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**«**Белгородский индустриальный колледж»

Электронные методические указания по организации

практических работ по дисциплине английский язык

для студентов 4-5 курса

по специальности

11.02.10 Радиосвязь, радиовещание и телевидение

Разработчик:

Должикова Галина Михайловна

преподаватель английского языка

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**Пояснительная записка**

На современном этапе развития российского образования весьма актуальной остается проблема повышения качества профессиональной подготовки студентов колледжа при обучении английскому языку с учетом требований World Skills International. World Skills International, целью которой является повышение статуса и стандартов профессиональной подготовки и квалификации. Поэтому ориентация на требования данной ассоциации к подготовке студентов колледжа по рабочим специальностям при обучении английскому языку представляется важным компонентом их образования. Практическое владение профессионально ориентированным английским языком становится значимым показателем качества подготовки будущего специалиста и является существенным компонентом профессиональной деятельности. Вышесказанное доказывает необходимость готовить специалистов не только со знанием английского языка, но и с намерением осуществлять профессиональное межкультурное общение и взаимодействие в области профессиональной деятельности.

Цельюпрактических работ по дисциплине «Иностранный язык в профессиональной сфере» является проведение практических занятий для достижения учащимися уровня активного практического владения английским языком, позволяющего им читать и понимать профессиональные тексты на английском языке. Понимать и использовать структуры языка для решения профессиональных задач и в ситуациях речевого общения в повседневной жизни и профессиональной сфере.

Практические занятия содержат тематические текстовые материалы, упражнения на расширение словарного запаса, тренировочные задания для активизации знаний грамматических форм и синтаксических оборотов.

Задачи практических занятий:

- расширение активного словаря обучающихся, в частности, профессиональной лексики;

- активизация знаний грамматического материала, а также закрепление знаний об особенностях употребления и перевода грамматических структур в технических текстах;

- закрепление навыков устного и письменного перевода специальных текстов;

- формирование профессиональной компетенции студентов средствами иностранного языка путем извлечения профессионально-ориентированной информации из иноязычных источников;

Целью практических работ по дисциплине «Иностранный язык» является проведение практических занятий и овладение фундаментальными знаниями, профессиональными умениями и навыками по профилю изучаемой дисциплины, закрепление и систематизация знаний, формирование умений и навыков и овладение опытом творческой, исследовательской деятельности.

Практические занятия содержат  тематические текстовые материалы, упражнения на расширение словарного запаса и образование потенциального профессионального словаря, грамматические таблицы, тренировочные задания для активизации знаний грамматических форм и синтаксических оборотов.

Цель практических занятий:

- формировать у студентов навыки устной речи по профессиональной тематике;

- развивать потребность и умение пользоваться справочной литературой;

- развивать умение высказываться целостно, как в смысловом, так и в структурном отношении;

- развивать навыки чтения с полным пониманием основного содержания текста;

- активизировать знание грамматических форм и синтаксических оборотов, употребительных в специальной литературе.

В результате студент осваивает следующие общие компетенции:

ОК1.Понимать сущность и социальную значимость своей будущей профессии, проявлять к ней устойчивый интерес;

ОК2.Организовывать собственную деятельность, выбирать типовые методы и способы выполнения профессиональных задач, оценивать их эффективность и качество;

ОК3.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;

ОК5.Использовать информационно-коммуникационные технологии в профессиональной деятельности;

ОК 6. Работать в коллективе и в команде, эффективно общаться с коллегами;

ОК7.Брать на себя ответственность за работу членов команды, за результат выполнения заданий;

ОК8.Самостоятельно определять задачи профессионального и личностного развития, заниматься самообразованием, осознанно планировать повышение квалификации;

ОК9.Ориентироваться в условиях частой смены технологий в профессиональной деятельности.

Контроль и оценка результатов освоения  учебной дисциплины

Контроль и оценка результатов освоения учебной дисциплины осуществляется преподавателем в процессе проведения тестирования и дифференцированного зачета, а также выполнения обучающимися индивидуальных заданий, проектов, самостоятельных  работ. Критериями оценки результатов работы студента являются: обоснованность и четкость изложения ответа на поставленные вопросы, оформление учебного материала в тетради для практических работ.

Нормы оценок речевой деятельности студентов

Основным этапом работы над темой является работа над тематическим текстом. Иноязычный текст является источником информации. В зависимости от запрашиваемой информации выделяются три вида чтения:

1. чтение с общим охватом содержания (Reading for General Comprehension)
2. чтение с детальным пониманием прочитанного (Reading for Details)
3. поисковое чтение (Reading for Special Information)

Задача *чтения с общим охватом содержания* состоит в понимании общего смысла прочитанного без словаря. Этот вид чтения формирует умение вычленить основное содержание текста, игнорируя второстепенные детали и некоторые языковые трудности.

Задача *чтения с детальным пониманием* является полное понимание содержания прочитанного, достигаемое путём точного перевода со словарём. Лучше использовать специализированный словарь. Перевод иноязычного текста предполагает умение проводить лексико-грамматический анализ фразы, использовать знания, полученные на занятиях по специальным и общетехническим дисциплинам.

*Поисковое чтение* используется для нахождения в тексте интересующей информации. При этом виде чтения допускаются любые способы снятия языковых трудностей: словаря ил смысловой догадки.

Послетекстовые упражнения направлены на активизацию нового лексического материала, развитие лексико-грамматических навыков, на формирование умения строить индивидуальное монологическое высказывание по изучаемой теме.

*Самостоятельное* практическое владение студентом иноязычным чтением и переводом предполагает умение самостоятельно работать со специальной литературой на иностранном языке с целью получения необходимой информации для решения личностно значимых и профессиональных задач

Методические указания по учебной дисциплине «Иностранный (английский) язык» имеют практическую направленность и значимость. Формируемые в процессе практических занятий умения могут быть использованы студентами в будущей профессиональной деятельности.

Практические занятия проводятся в учебном кабинете, не менее двух академических часов. Оценки за выполнение практических работ выставляются по пятибалльной системе. Оценки за практические работы являются обязательными текущими оценками по учебной дисциплине.

Тестирование

Отметка "5" ставится в том случае, если поставленная  задача решена, студенты полностью поняли содержание задания, соответствующее программным требованиям по определённой теме.

Отметка "4" ставится в том случае, если поставленная  задача решена, студенты полностью поняли содержание задания, соответствующее программным требованиям по определённой теме за исключением отдельных подробностей, не влияющих на понимание содержания задания  в целом.

Отметка "3" ставится в том случае, если поставленная  задача решена, студенты поняли только основной смысл задания, соответствующего программным требованиям.

Отметка "2" ставится в том случае, если студенты проявили полное непонимание содержания задания, соответствующего программным требованиям.

Дифференцированный зачет

Отметка "5" ставится в том случае, если общение осуществилось, высказывания студентов соответствовали поставленной коммуникативной задаче, их устная речь полностью соответствовала нормам иностранного  языка в пределах программных требований для данного курса.

Отметка "4" ставится в том случае, если общение осуществилось, высказывания студентов соответствовали поставленной коммуникативной задаче, студенты выразили свои мысли на иностранном   языке   с   незначительными   отклонениями от языковых норм (ошибки в употреблении артиклей, предлогов неправильное   употребление   падежных   форм   и   т.д.), а в остальном их устная речь соответствовала нормам иностранного языка в пределах программных требований для данного курса.

Отметка "3" ставится в том случае, если общение осуществилось, высказывания студентов соответствовали поставленной коммуникативной задаче, студенты выразили свои мысли на иностранном языке с отклонениями от языковых норм, не мешающими, однако, понять содержание сказанного.

Отметка "2" ставится в том случае, если общение не осуществилось или высказывания студентов не соответствовали поставленной коммуникативной задаче, студенты слабо усвоили пройденный языковой материал и выразили свои мысли на иностранном языке с такими отклонениями от языковых норм, которые не позволяют понять содержание большей части сказанного.

Перечень практических работ

**Тематическое планирование**

**4 курс**

|  |  |  |
| --- | --- | --- |
| № п/п | Тема | Кол-во часов |
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|  | **Контрольная работа** | **2** |
|  | **Дифференцированный зачет** | **2** |

**Тематическое планирование**

**5 курс**

|  |  |  |
| --- | --- | --- |
| № п\п | Тема | Кол-во часов |
| **Раздел 9.** | **Компьютерные технологии.** | **22** |
| Тема 9.1. | История информационных технологий. Причастие II | 6 |
| Тема 9.2. | WWW. Причастие I/II | 4 |
| Тема 9.3. | Blue tooth. Герундий. | 4 |
| Тема 9.4 | Wi-Fi. Причастие и герундий. | 4 |
|  | **Контрольная работа** | **2** |
|  | **Дифференцированный зачет** | **2** |

# IV Курс, VII семестр

**Практическая работа №1**

Тема**:** Спутниковые системы.

