.

b) Простите, что не написал вам письмо.

c) Извините, что не отправил письмо.

**16. Выберите правильный вариант перевода, обращая внимание на герундий:**

He liked reading adventure books.

a) Он любит читать о приключениях.

b) Он любил читать.

c) Ему нравилось читать приключенческие книги.

**17. Выберите правильный вариант перевода, обращая внимание на герундий:**

He didn't like being looked at.

a) Он не любил смотреть.

b) Он не любил, когда на него смотрят.

c) Ему нравилось смотреть.

**18. Выберите правильный вариант перевода, обращая внимание на герундий:**

They spoke about travelling to the South.

a) Они поехали на юг.

b) Они хотели поехать на юг

c) Они говорили о поездке на юг.

**19. Выберите правильный вариант перевода, обращая внимание на герундий:**

Did you have any difficulty in solving this problem?

a) Ты смог решить эту проблему.

b) У тебя были трудности при решении этой проблемы?

c) Эту проблему трудно было решить?

**20. Выберите правильный вариант перевода, обращая внимание на герундий:**

He avoided being seen.

a) Он избегал встреч.

b) Он избегал, чтобы его видели.

c) Его избегали.

## Практическое занятие № 12.

**Тема:** Дифференцированный зачет.

**Цель:** Контроль умений и навыков практического владения английским языком.

**Перечень оборудования для проведения работы:** тетрадь, письменные принадлежности, словарь.

### Контрольные задания к дифференцированному зачету

Лексические темы	Грамматические темы
1. Вирусы	3. Причастие I, II
2. Восстановление данных	4. Герундий

#### Вариант I

**1. Прочтите и переведите текст, выполните задания к тексту.**

#### PROTECTING INFORMATION SYSTEMS: COMPUTER VIRUSES

Another critical security challenge is presented by **computer viruses**, hidden programs that can work their way into computer systems and erase or corrupt data and programs. Viruses are programs that secretly attach themselves to other programs or files, known as the **host**, and change them or destroy data. Viruses can be programmed to become active immediately or to remain dormant for a period of time, after which the infections suddenly activate themselves and cause problems.

A virus can reproduce by copying itself onto other programs stored in the same drive. It spreads as users install infected software on their systems or exchange files with others, usually by exchanging email, accessing electronic bulletin boards, trading disks, or downloading programs or data from unknown sources on the Internet. Because so many computers are interconnected, viruses can spread quickly, infecting all the computers linked on a local area network and then spreading over the Internet to other computers and networks. The Melissa virus infected 350,000 computers in the United States and Europe. The Mydoom virus infected a quarter-million computers in a single day in January 2004. The so-called "Love Bug" virus alone caused an estimated \$15 billion in damage. Viruses can do more damage today than ever before and cost organizations billions of dollars each year. Most viruses are created by black-hat hackers and involve outright vandalism or crime.

Each virus is given a name e.g. "Love Bug" or "Melissa" and can be classified as a particular type of virus. The main virus types include:

**logic bombs** that destroy data when triggered

**boot sector viruses** that store themselves in the boot sector of a disk

**file viruses** that attach themselves to COM files (programs that have a COM extension e.g. command.com)

**macro viruses**, often written in the scripting languages for Microsoft programs such as Word or Excel, are spread in Microsoft Office by infecting documents and spreadsheets

**email viruses** which use email messages as a mode of transport and copy themselves by automatically mailing copies to hundreds of people in the victim's address book

**companion viruses** that instead of modifying an existing file, create a new program which is executed instead of the intended program

**cross-site scripting viruses** that utilize cross-site scripting vulnerabilities to replicate

**polymorphic viruses** that not only replicate themselves by creating multiple files of themselves, but also change their digital signature every time they replicate

Two other types of malware – **Trojan horses** and **worms** – are often classified as viruses, but are actually forms of distributing malware.

**Trojan horses** are impostor files that claim to be something desirable but, in fact, are malicious. A Trojan horse appears to do one thing (install a screen saver, or show a picture inside an email for example) when in fact it does something entirely different, and potentially malicious, such as erase files. Trojans can also open backdoors so that computer hackers can gain access to passwords and other personal information stored on a computer. Trojans don't copy themselves or reproduce by infecting other files.