Цель : - знакомство с лексикой

- развитие языковой догадки обучающихся

Artificial communicative satellites

1. a) Cover the right column and read the English words. Translate them into Russian

b) Cover the left column and translate the Russian words back into English.

to amplify ['aemplifai] усиливать

to curve гнуть, изгибать

to radiate излучать, освещать

to reflect отражать, отбрасывать

2. Read the words and put down their Russian equivalents.

active ['sektrv] '

atmosphere ['astmasfta]

ion ['aien]

orbit f'ofortl

passive ['passrv]

radiation [,reidi'eij**(3**)n]

3. Put down the missing words according to the model. Translate the words.

action

*Model:* to amplify

увеличивать

to radiate

to combine

doer

amplifier

усилитель

process

amplification

усиление

4. Put down the nouns. Translate the words.

*Model:* to curve — curve; изгибать

to place — ;

to change — ;

5. Master the following words.

art [a:t]

кривая, изгиб

artificial [,a:ti'fif**(3**)l]

part [pa:t]

surface ['s\_:fts]

upper ['лрэ]

искусство, мастерство

искусственный

часть, доля

поверхность

верхний

таким образом

2. Translate the following questions.

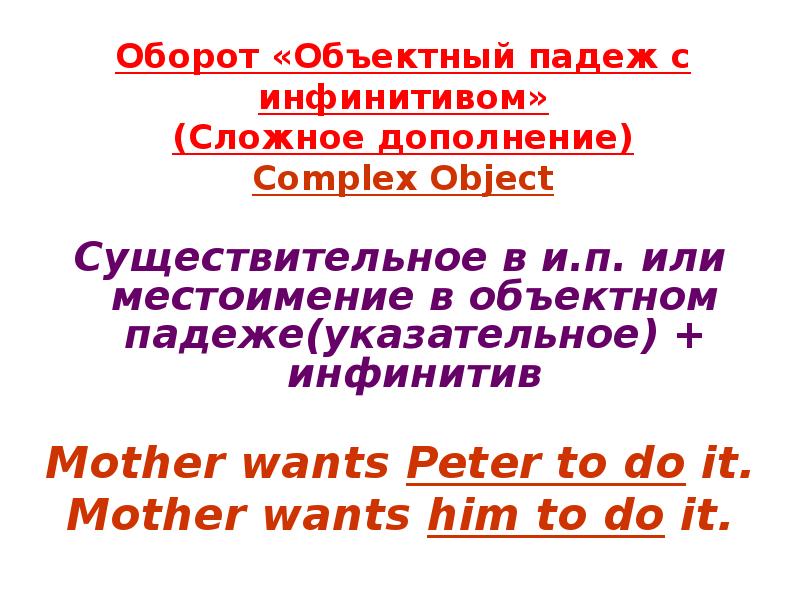
• What signals do artificial satellites relay?

• What purpose do they serve?

• What are the functions of active satellites?

• What makes it possible to carry out intercontinental transmission?

**Изучите таблицу образования сложного дополнения**

****

**Практическая работа №2**

Тема: Спутниковые системы.

Цель : - активизировать лексику

- находить нужную информацию из текста

1. Read the text. Find the answers to the questions given in work № 1

Artificial communication satellites are placed in an orbit around the earth. They relay radio and television signals around the curved surface of the Earth and thus serve the purpose of intercontinental radio and television transmission. There are two types of satellites in the orbit: active and passive. As for active satellites, they are used to receive, amplify, and retransmit signals вeing sent for the purpose of communication. The function of passive satellites is only **to** reflect the transmitted signals from the surface of the earth. Artificial satellites are being used to receive and reflect back information about the upper atmosphere and the ionosphere. It is a well-known fact that

the ionosphere forms part of the Earth's upper atmosphere. It reflects elecrotromagnetic radiations of radio frequencies, which makes it possible to carryout intercontinental radio transmission round the curved surface of the

Earth.

2. Translate the following questions and answer them.

• What signals do artificial satellites relay?

• What purpose do they serve?

• What are the functions of active satellites?

• What makes it possible to carry out intercontinental transmission?

**Упражнение   
  
Обратите внимание на перевод оборота объектный падеж с инфинитивом".**                                                       I  
1. Historians suppose the name "London" to come from two Celtic words.   
2. We sincerely wish good relations to be established between our two countries, -- said one of the delegates.   
3. In Middle Ages people believed the earth to be the centre of the Universe.   
4. We know Australia to be the only continent situated in the southern hemisphere.   
5. First we thought the small island to be uninhabited.   
6. Presently we saw him emerge from the station, cross the street and disappear into the building.   
7. At the Central Station, from behind a convenient pile of luggage the men watched the train come in.   
8. The whole problem is so important that I would like you to go over the facts once more.  
  
                                                        II   
9. It was explained that, although several authorities had included the Melanesian languages in the Malay-Polynesian family, Leenhardt thought them to be a separate family.   
10. All other indications showed death to have taken place slightly later than the approximate time put in the report.   
11. It is a carefully prepared essay which proves its author to be a man of cultivation, taste, imagination, education and refinement.   
12. We often hear people complain that the materialists seek to reduce everything in the world, including life and mind, to a system of soulless mechanisms. This refers to mechanistic materialism.   
13. Ever since I was a child I have watched and helped the men of my clan make their weapons.   
14. That language (German) which in Goethe and his contemporaries had achieved the highest excellence of precision of flexibility, we have seen in our time under the nazis reach the very depths to which a language can possibly descend.   
15. Supposing this conjecture to be well-founded, these objects acquire a peculiar interest as representing in a certain degree the actual work of the inhabitants.   
16. In short, an examination of the sources of the Modern English vocabulary shows beyond the possibility of contradiction the once prevalent notion that all modern European words were derived from roots equally old, and could be traced back to a single ancestral tongue, to be a mistake induced by a superficial uniformity presented by languages to their speakers

**Практическая работа №3**

Тема: Спутниковое телевидение.

Цель: - расширение словарного запаса

- учить самостоятельно работать с текстом

1.Прочтите текст и выпишите предложения с незнакомыми сдловами и переведите их письменно

Today you see dish- or horn-shaped microwave antennas nearly everywhere –on towers, buildings, and hilltops. Microwaves cannot bend around corners or around the earth’s curvature, they are “*line-of-site*”. Line-of-site means there must be an unobstructed view between transmitter and receiver.

Thus, microwave stations need to be placed within 25 – 30miles of each other, with no obstructions in between. The size of the dish varies with the distance (perhaps 2-4 feet in diameter for short distances, 10 feet or more for long distances).

A string of microwave relay stations will each receive incoming messages, boost the signal strength, and relay the signal to the next station. The airwaves are becoming so saturated with microwave signals that future needs will have to be satisfied by other channels, such as satellite systems. In due course, communication may thus need to be transferred to ground-based cellular mobile networks. Satellite technology is particularly suited to cover rural, sparsely populated areas. Moreover satellite systems have the important ability to offer an early service which only later becomes available in the standard fixed infrastructure. Earlier examples of this have been international satellite television program distribution and video conferencing, now also possible by broadband optical cables, intercontinental digital leased lines and 'hot lines' for journalists and statesmen

travelling in less developed regions. Satellites have successfully served telephony and broadcasting covering large geographical areas using single-beam transmission**.** Traditional satellite technology uses a broad single beam to cover entire continents and regions. The use of multiple narrowly focused spot beams and the reuse of frequencies have made it possible to increase bandwidth by a factor of 20 or more. Satellite broadband services are offered in five basic technology categories: band (4-6GHz), Ku-band (11-14GHz), Ka-band (20-30GHz), L-band (1.5-1.6GHz).

Mobile satellite communication has the potential to provide an infrastructure independent of terrestrial systems. Mobile satellite systems work like terrestrial cellular systems, except that the base stations (i.e., satellites) move as well

as mobile devices.

**Практическая работа №4**

Тема: Спутниковое телевидение.

Цель : -совершенствование навыков работы с текстом

1.Прочитайте текст, передайте главную мысль прочитанного

Satellite technology is particularly suited to cover rural, sparsely populated areas. Moreover satellite systems have the important ability to offer a nearly service which only later becomes available in the standard fixed infrastructure.