**Worms** are self-copying programs that have the capacity to move from one computer to another

without human help, by exploiting security flaws in computer networks. Worms are self-contained and don't need to be attached to a document or program the way viruses do. It is note-worthy that different types of malicious software (worms, Trojan horses, adware, spyware, etc.) are generally referred to as viruses though true computer viruses make up only a small subset of malware. For example, "ILOVEYOU" ("Love Bug") or "Melissa" are two examples of worms.

As viruses become more complex, the technology to fight them must increase in sophistication as well. The simplest way to protect against computer viruses is to install one of the many available antivirus software programs, such as Norton Anti-Virus and McAfee Virus Scan. There is no way to entirely stop the spread of computer viruses, because new ones are created all the time. However, a number of excellent "vaccine" programs exist that search for and destroy viruses and prevent new ones from infecting your computer system.

These programs continuously monitor systems for viruses and automatically eliminate any they spot. Anti-virus and anti-malware programs can provide real-time protection against the installation of malware on a computer. The software scans disk files at download time, and blocks the activity of components known to represent malware. Users should regularly update antivirus software programs by going online to download the latest virus definitions.

But management must begin to emphasize security at a deeper level: in software design, corporate servers, Web gateways, and Internet service providers. Because around 80 percent of the world's PCs run on Microsoft operating systems, a single virus can spread quickly among them. Computer users should carefully choose the files they load onto their systems, scan their systems regularly, make sure their antivirus software is up-to-date, and install software only from known sources. They should also be very careful when opening attachments to emails, since this is the way many viruses are spread.

## **2. Выберите правильный вариант ответа.**

1. *A computer virus is*

- a) the name given to unwanted messages, mainly commercial advertising
- b) a visible program which accidentally attaches itself to other programs and can be easily deleted by the user
- c) a hidden program which secretly attaches itself to other programs and changes them or destroys data

2. *Viruses are programmed*

- a) to activate themselves immediately after the infected software has been installed
- b) to remain dormant for a certain period of time
- c) either to become active immediately or to remain dormant for a period of time

3. *True computer viruses include*

- a) macro viruses, email viruses, and worms
- b) macro viruses, email viruses, and logic bombs
- c) Trojans and worms

4. *A logic bomb is a virus*

- a) which is set to trigger when specific conditions are met
- b) which is spread in Microsoft Office by infecting documents and spreadsheets
- c) which uses email messages as a mode of transport

5. *One of the most dangerous viruses is a virus that changes its digital signature every time it replicates. Such viruses are very difficult to detect. They are called*

- a) macro viruses
- b) micro viruses
- c) polymorphic viruses



6. A program that can open a backdoor to the computer so that crackers can gain access to sensitive information is known as

- a) a worm
- b) a Trojan horse
- c) an adware

7. Programs that replicate themselves from system to system without the use of a host file are known as

- a) worms
- b) Trojans
- c) true viruses

8. Unlike viruses, worms don't need to be attached to a document or program as they are

- a) self-confident
- b) self-controlled
- c) self-contained

9. Love Bug, Mydoom and Melissa are the examples of

- a) true viruses
- b) worms
- c) Trojans

10. The main difference between the terms "viruses" and "malware" is that

- a) viruses are much more dangerous than other types of malware
- b) all other types of malware are much more dangerous than viruses
- c) all viruses are malwares but not all malwares are viruses

11. The simplest way to protect against computer viruses is

- a) to have no computer at all
- b) to monitor access 24 hours a day
- c) to use reliable and up-to-date anti-virus and anti-malware software

### **3. Ответьте на вопросы.**

1. What is a computer virus? How does a computer virus work?
2. What are the ways viruses spread? Why can viruses spread so quickly?
3. Name some of the famous viruses used to spread worldwide.
4. Enumerate the main types of true viruses. Which of the virus types given in the text do you think to be the most dangerous and why?
5. Describe a malicious program called "a Trojan horse".
6. Explain what a computer worm is.
7. How do Trojans and worms differ from true viruses?
8. How do "vaccine" anti-virus programs work?
9. What is real-time protection provided by anti-virus and anti-malware programs?
10. Name the main steps individuals and organizations should take to prevent viruses.

### **4. Выберите из скобок требующуюся форму причастия:**

1. a) The girl (writing, written) on the blackboard is our best pupil.  
b) Everything (writing, written) here is quite right.
2. a) The house (surrounding, surrounded) by tall trees is very beautiful.  
b) The wall (surrounding, surrounded) the house was very high.
3. a) Who is that boy (doing, done) his homework at that table?  
b) The exercises (doing, done) by the pupils were easy.
4. a) The girl (washing, washed) the floor is my sister.

b) The floor (washing, washed) by Helen looked very clean.

## 5. Замените придаточные определительные предложения причастными оборотами:

*Образец: All the people who live in this house are students.  
All the people living in this house are students.*

1. The woman who is speaking now is our secretary.
2. The apparatus that stands on the table in the corner of the laboratory is quite new.
3. The young man who helps the professor in his experiments studies at an evening school for laboratory workers.
4. People who take books from the library must return them in time.
5. There are many pupils in our class who take part in all kinds of extra-curricular activities.

## Вариант II

### 1. Прочтите и переведите текст, выполните задания к тексту.

#### PROTECTING INFORMATION SYSTEMS: DISASTER RECOVERY AND BACKUP

Natural disasters, power failures, equipment malfunctions, software glitches, human error, and terrorist attacks can disrupt even the most sophisticated computer systems. Man-made disasters can range from a catastrophic operator error to a deliberate attempt to cause damage. Mistakes can cause data loss, power outages, and a wide variety of other problems. We can often stop disasters caused by man, but there is nothing we can do that can stop the natural disasters. These natural disasters such as floods, earthquakes, hurricanes, volcanoes, tsunamis, or wildfire are unpredictable and within a short span of time can destroy information and communication systems. Whether a disaster is natural or man-made, companies and organizations must be ready to respond to it quickly and effectively. As IT systems have become increasingly critical to the smooth operation of a company, the importance of ensuring the continued operation of those systems, and their rapid recovery, has increased.

One of the most important aspects of disaster recovery is to have a solid disaster recovery plan. Disaster recovery means bringing IT systems and functions back online after a disruption. A disaster recovery plan is intended to keep a company as functional as possible during a disaster and to help the company recover quickly in the event of a disaster. This plan also includes disaster prevention programs – decisions on how to prevent computer system failures.

Data safety is a problem of paramount importance. For example, of companies that had a major loss of business data, 43% never reopen and 29% close within two years. The most effective way to avoid the loss of data is to create frequent backups of your files. If this data is really sensitive, it is important to store at least two copies of it and keep at least one copy in a secure, remote location. In IT, a backup, or the process of backing up, refers to the copying and archiving of computer data so it may be used to restore the original after a data loss event. Some methods of backup are more reliable than others, while others may be more convenient than some. In order to protect your business data, it is important to have a solution that is both reliable and convenient.

**Hard disk imaging**, often referred to as cloning, is one of the most popular and efficient methods of storing important data. This type of system saves every piece of data on your hard drive. This unique process allows you to create a mirror image of a disk at a specific point of time. A disk image can be compared to a photo image. It is capable of being recreated into the actual contents, just as a photograph can be used to recreate a specific scene at a specific point in the past. In the event of a complete system failure, the data on your hard disk can be easily recreated in its entirety, even your partitions and file system. It is also the fastest and easiest method of data backup, enabling you to quickly restore data following an unexpected catastrophe.

**Online data backup** is a solution growing in popularity. This type of solution calls for your data to be stored on a secure server in a remote location. With online data backup, your data is safe; the computer

encrypts your files before sending them, and files are secured with password protection. Backups can be done automatically and data is available anywhere in the world at any time.

Another good option for backing up your business data are **external storage devices**. These are simple, affordable and come in many different forms. The most common devices are external hard drives and modern inventions, such as encrypted flash drives.