Earlier examples of this have been international satellite television program distribution and video conferencing, now also possible by broadband optical cables, Intercontinental digital leased lines and 'hot lines' for journalists and statesmen travelling in less developed regions Satellites have successfully served telephony and broadcasting covering large geographical areas using single-beam transmission.

**Практическая работа №5**

Тема: Сложное дополнение.

Цель: -знакомство с грамматическим материалом

- выполнение упражнений для закрепления грамматического материала

Оборот "Объектный падеж с инфинитивом" (Сложное дополнение)

(Complex Object)

Инфинитив с зависимыми словами представляет инфинитивную конструкцию или оборот.

Рассмотрим инфинитивный оборот Complex Object. По-русски он называется сложное дополне­ние, или объектный падеж с инфинитивом. Сложное дополнение состоит из существительного в именительном падеже или из местоимения в объектном падеже, за которым следует инфинитив.

Mother wants Peter to do it. (Состоит из существительного Peter и инфинитива to do.)

Mother wants him to do it. (Состоит из местоимения him и инфинитива to do.)

На русский язык обороты Complex Object переводятся придаточными изъяснительными предло­жениями, которые вводятся союзами что, чтобы. После глаголов see, hear, watch при переводе упот­ребляется союз как.

Местоимение в объектном падеже переводится на русский язык местоимением в именительном падеже.

I want him to translate this text,— Я хочу, чтобы он перевел этот текст.

Complex Object употребляется:

После глаголов**:**

to want — I want you to learn English.— Я хочу, чтобы ты изучал английский.

to expect — I expect her to come on time.— Я ожидаю, что она придет вовремя.

would like — Не would like us to read this book.— Он хотел бы, чтобы мы прочитали эту книгу.

|  |  |  |  |
| --- | --- | --- | --- |
| I  We  You  They  Не  She | Want  expect  would like | Me  You  him  her  us  them | to do it. |

После глаголов восприятия; to hear (слышать), to see (видеть), to watch (наблюдать), to feel (чувство­вать) и глагола to make (заставлять) и to let (позволять).

После глаголов восприятия и глаголов to make и to let инфинитив употребляется без частицы to.

He watches them play.— Он наблюдает, как они играют.

Don't let your daughter come home late.— He позволяйте Вашей дочери приходить поздно.

I see him park the car.— Я вижу, что (как) он паркует машину.

I hear them laugh in the next room.— Я слышу, что они смеются в соседней комнате.

She makes her son clean the room every day.— Она заставляет сына убирать комнату каждый день.

**Упражнения**

1. Измените местоимение в общем падеже на местоимение в объектном падеже:

1) Let (he) smoke here.

2) 1 would like (you) to offer Pete your help.

3) Не made (we) do the work again.

4) Bad weather made (they) return home.

5) She wants (we) to come in time.

6) I heard (she) call me.

7) Dick noticed (I) open the door and go out.

8) My parents want (I) not to smoke.

2. Выберите правильный вариант перевода предложения:

1. 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.

2. She heard him open the door.

a) Она слышала, как он отпирал дверь.

b) Она услышала его шаги.

c) Она слышит, как он открыл дверь.

3. 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.

4.Let him smoke.

a) Пусть он курит.

b) Пусть она курит.

c) Заставьте его курить.

5. She saw the postman climbing up the stairs.

a) Она видела почтальона.

b) Она видела, как почтальон поднимался по лестнице.

6. Не made us do the work again.

a) Он попросил нас сделать работу.

b) Он заставил нас сделать работу снова.

1.Раскройте скобки и письменно переведите данные предложения, обращая внимание на сложное дополнение

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.

I saw (you) cross the street.

2.Измените предложения, используя сложное дополнение

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.

**Практическая работа №6**

Тема: Беспроводная телекоммуникационная система

Цель: - чтение текста и закрепление лексики

- развитие языковой догадки

Прочитайте текст, догадайтесь о значении слов, данных после текста

WIRELESS COMMUNICATION

Wireless communication means communication by radio, though ultrasound and infrared light are also used occasionally. The term “wireless” has come to mean non broadcast communication, usually between individuals who use portable or mobile equipment very often. Wireless communication is the transfer of information between two or more points that are not connected by an electrical

conductor. Early wireless systems used crude, though often quite powerful, spark-gap transmitters, and were suitable only for radiotelegraphy. The invention of the triode vacuum tube by De Forest in 1906 allowed for the modulation of a continuous wavesignal and made voice transmission practical.

Early radio systems transmitted analog signals. Today most radio systems transmit digital signals composed of binary bits, where the bits are obtained directly

from a data signal or by digitizing an analog signal. The most basic possible wireless system consists of a transmitter, a receiver, and a channel, usually a radio link. Since radio cannot be used directly with low frequencies such as those in human voice, it is necessary to superimpose the information content onto a higher frequency carrier signal at the transmitter, using a process called modulation. The use of modulation allows more than one information signal to use the radio channel by simply using a different carrier frequency for each. The inverse process, demodulation, is performed at the receiver in order to recover the original information. The information signal is called the modulating signal, or the baseband signal. Most of the systems involve two-way communication. Sometimes communication can take place in both directions at once. This is called full-duplex communication. An ordinary telephone call is an example of full-duplex communication. Some two-way communication systems do not require simultaneous communication in both directions. Half-duplex systems save bandwidth by allowing the same channel to be used for communication in both directions. The most common wireless technologies use electromagnetic wireless telecommunications, such as radio. With radio waves distances can be short, such as a few metres for television remote control, or as far as thousands or even millions of kilometres for deep-space radio communications. It encompasses various types of fixed, mobile, and portable applications, including two-way radios, cellular telephones, personal digital assistants (PDAs), and wireless networking. Other examples of applications of radio wireless technology include GPS units, garage door openers, wireless computer mice, keyboards and headsets, headphones, radio receivers, satellite television, broadcast television and cordless telephones. Cellular phones are rapidly supplanting antiquated wire line systems in many developing countries.

In addition, wireless local area networks currently supplement or replace wired networks in many homes, businesses, and campuses. Many new applications, including wireless sensor networks, automated highways and factories, smart homes and appliances, and remote telemedicine, are emerging from research ideas to concrete systems. The explosive growth of wireless systems coupled with the proliferation of laptop and palmtop computers indicate a bright future for wireless networks, both as stand-alone systems and as part of the larger networking infrastructure, applications.

Word combinations and phrases

communication by radio a continuous-wave signal

non-broadcast communication composed of

portable or mobile equipment by digitizing

the transfer of information a radio link

low frequencies carrier signal

to superimpose the information content in order to

to involve two-way communication in both directions

1. Find in text English equivalents for the following words and word

combinations:

искровый промежуток, инфракрасный свет, электрический проводник, мощный, трёхэлектродная электронная лампа, незатухающая волна, передавать цифровые сигналы, использовать канал радиовещания, обратный процесс, восстановить первоначальную информацию, сигнал базовой полосы частот, изобретение, одновременная связь, дуплексная связь, двусторонняя связь, полудуплексные системы, ширина полосы, вытеснять, старомодные проводные системы, сотовые телефоны, электронный секретарь, дистанционное управление телевизором, телефоны без соединительного шнура, заменять проводные сети, приёмно-передающие радиоустановки.

**Практическая работа №7**

Тема**:** Беспроводная телекоммуникационная система

Цель: - активизировать лексику

- извлекать информацию из текста

-развивать память

3. Read the following words and try to remember them.

oscillator – генератор (высоких частот)

transfer – передача

radio frequency – радио частота

convert – преобразовывать, превращать

transceiver – приемопередатчик, радиопередатчик

band – диапазон

disturb – создать помехи

transmission – трансляция, передача

transmitter – передатчик

drawback – изъян, недостаток

device – устройство, прибор

cellular – сотовый (относящийся к радиотелефонной системе)

message – сообщение

broadcast – радиовещание, вещание

decode – расшифровать

Прочтите текст (Практическая работа №6) и ответьте на вопросы

1. Answer the following questions:

1.What does wireless communication mean? 2. What transmitters did early wireless systems use? 3. Who was the triode vacuum tube invented by? 4. Why did it make voice transmission practical? 5. Did early radio systems transmit analog or digital signals? 6. What are digital signals composed of? 7. What are bits obtained from? 8. What does a basic wireless system consist of? 9. Why is it necessary to superimpose the information content onto a higher frequency carrier signal at the transmitter? 10. What does the use of modulation allow? 11. Where is demodulation performed?

12. How is the information signal called? 13. What is called full-duplex communication? Give an example of full-duplex communication. 14. Why do half duplex systems save bandwidth? 15. Can distances be short with radio waves? 16. What does radio wireless technology encompass? 17. What indicates a bright future for wireless networks?

VOCABULARY EXERCISES

2**.** Translate the following sentences paying attention to the words and word

combinations in italics:

1. Wireless communication is, by any measure, *the fastest growing segment* of the communication industry. 2. Early communication networks *were replaced* first by the telegraph network and later by the telephone. 3. Methods of achieving wireless communications include the use of other *electromagnetic wireless technologies*, such as light, magnetic, or electric fields or the use of sound. 4. Now the term “wireless” is used to describe modern wireless connections such as in cellular networks and *wireless broadband Internet.* 5. Radio is *the radiation* (wireless transmission) of electromagnetic signals through the atmosphere or free space.

6. Wireless operations permit services, such as *long-range communications*, that

are impossible or impractical to implement with the use of wires. 7. Today, the term "radio" specifies the actual type of transceiver device or chip, whereas "wireless" refers to *the lack of physical connections*. 8. Demodulation is performed *at the receiver* in order to recover the original information.

**Практическая работа №8**

Тема**:** Cложное дополнение

Цель: закрепление грамматического материала

1.Раскройте скобки и письменно переведите данные предложения, обращая внимание на сложное дополнение

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.

I saw (you) cross the street.

2.Измените предложения, используя сложное дополнение

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.

3. Перефразируйте предложения, используя сложное дополнение.

Н-р:  I want that she will cook mushroom soup. (Я хочу, чтобы она приготовила грибной суп.) – 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 … .

**Практическая работа №9**

**Контрольная работа**

**Цель:** контроль знания грамматического материала

**Study the text and try to understand all details.**

Wireless Communication

Wireless communications are various telecommunications systems that use radio waves to carry signals and messagesacross distances. Wireless communications systems use devices called transmitter*s* to generate radio waves. A microphone or other mechanism converts messages, like sounds or other data, into electronic impulses. The transmitters change, or modulate, the radio waves so they can carry the impulses, and then transmit the modulated radio signals across distances. Radio receivers pick up these signals and decodethem back into original messages. Commercial radio and television are also wireless telecommunications system, but radio and television are mainly public broadcast services rather than personal communications systems.

Wireless communications allow people greater flexibility while communicating, because they do not need to remain at a fixed location, such as a home or office. Wireless technologies make communications services more readily available than traditional wire-based services (such as ordinary telephones), which require the installation of wires. This is useful in places where only temporary communications services are needed, such as at outdoor festivals or large sporting events. These technologies are also useful for communicating in remote locations, such as mountains, jungles, or deserts, where telephone service might not exist. Wireless services allow people to communicate while in a car, airplane, or other moving vehicle. Police, fire, and other emergency departments use two-way radio to communicate information between vehicles that are already responding to emergency calls, which saves valuable time. Construction and utility workers frequently use hand-held radios for short-range communication and coordination. Many businesspeople use wireless communications, particularly cellular radio telephones, to stay in contact with colleagues and clients while traveling.

All wireless communications devices use radio waves to transmit and receive signals. These devices operate on different radio frequencies so that signals from one device will not overlap and interfere with nearby transmissions from other devices.

2. Put 5 questions to the text.

**Практическая работа №10**

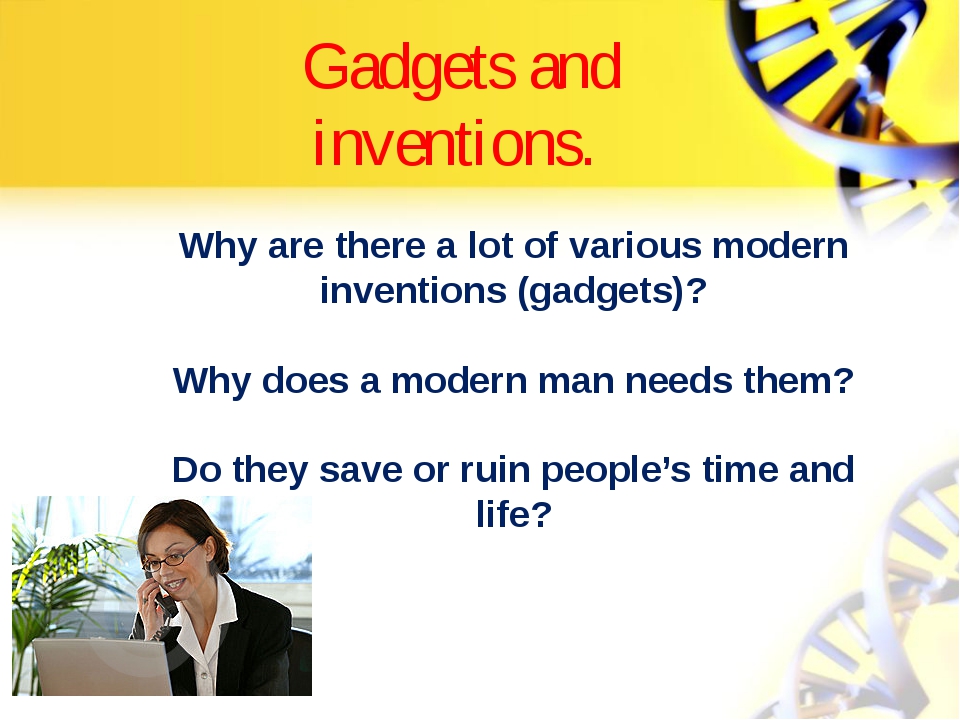
**Итоговое занятие**

Цель: закрепление знаний по теме: “Information technologies”

1.Answer the questions



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# IVкурс, VIII семестр

**Практическая работа №1**

Тема**:** Четыре поколения компьютеров.

Цель: ознакомить с лексикой из текста

1. Прочтите текст и выпишите незнакомые слова.

2. Назовите главные отличительные черты компьютеров четырех поколений.

Four generations of computers

The first vacuum tubes computers are referred to as first gen­eration computers, and the approximate period of their use was from 1950 to 1959. UNIVAC 1 (UNF&rsal Automatic Com­puter) is an example of these computers which could perform thousands of calculations per second. Those devices were not only bulky, they were also unreliable. The thousands of vacuum tubes emitted large amounts of heat and burned out frequently.

The transistor, a smaller and more reliable successor to the vacuum tube, was invented in 1948. So-called second genera­tion computers, which used large numbers of transistors were able to reduce computational time from milliseconds to microsec­onds, or millionths of seconds. Second-generation computers were smaller, faster and more reliable than first-generation com­puters.

Advances in electronics technology continued, and micro­electronics made it possible to reduce the size of transistors and integrate large numbers of circuit elements into very small chips of silicon. The computers that were designed to use integrated circuit technology were called third generation computers, and the approximate time span of these machines was from 1960 to 1979. They could perform many data processing operations in nanoseconds, which are billionths of seconds.

Fourth generation computers have now arrived, and the inte­grated circuits that are being developed have been greatly re­duced in size. This is due to microminiaturization, which means that the circuits are much smaller than before; as many as 100 tiny circuits are placed now on a single chip. A chip is a square or rectangular piece of silicon, usually from 1/10 to 1/4 inch, upon which several layers of an integrated circuit are etched or imprinted after which the circuit is encapsulated in plastic or metal.

**Практическая работа №2**

Тема: Четыре поколения компьютеров.

Цель: извлечение информации из текста

I.Прочтите текст «Четыре поколения компьютеров» и устно ответьте на вопросы, данные после текста

Four generations of computers

The first vacuum tubes computers are referred to as first gen­eration computers, and the approximate period of their use was from 1950 to 1959. UNIVAC is an example of these computers which could perform thousands of calculations per second. Those devices were not only bulky, they were also unreliable. The thousands of vacuum tubes emitted large amounts of heat and burned out frequently.

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1. In what year was the first generation of computers?

2. What was their characteristic?

3.Why were computers of the second generation more reliable?

4.What was the characteristic feature of the next generation?

5.Describe the computers of the fourth generation.

**Практическая работа №3**

Тема: Четыре поколения компьютеров.

Цель: извлечение информации и з текста

Просмотрите текст и ответьте на вопросы, ис­пользуя информацию текста.