One of the most critical aspects of network security is to have a location from which the recovery can take place. This location is known as a **backup site**. In the event of a disaster, a backup site is where your data center will be recreated, and where you will operate from, during the disaster. There are three basic types of backup sites: cold, warm, and hot. (These terms do not refer to the temperature of the backup site; instead, they refer to the effort required to begin operations at the backup site in the event of a disaster).

A **cold backup site** is an offline database that is not accessible for updates and is generally a space that has been reserved within a building. With a cold backup site, everything that is required to restore service must be delivered to the site. Although cold backup sites are the least expensive way of backing up data, they involve downtime to restore service to the users since they cannot access the database during the recovery process.

A **warm backup site** is a site that is already equipped with hardware that contains a backup of the information that is contained in the data center. Before you can use a warm backup site to restore service, the most recent backups from the remote storage facility must be delivered before recovery can begin. Although a warm backup site contains backups, the information may be incomplete due to the fact that the backup may have been sent to the facility as much as one week ago.

A **hot backup site** is the most efficient and expensive means of disaster recovery. With a hot backup site, users can continue to access the database while restoration is in process. Recovery can take place within a few hours due to the fact that the hot backup contains a replica of the current data in the data center. The only item that needs to be added is the latest backups from the off-site storage facility.

Offsite backup sites can be provided by organizations that specialize in disaster recovery, a location within your own organization, or a shared facility by multiple organizations.

## 2. Выберите правильный вариант ответа.

1. *Can people stop disasters?*

- a) We can often stop natural disasters, but there is nothing we can do that can stop disasters caused by man.
- b) We can often stop disasters caused by man, but there is nothing we can do that can stop the natural disasters.
- c) We can stop any disaster regardless of whether it is natural or man-made. 79

2. *A disaster recovery plan is intended*

- a) to estimate the cost of damage in the event of a disaster
- b) to ensure psychological recovery of people in the event of a disaster
- c) to decide how to prevent system failures and continue operations if computer systems fail

3. *One of the most important aspects of disaster recovery is*

- a) data verification
- b) data transmission
- c) data safety

4. *In order to avoid an untimely disaster, the best insurance policy involves frequently*

- a) scrambling all important data
- b) backing up all important data
- c) compressing all important data

5. *The fastest and easiest method of data backup is*

- a) hard disk imaging
- b) online data backup
- c) the use of external storage devices

6. *Hard disk imaging is often referred to as*

- a) online backup
- b) offsite backup
- c) cloning

7. *There are many advantages to online backup, including:*

- a) The data can be easily recreated in its entirety, even partitions and the file system.
- b) The device is very small so you can carry it with you and it plugs into any PC with a USB port.
- c) By having your data stored on a remote hard drive, you run little or no risk of losing your data as a result of fire, theft, or any other disaster

8. *A location where a business can easily relocate following a disaster, such as a fire, flood, or terrorist attack, is known as*

- a) a backup host
- b) a backup file
- c) a backup site

9. *What do the terms “cold”, “warm” and “hot” refer to when describing the backup site?*

- a) These terms refer to the temperature of the backup site.
- b) These terms refer to the season at which the backup site begins to function (is made operational).
- c) These terms refer to the effort required to begin operations in the event of a disaster.

10. *With a hot backup site,*

- a) users cannot access the database during the recovery process
- b) users can continue to access the database while restoration is in process
- c) users have access to the database but the information is incomplete

11. *A backup site where the most recent backups from the remote storage facility must be delivered before recovery can begin is called*

- a) a cold backup site
- b) a warm backup site
- c) a hot backup site

12. *Offsite backup sites can be provided*

- a) exclusively by organizations that specialize in disaster recovery
- b) by organizations that specialize in disaster recovery, or a shared facility by multiple organizations
- c) by organizations that specialize in disaster recovery, a location within your own organization, or a facility shared by multiple organizations

**3. Ответьте на вопросы.**

1. What disastrous events can disrupt even the most sophisticated computer systems?
2. Differentiate between natural and man-made disasters.
3. What is a disaster recovery plan? Why is it so important for companies and organizations?
4. Assess the importance of data safety to network security.
5. What is the most effective way to avoid data loss?
6. Describe the process of hard disk imaging.
7. What are the advantages of online data backup?
8. Name the most common external storage devices.
9. What is a backup site? What are the three basic types of backup sites?
10. Characterize a cold backup site. Why does it involve downtime to restore service to the users?
11. Describe a warm backup site. Does a warm backup site contain backups?
12. Explain why a hot backup site is considered the most efficient means of disaster recovery.