Many technical developments of electronic digital comput­ers took place in the 1940s and 1950s. Mark I, the name given to the first digital computer, was completed in 1944. The man responsible for this invention was Professor Howard Aiken. This was the first machine that could figure out long lists of mathe­matical problems at a very fast rate.

In 1946 two engineers at the University of Pennsilvania, J.Eckert and J.Maushly, built their digital computer with vacu­um tubes. They named their new invention ENIAC (the Elec­tronic Numerical Integrator and Calculator).

Another important achievement in developing computers came in 1947, when John von Neumann developed the idea of keeping instructions for the computer inside the computer's memory. The contribution of John von Neumann was particu­larly significant. As contrasted with Babbage's analytical engine, which was designed to store only data, von Neumann's ma­chine, called the Electronic Discrete Variable Computer, or EDVAC, was able to store both data and instructions. He also contributed to the idea of storing data and instructions in a bi­nary code that uses only ones and zeros. This simplified com­puter design. Thus computers use two conditions, high voltage, and low voltage, to translate the symbols by which we commu­nicate into unique combinations of electrical pulses. We refer to these combinations as codes.

Neumann's stored program computer as well as other ma­chines of that time were made possible by the invention of the vacuum tube that could control and amplify electronic signals. Early computers, using vacuum tubes, could perform compu­tations in thousandths of seconds, called milliseconds, instead of seconds required by mechanical devices.

1. When was the first analog computer built?

2. Where and how was that computer used?

3. When did the first digital computers appear?

4. Who was the inventor of the first digital computer?

5. What could that device do?

6. What is ENIAC? Decode the word.

7. What was J. Neumann's contribution into the development of computers?

8. What were the advantages of EDVAC in comparison with ENIAC?

**Практическая работа №4**

Тема: Краткая история развития сети Интернет

Цель: извлечение информации и з текста

**Задание:** прочитайте и выучите новые слова. Составьте предложения, используя данную лексику

|  |  |  |
| --- | --- | --- |
| Internet |  | интернет |
|  | | |
| to surf the Internet/Net |  | бродить по сети |
|  | | |
| website |  | вебсайт |
|  | | |
| to visit a website |  | посещать вебсайт |
|  | | |
| online |  | режим онлайн |
|  | | |
| to work online |  | работать в режиме онлайн |
|  | | |
| e-mail |  | электронная почта |
|  | | |
| to send e-mails |  | посылать электронные письма |
|  | | |
| hyperlink |  | гиперссылка |
|  | | |
| to create hyperlinks |  | создавать гиперссылки |
|  | | |
| password |  | пароль |
|  | | |
| to enter a password |  | вводить пароль |
|  | | |
| login |  | регистрация |
|  | | |
| remote login |  | дистанционный вход в систему |
|  | | |
| search engine |  | поисковая система |
|  | | |
| convenient search engine |  | удобная поисковая система |
|  | | |
| chat room |  | чат, комната по интересам |
|  | | |
| to gossip in a chat room |  | болтать в чате |
|  | | |
| file |  | файл |
|  | | |
| to download files |  | загружать файлы |

**Практическая работа №5**

Тема**:** Интернет

Цель : извлечение информации из прочитанного текста

Задание: прочтите текст и скажите разницу между Интернет и WWW

The emergence of the Internet was associated with the need to develop in the United States in the event of hostilities reliable data transmission system. October 29, 1969 as part of a military project ARPANET, the first session in the history of the exchange of information between the two computers: one is located in the University of California, the other - at Stanford. This date is generally considered the day when the Internet was.  
The Internet itself, ie the physical network connecting computers, not to be confused with the World Wide Web (World Wide Web), which appeared much later in the form of what is known today almost everyone. The World Wide Web is a set of servers (millions of them), and protocols for the exchange of information between servers and users. Web as we know and love today was invented by British scientist Tim Berners-Lee in 1989 as a set of text documents, written in the same language they invented HTML and accessible system of unique network address (URL) with the ability to move from one document to another .

**Практическая работа № 6**

Тема: История развития Интернет

Цель : извлечение информации из текста

Задание**:** прочитайте текст и найдите ответы на вопросы

Internet

Internet is a network connecting many computer networks and based on a common addressing system and communications protocol. From its cre­ation in 1983 it grew into an increasingly popular medium.

The original uses of the Internet were electronic mail (commonly called "E-mail"), file transfer, using file transfer protocol, bulletin boards and newsgroups, and remote computer access (telnet).

The World-Wide Web, which enables simple navigation of the Internet sites through a graphical interface, expanded during the 1990's to become the most important component of the Internet.

By the mid-1990's the Internet connected millions of computers throughout the world. Many commercial computer network and data services also provided at least indirect connection to the Internet.

The Internet had its origin in U.S. Department of Defence program called ARPANET (Advanced Research Project Agency Network).

It was established in 1969 to provide a communications network for or­ganizations connected with defence-related research.

Researchers and academics in other fields began to make use of the net­work, and at length the National Science Foundation (NSF), which had created a similar and parallel network called NSFNet, took over much of the technology from ARPANET and established a distributed network of net­works capable of handling far greater traffic. NSF continues to maintain the backbone of the network (which carries data at a rate of 45 million bits per second), but Internet protocol development is governed by the Internet Ar­chitecture Board.

Amateur radio, cable television wires, spread-spectrum radio, satellite, and fibre optics all have been used to deliver Internet services. Networked games, networked monetary transactions, and virtual museums are among applications being developed that both extend the network's utility and test the limits of its technology.

Ответьте на вопросы:

When was internet created?

What of the original uses of the Internet?

What is the most important component of the Internet?

In what program did the Internet its origin?

Give the full name of NSFNet. What does it mean?

**Практическая работа №7**

Тема: Сложное подлежащее

Цель: правило образования и использования структуры» Сложное подлежащее»

Задание:ознакомьтесь с правилами образования и употребления структуры « Сложное подлежащее». Составьте и запишите 5 предложений с данной структурой.

**Неопределенно-личным предложениям** русского языка чаще всего в английском языке соответствуют пассивные обороты, как например:

It is said that ... Говорят, что ...

It is reported that ... Сообщается, что ...

It was supposed that ... Предполагали, что ...

Сложноподчиненное предложение с главным предложением, выраженным неопределенно-личным оборотом типа **it is said** (го­ворят), **it is known (**известно), **it seems** (кажется**), it is likely** (веро­ятно), имеет свой эквивалент - простое предложение, в которое входит особая конструкции «Субъектный инфинитивный обо­рот». Эта конструкция, выраженная существительным в общем падеже или местоимением в именительном падеже с инфинити­вом, переводится на русский язык придаточным предложением:

1🡪 2 🡪 3

It is said that they live in St. Peters­burg. 1 2 3

­2🡪 1 🡪 3 Говорят, что они живут в Санкт-Петербурге.

**They are said to live** in St, Peters­burg.

Сказуемое английского предложения **(are said**) при переводе на русский язык преобразуется в сказуемое главного предложе­ния, представляющее собой неопределенно-личный оборот (говорят), подлежащее **( they** ) становится подлежащим русского при­даточного предложения, а инфинитив (**to live**) - его сказуемым. Придаточное предложение в русском переводе вводится союзом что. «Субъектный инфинитивный оборот» употребляется с гла­голами, обозначающими утверждение, знание, физическое вос­приятие, просьбу, приказание, которые могут стоять в любом времени в страдательном залоге, а именное глаголами:

To say сказать

To know знать

To think думать, полагать, считать

To report сообщать

To suppose предполагать

To expect ожидать, полагать

To consider считать, полагать

To assume допускать

To believe полагать

To see видеть

To hear слышать

Переведите данные предложения

She **is said to know** several foreign languages.

Говорят, что она знает не­сколько иностранных язы­ков.

They **were reported to have arrived** in Moscow.

Сообщили, что они приехали в Москву.

He **is known to have**  a large collection of pictures.

Известно, что у него большая коллекция картин.

**Практическая работа №8**

Тема: Всемирная паутина

Цель : знакомство с новой лексикой из текста

Задание:прочитайте текст и запомните новые слова.

**The World Wide Web, Web** or **WWW** is a network of documents that works in a **hypertext** (гипертекст) environment, i.e. using text that contains links, **hyperlinks** (гиперссылка) to other documents.

The files, **web pages**, are stored in computers, which act as **servers**. Your computer, the **client**, uses a **web browser**, a special program to access and download them. The **web pages** are organized in **websites**, groups of pages located on the Web, maintained by a **webmaster**, the manager of a website.

The Web enables you to post and access all sorts of interactive multimedia information and has become a real **information highway**. (информационная магистраль)

To **surf (**путешествовать по Интернету**)** or navigate the Web, access and retrieve web pages or websites, you need a computer with an Internet connection and a web browser. After you have launched it, you must type the website address or **URL** (**Uniform Resource Locator**). (идентификатор информ. ресурса)

To find interesting sites you can use **search engines (поисковый механизм)**, where the website information is compiled by **spiders**, computer-robot programs that collect information from **sites** by using keywords, or through **web indexes**, subject directories (каталоги) that are selected by people and organized into hierarchical subject categories. Some **web portals** – websites that offer all types of services, e.g. email, forums, search engines, etc. – are also good starting points.

The most relevant website addresses can be stored in your computer using the **bookmarks** (закладки) or **favourites** function in your **browser**. Websites usually have a beginning page or **home** page. From this starting point you can navigate by clicking your mouse on hyperlinks in texts or images.

**Практическая работа №9**

Тема: Всемирная паутина

Цель : работа с лексикой из текста

Задание:прочитайте текст, выпишите выделенные жирным шрифтом слова и переведите их.

**The World Wide Web, Web** or **WWW** is a network of documents that works in a **hypertext** (гипертекст) environment, i.e. using text that contains links, **hyperlinks** (гиперссылка) to other documents.

The files, **web pages**, are stored in computers, which act as **servers**. Your computer, the **client**, uses a **web browser**, a special program to access and download them. The **web pages** are organized in **websites**, groups of pages located on the Web, maintained by a **webmaster**, the manager of a website.

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The most relevant website addresses can be stored in your computer using the **bookmarks** (закладки) or **favourites** function in your **browser**. Websites usually have a beginning page or **home** page. From this starting point you can navigate by clicking your mouse on hyperlinks in texts or images.

Закончите данные предложения, используя лексику из текста

1Start up your computer and connect to the Internet.

**2** Open your ............ ………… .

**3** Type the ………… to access a website.

**4** Your web browser sends the request to the correct ............ ………… .

**5** The server looks for the document and sends it to the ………… computer.

**6** Your web browser displays the selected ............ ………… on the screen.

**7** From the home page of the ............ you can ………. to other pages by

clicking on hyperlinks.

**8** If you want to find more websites, use a ............ ………..

****

**Практическая работа №10**

Тема:Причастие I

Цель : правило образования и использования причастия I

Задание:изучить грамматический материал и выполнить письменно упражнения

[Причастие I](file:///H:\\Электронный_учебник\\word\\Копия%20База-9.doc" \l "_top)

**Причастие** - неличная форма глагола, сочетающая признаки глагола и прилагательного. В английском языке существует два вида причастий: Participle I и Participle II.

**Причастие I о**бразуется от глаголов при помощи окончания -**ing.-**

**to smile - smiling; to do - doing.**

Причастие I имеет активную и пассивную формы. Активная форма причастия имеет простую форму (**coming**) и перфектную (**having come**). Причастие простой формы на русский язык переводится причастием с суффиксами **- ущ,-ющ**. Например: **going -идущий, singing -** поющий. В функции обстоятельства причастие I переводится на русский язык деепричастием несовершенного вида с окончанием **-а, -я.** Например: читая, переводя.

Translating the article he consulted the dictionary.

Перед причастием I в функции обстоятельства часто стоят союзы **when (когда**) и **while (в то время как).** Такие словосочетания переводятся на русский язык либо деепричастным оборотом без союза, либо придаточным предложением, которое начинается с союзов когда, в то время как.

While translating the article the student consulted the dictionary.

1) Переводя статью, студент пользовался словарем.

2) Когда студент переводил статью, он пользовался словарем.

Причастие I перфектной формы на русский язык переводится деепричастием с **окончанием -в-.**

Having done the work I went home. Сделав работу, я пошел домой.

Причастие I в пассивной простой форме образуется **being+Vз** . Например: being translated - переводимый, который переводится; being done -сделанный, который делается.

The bridge being built is going to be beautiful.

Мост, который строится, будет очень красивым.

Пассивная совершенная форма образуется **having been +Vз**.

Например: having been translated - когда (его) перевели. Данная форма причастия на русский язык переводится придаточным предложением.

Having been translated into many languages Pushkin's books became known all over the world.

После того как книги Пушкина были переведены на многие языки, они стали известны во всем мире.

Упражнения

1**.** Образуйте причастие **I**, Indefinite по образцу и переведите их на русский язык:

ask-спрашивать, asking-спрашивающий,

То sell-продавать, selling-продающий

To open, to close, to build, to watch, to wash, to connect, to use.

2. Переведите на русский язык следующие словосочетания:

A smiling girl, playing children, a writing boy, a falling tree, a sleeping man, a £. walking couple, a developing country, a crying child, a burning house.

3.Переведите следующие словосочетания на русский язык:

The workers doing this job

People living in Japan

The engineer working well

The student making a project

Having been to London

Having used

Having done this exercise

Developed countries

3.Укажите, какое причастие соответствует причастию Perfect Active:

a)having finished, b)have finish f)having passed, b)passed

b)saw, b)having seen e)come, b)having come

c)having did, b)having done g)having eat, b)having eaten

d)having been, b)having be h)having played, b)played

e)having wrote, b)having written i)have met, b)having met

4. Совместите фразы в левой колонки с их переводом в правой:

l) having come home а) выполнив эту работу

2) having done this work в) развивая скорость

3) developing speed с) студент, сдающий экзамены

4) a student passing exams д) развивая экономику

5) a mechanic using new methods е) придя домой

ж) механик, использующий новые

методы

5. Переведите предложения на русский язык:

1.Having finished the experiments the students went home.

2. The generators constructed at the plant have no commutators.

З.Тhе question discussed at the meeting was very important.

4. Be careful driving a car at night.

5. What is the name of the man speaking on the phone now?

**Практическая работа № 11**

Тема: Причастие II

Цель : правило образования и использования причастия II

[Причастие II](file:///H:\Электронный_учебник\word\Копия%20База-9.doc#_top)

Причастие – это неличная форма глагола, сочетающая свойства глагола, прилагательного и наречия. В английском языке различают два причастия: Participle I и : Participle II.

Правильные глаголы образуются при помощи окончания **–ed;**

Used – использованный

3 форму неправильных глаголов следует запомнить. Причастие II переводится на русский язык деепричастием с суффиксами **–енн, -анн.**

Participle II имеет только одну форму, которая совпадает с третьей формой глагола. Самостоятельно в предложении может употребляться только Participle II, образованное от переходных глаголов.

A broken cup – разбитая чашка

The generators constructed at the plant have no communicators.

Генераторы, сконструированные на заводе не имеют коммуникаторов.

Оборот «**Объектный падеж с причастием прошедшего вре­мени**» (Objective with-the-Past-Participle) представляет собой сочетание существительного или местоимения в объектном падеже с причастием прошедшего времени. Этот оборот упот­ребляется после глаголов: **to have, to get, to want, to wish, to watch, to hear, to see, to find.** Например:

1 want to have a new dress made.

Я хочу пошить новое платье.

Этот оборот с глаголом **to have (to get**) означает, что действие совершается не самим подлежащим, а другим лицом для него или за него.

I must have my coat cleaned,

Я должен почистить пальто (это сделают для меня).

1.Переведите данные причастия на английский язык

Посланный

Продающий

Купленный

Проданный

Читаемый

Читающий

Дающий

Взявший

Ждавший

2.Переведите письменно данные предложения на русский язык, обращая внимание на причастие

1. Having obtained the required results we informed the manager about it.

2. While operating with graphical interface people usually use such manipulators as a mouse and a track ball.

3. Being built on the basis of transistors lasers are successfully used in technology.

4. Personal computers have an influence upon the classroom, affecting both the learner and the teacher.

5. The most common input device used with personal computers is the keyboard.

6. When keyed the data are held in a small memory called buffer.

7. Scientists studying the problem made a lot of experiments.

8. Having studied the problem we could answer many questions.

3.Определите функции причастий I и переведите предложения.

1. The simplest electric circuit consists of a source of energy, receiver of energy or load and two conductors connecting the receiver and power-source terminals. 2. The plant producing semiconductor devices was built 2 years ago. 3. The device being manufactured can be used in your experiment. 4. Being obtained in the laboratory the new substance had some valuable properties. 5. Being heated to high temperatures the metal changed its colour. 6. When working with these substances one must be very attentive. 7. Introducing the impurity material into the growing crystal you can obtain two types of semiconductors. 8. A pure semiconductor, having neither donors nor acceptors, is called intrins

**Практическая работа №12**

Тема:Персональные компьютеры

Цель : извлечение информации из текста

Задание:прочтите текст и ответьте на вопросы

Personal computers have a lot of applications, however, there are some major categories of applications: home and hobby, word processing, professional, educational, small business engineering and scientific.