**4. Переведите на русский язык, обращая внимание на разные формы герундия:**

1. Watching football matches may be exciting enough, but of course it is more exciting playing football. 2. She stopped coming to see us, and I wondered what had happened to her. 3. Can you remember having seen the man before? 4. She was terrified of having to speak to anybody, and even more, of being spoken to. 5. He was on the point of leaving the club, as the porter stopped him. 6. After being corrected by the teacher, the students' papers were returned to them.

**5. В следующих предложениях замените придаточные дополнительные герундием с предлогом of:**

*Образец: She thought she would go to the country for the week-end.  
She thought of going to the country for the week-end.*

1. I thought I would come and see you tomorrow. 2. I am thinking that I shall go out to the country tomorrow to see my mother. 3. What do you think you will do tomorrow? 4. I don't know now; I thought I would go to the zoo, but the weather is so bad that probably I shan't go. 5. I hear there are some English books at our institute book-stall now. - So you are thinking that you will buy some, aren't you? 6. I thought I would work in the library this evening, but as you have come, I won't go to the library.

## 5. Информационное обеспечение обучения

Перечень рекомендуемых учебных изданий, Интернет-ресурсов, дополнительной литературы.

### Основные источники:

1. Гарагуля, С.И. Английский язык в сфере информационных систем и технологий=English for Information Systems and Technology: учебник / Гарагуля С.И. — Москва : КноРус, 2018. — 421 с.
2. Голубев, А.П. Английский язык для всех специальностей. : учебник / Голубев А.П., Балюк Н.В., Смирнова И.Б. — Москва : КноРус, 2020. — 385 с. — (СПО).
3. Карпова, Т.А. English for Colleges = Английский язык для колледжей. Практикум + Приложение : тесты. : учебно-практическое пособие / Карпова Т.А., Восковская А.С., Мельничук М.В. — Москва : КноРус, 2020. — 286 с. — (СПО).
4. Кукушкин, Н.В. Английский язык для колледжей: учебное пособие / Кукушкин Н.В. — Москва : Русайнс, 2018. — 296 с.
5. Радовель, В.А. Английский язык в программировании и информационных системах. : учебное пособие / Радовель В.А. — Москва : КноРус, 2019. — 239 с. — (СПО)

### Дополнительные источники:

1. Бессонова А.Н. Английский язык для инженеров: компьютерное дело и безопасность информационных систем. Учебное пособие / А.Н. Бессонова. – Хабаровск: Изд-во ДВГУПС, 2014. – 127 с.
2. Veretennikova V.P. English for Radio Engineering and TV broadcasting: учебное пособ./ Veretennikova V.P., Zavalevskaya E.V. – Odessa: A.S. Popov ONAT, 2015. –208 с.
3. Сердюкова Н.А. Английский язык. Учебное пособие для обучающихся второго курса колледжа. – Белгород. ОГАПОУ Белгородский индустриальный колледж, 2016.
4. Cunningham J., Redston C. Face2face by Cambridge University Press: Elementary Student's book /Cunningham J., Redston C. - The Edinburgh Building, Cambridge CB2 8RU, UK, 2005.-160 p.
5. Cunningham J., Redston C. Face2face by Cambridge University Press: Elementary Workbook/ Cunningham J., Redston C. - The Edinburgh Building, Cambridge CB2 8RU, UK, 2005.- 88 p.
6. Murphy R. English grammar in use by Cambridge University Press: A self-study reference and practice book for intermediate learners of English. Third edition/ Murphy R. - The Edinburgh Building, Cambridge CB2 8RU, UK, 2004.-379 p.

### Интернет- ресурсы:

<http://education.com>

<https://resh.edu.ru/>

[www.britishcouncil.org/learnenglish](http://www.britishcouncil.org/learnenglish)

<http://lessons.study.ru>

<https://elearning.academia-moscow.ru/personal/courses/>

<http://www.lyricstraining>