**Home and Hobby.** Personal computers enjoy great popularity among experimenters and hobbyists. They are an exciting hobby. All hobbyists need not to be engineers or programmers. There are many games that use the full capabilities of a computer to provide many hours of exciting leisure-time adventure.

The list of other home and hobby applications of PCs is almost endless, including: checking account management, personal finance, planning, investment analyses, telephone answering and dialing, home security, climate control, appliance control, calendar management, mailing lists and what not.

**Word processing.** At home or at work, applications software, called a word processing program, enables you to correct or modify any document in any manner you wish before printing it. Using the CRT monitor as a display screen, you are able to view what you have typed to correct mistakes in spelling or grammar, add or delete sentences, move paragraphs around, and replace words. The letter or document can be stored for future use.

1.What are the main spheres of PC applications?

2.Do you enjoy computer games?

3.Who other home and hobby applications, except computer games can you name?

4.What is “a word processing program”?

5.What possibilities it give?

6.Which professions are in great need of computers?

7.How can computers be used in education?

**Практическая работа №13**

Тема: Персональные компьютеры.

Цель: умение работать со словарем

**1**.Прочтите,переведите и запомните следующие выражения­  
An information-dependent society; a computer-literate cit­izen; an everyday problem-solving device; to be aware; to in­fluence the quality of life; to have an opportunity; to learn the basics; to learn computing; the most significant technical achievements; to embrace computer literacy; to prepare pro­grams; to direct the operations of a computer; to be on the way of becoming computer-literate; to process information; to have much in common; a data processing system.

2.Прочтите текст и скажите, как вы понимаете термины «компьютерная грамотность», информационное общество**»**

COMPUTER LITERACY

Informed citizens of our information-dependent society should be computer-literate, which means that they should be able to use computers as everyday problem-solving devices. They should be aware of the potential of computers to influence the quality of life.

There was a time when only priviliged people had an oppor­tunity to learn the basics, called the three R's: reading, writing, and arithmetics. Now, as we are quickly becoming an informa­tion-becoming society, it is time to restate this right as the right to learn reading, writing and computing. There is little doubt that computers and their many applications are among the most sig­nificant technical achievements of the century. They bring with them both economic and social changes. "Computing" is a con­cept that embraces not only the old third R, arithmetics, but also a new idea — computer literacy.

In an information society a person who is computer-literate need not be an expert on the design of computers. He needn't even know much about how to prepare programs which are the instructions that direct the operations of computers. All of us are already on the way to becoming computer-literate. Just think of your everyday life. If you receive a subscription magazine in the post-office, it is probably addressed to you by a computer. If you buy something with a bank credit card or pay a bill by check, computers help you process the information. When you check out at the counter of your store, a computer assists the checkout clerk and the store manager. When you visit your doc­tor, your schedules and bills and special services, such as labo­ratory tests, are prepared by computer. Many actions that you have taken or observed have much in common. Each relates to some aspect of a data processing system.

**Практическая работа №14**

Тема: Персональные компьютеры.

Цель: извлечение информации из текста

Переведите текст. Ответьте на вопросы, используя ин формацию текста.

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 used are: 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 three things, namely: Is one number less than another? Are two numbers equal? and, 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.

**­**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?

**Практическая работа №15**

**Тема**: Персональные компьютеры

**Цель**: подготовка и оформление презентации 

**4. Методические указания по разработке презентаций.**

1. **Общие понятия о разработке презентаций.**

1.Презентация не должна быть меньше 10 слайдов.

2.Первый лист – это титульный лист, на котором обязательно должны быть

представлены: название темы, название учебного заведения, фамилия, имя

автора презентации, учебная группа, фамилия, имя, отчество

преподавателя.

3.Следующим слайдом должно быть содержание, где представлены основные

этапы презентации. Желательно, чтобы из содержания по гиперссылке

можно перейти на необходимую страницу и вернуться вновь

на содержание.

4.Дизайн-эргономические требования: сочетаемость цветов, ограниченное

количество объектов на слайде, цвет текста, слайдов.

5.Последними слайдами презентации должны быть глоссарий и список

литературы.

**Практическая работа №16**

**Контрольная работа**

Цель: контроль чтения с извлечением информации

Прочтите текст

Personal computers have a lot of applications, however, there are some major categories of applications: home and hobby, word processing, professional, educational, small business engineering and scientific.

**Home and Hobby**. Personal computers enjoy great popularity among experimenters and hobbyists. They are an exciting hobby. All hobbyists need not to be engineers or programmers. There are many games that use the full capabilities of a computer to provide many hours of exciting leisure-time adventure.

The list of other home and hobby applications of PCs is almost endless, including: checking account management, personal finance, planning, investment analyses, telephone answering and dialing, home security, climate control, appliance control, calendar management, mailing lists and what not.

At home or at work, applications software, called a word processing program, enables you to correct or modify any document in any manner you wish before printing it. Using the CRT monitor as a display screen, you are able to view what you have typed to correct mistakes in spelling or grammar, add or delete sentences, move paragraphs around, and replace words. The letter or document can be stored for future use.

**1.** Письменно ответьте на следующие вопросы:

**1**.What are the main spheres of PC applications?

2.Do you enjoy computer games?

3.What other home and hobby applications, except computer games can you name?

4.What is “a word processing program”?

5.What possibilities it give?

6.Which professions are in great need of computers?

7.How can computers be used in education?

# Практическая работа №17

**Дифференцированный зачет**

Сообщения студентов по теме “Computers”

**Цель:**

  1. совершенствование устной речиt ной и письменной речи

  2. развитие творческихи познавательных способностей обучающихся

Computers in our lives

**1.Some scientists** say that without computers it would be difficult to live in the 21st century. Today they are running our factories, planning our cities, teaching our children and forecasting our future. The computer solves in seconds the problems that a generation of mathematicians would need months or years to solve without its help. The degree to which computers take over human functions may frighten some people and astonish others. If we are to believe some forecasts, computers, like the telephone or electricity, may become a common everyday thing used by almost everybody. They can even enter our home life. Computers help to make a person’s shopping list, remind someone of important appointments and anniversaries and answer the telephone. It’s often heard that the increasing flood of information will be one of the problems of the 21st century but a computer may help solve it too. In a computerized library of the future request for information will be answered instantly and as fully as the user wants.

Conclusion

Summing up, I should say that it’s hard to enumerate all the uses the computer may be put to, that is why they are extremely

**2.А сomputer** is one of the main things in my life. I can’t live a day without this electronic device. Why is this?

First, I often use a laptop to do school homework. Using it I look for useful information online, create presentations in PowerPoint, print reports, develop the necessary schemes and charts. Second, in my spare time, I like to process photos in Photoshop on my computer. I have long been fond of the retouching and creating collages, so it is a pleasure for me to do this kind of surprises for acquaintances. Third, there is no TV set in my home, so in the evening together with my parents and younger sister we often watch movies, interesting talk shows or broadcasts on my computer. In addition, I like to listen to relaxing music and to play various online games on my laptop.

To be frank, every day I spend much time on socializing with friends through social networking websites. I also need a computer for this, because correspond using my smartphone is not always convenient. About a month ago, my laptop got broken. Masters from the repair company required a whole week to resolve this problem. It is good that another computer remained at home, and I could prepare my lessons using it, but anyway it was a real challenge for me, because my parents` laptop didn`t have Photoshop.

Probably, not only me find it hard to imagine one`s life without a computer, because it is really a very useful and indispensable invention. Despite this, I perfectly understand that the radiation that comes from the monitor affect my health badly. I always try to take breaks during my work with a laptop: go to another room or briefly go out.

I am sure that adherence to these simple rules makes my communication with a computer both enjoyable and secure.

**3.Computers** became so much popular in our life. We use them every day and we can not imagine our life without them. They are important for pupils, students and adults.   
  
Education today is connected with computers and internet. We study different subjects and courses, learn programs and develop our skills with computers. It’s not possible today even to do homework. It helps me to look for important information, make presentations, sometime do translation and so on.   
  
So many professions today are connected with computers and internet: logisticians, doctors, programmers, personal assistants and many others. The work becomes easier and more effective.   
  
We have two computers at home because all my family uses them every day. I use it for school and my parents use it for work. Of course computers are very helpful, but they can be good also for our pastime. We watch movies or cartoons all together, read news, listen to music, play computer games. As you can see computers are very useful and good for the whole family.   
  
Of course they also waste our time, because people don’t really know how to use them smart. If you are too much dependent on your computer you will not be able to organize your time and your life. We have to remember, that computers will never replace for us real communication and friends, healthy lifestyle. But they can help us to reach higher level of life and get a good profession. The best way is to spend 1-2 hours per day with a computer, while studying and working. Rest of the time you can enjoy your family and friends. And only if you are a programmer or so you have to work all day with computers. I believe that our future depends only on us and if we use different technique smart, our life will be brighter and easier.

# V Курс, IX семестр

**Практическая работа №1**

Тема: История информационных технологий

Цель**:** извлечение информации из текста

Переведите текст. Ответьте на вопросы, используя ин формацию текста.

The table below shows the dates of the events and their significance in the history of IT. Complete the gaps in the table with the appropriate events from the list below the table. Compare your answers with other students in your group. Describe the stages in the history of IT.

|  |  |  |  |
| --- | --- | --- | --- |
| **History of Information Technology Year** | **Event** | | **Significance** |
| 1836 | | **The telegraph revolutionized** human (tele)communications with Morse code, a series of dots and dashes used to communicate between humans | |
| 1858– 1866 | | **The Transatlantic cable** allowed direct instant (мгновенный) communication across the Atlantic Ocean | |
| 1876 | | **The telephone created** voice communication, and telephone exchanges provide the backbone (магистраль)) of Internet connections today | |
| 1957 | | **Sputnik was** the first artificial earth satellite and the start of global communications | |
| 1962– 1968 | | **The Internet relies** on packet switching networks (сети  С коммутацией пакетов), which split data into tiny packets that may take different routes (маршруты) to a destination | |
| 1971 | | **People communicate** over the Internet with a program to send messages across a distributed network | |
| 1991 | | **User-friendly interface** to the World Wide Web is established with text-based, menu-driven interface to access Internet resources | |
| 1992 | | **The term “surfing the Internet**” is coined. (путешествие, перемещение по Интернету) | |
| 1995 | | **Online dial-up systems** (CompuServe, America Online, Prodigy) begin to provide Internet access | |
| 2000 | | **Provides fast access** to multimedia and large text files | |
| 2002 | | **Mobile phones**, handheld computers, and personal data assistants provide wireless access to the Internet | |
| 2004 | | **Use of radio waves to** send e-mail, Web pages, and other information through the air (Wi-Fi) | |
| 2006 | | **Worldwide expansion** of smart phones and Wi-Fi in developing countries | |

# Практическая работа № 2

**Тема**: История информационных технологий. Причастие I.

**Цель**: работа с лексикой из текста

1.Прочтите текст « История информационных технологий» и заполните колонку “**Events”** подходящими по смыслу выражениями, данными внизу

Beginning of the Internet

Transatlantic cable

Advances in wireless

Internet service providers advance

USSR launches Sputnik

Wireless expands globally

World Wide Web established

Telegraph

Multimedia changes the face of the Internet

Wireless technology expands

Broadband connections to the Internet emerge

Packet switching networks developed

# Практическая работа № 3

**Тема**: Причастие I и II

**Цель**: работа с лексикой из текста

Причастие прошедшего времени (The Past Participle, Participle II)

Причастие прошедшего времени правильных глаголов образуется путем прибавления суффикса -ed к инфинитиву глагола без частицы to. Читается этот суффикс так же, как суффикс -ed прошедшего неопределенного времени правильных глаголов.

to finish заканчивать -finished законченный

to civilize цивилизовать -civilized цивилизованный

Причастие прошедшего времени неправильных глаголов чаще всего образуется путем изменения корневой гласной или всей основы глагола:

to write писать - written написанный

to see видеть - seen увиденный

to teach обучать - taught обученный

В словарях после неопределенной формы неправильных глаголов обычно даются формы прошедшего неопределенного времени и причастия прошедшего времени.

На русский язык причастие прошедшего времени обычно переводится страдательным причастием совершенного или несовершенного вида.

**1.** Выберите из скобок требующуюся форму причастия:

1. a) The girl (writing, written) on the black board 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.

**2.**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.

# Практическая работа №4

**Тема**: WWW

**Цель:** умение работать с текстом и извлекать информации из прочитанного

Прочитайте текст. What is this text about? Read and translate the words given after the text

THE INTERNET

The Internet is a global system of interconnected computer networks that use the standard Internet protocol suite (TCP/IP) to link several billion devices worldwide. It is an international network of networks that consists of millions of private, public, academic, business, and government packet switched networks, linked by a broad array of electronic, wireless, and optical networking technologies. The Internet carries an extensive range of information resources and services, such as the interlinked hypertext documents and applications of the World Wide Web (WWW), the infrastructure to support email, and peer-to-peer networks for file sharing and telephony. At first most computers used a dial-up telephone connection that worked through the standard telephone line. Common methods of Internet access by users include dial-up with a сomputer modem via telephone circuits, broadband over coaxial cable, fiber optic or copper wires, Wi-Fi, satellite and cellular telephone technology. The Internet may often be accessed from computers in libraries and Internet cafes. Internet access points exist in many

public places such as airport halls and coffee shops. Wi-Fi provides wireless access to the Internet via local computer networks. Hotspots providing such access include Wi-Fi cafes, where users need to bring their own wireless-enabled devices such as a laptop or PDA. The origin of the Internet dates back to research commissioned by the United States in the 1960s to build robust, fault-tolerant communication via computer networks.

The funding of a new backbone in the 1980s, as well as private funding for other commercial backbones, led to worldwide participation in the development of new networking technologies, and the merger of many networks. Though the Internet has been widely used by academia since the 1980s, the commercialization of what was by the 1990s an international network resulted in its popularization and incorporation into virtually every aspect of modern human life. As of June 2012, more than 2.4 billion people – over a third of the world’s human population – have

used the services of the Internet; approximately 100 times more people than were using it in 1995. Online shopping has boomed both for major retail outlets and small artisans and traders. Business-to-business and financial services on the Internet affect supply chains across entire industries. Most traditional communications media including telephone, music, film, and television are being reshaped or redefined by the Internet, giving birth to new services such as voice over Internet Protocol (VoIP) and Internet Protocol television (IPTV). Newspapers, books, and other print publishing are adapting to website technology, or are reshaped into blogging and web feeds. The Internet has enabled and accelerated

new forms of human interactions through instant messaging, Internet forums, and social networking. The Internet has no centralized governance in either technological implementation or policies for access and usage; each constituent network sets its own policies. The Internet protocol suite: is the computer networking model and communications protocols used in the Internet and similar computer networks. It is commonly known as TCP/IP, because its most important protocols were the first networking protocols defined in this standard.

**WORDS AND WORD COMBINATIONS**

protocol suite a broad array

packet switched networks networking technologies

fault-tolerant communication world wide participation

an extensive range a dial-up telephone connection

to provide wireless access a hotspot

to adapt to a backbone

virtually to give birth to

to accelerate new forms constituent network

**EXERCISES TO THE TEXT**

Найдите в тексте эквиваленты следующих выражений:

объединённые компьютерные сети, протокол передачи голоса через интернет, стандартный набор протоколов, передача сообщений, сеть с коммутацией пакетов, широкополосный, информационные ресурсы, вести начало от, доступ, через компьютерные сети, устойчивый к повреждениям, централизованное управление, широкое множество, сотовый, иметь результатом, участие, медные

провода, приблизительно, приспосабливать, среды передачи (информации), ускорять, сеть с равноправным обменом данных, производить сенсацию, влиять, слияние многих сетей, основные розничные рынки сбыта.

# Практическая работа № 5

**Тема**: WWW

**Цель:** умение работать с текстом и извлекать необходимую информацию

Прочитайте текст (Практическая работа №4) и найдите ответы на следующие вопросы

1. What is the Internet?

2. What does it consist of?

3. What does the Internet carry?

4. Did most computers use a dial-up telephone connection at first?

5. What do common methods of Internet access by users include?

6. Where may the Internet be accessed from computers?

7. How does Wi-Fi provide access to the Internet?

8. What provides wireless access to the Internet via local computer networks?

9. When was the research to build fault-tolerant communication commissioned in the USA?

10. What led to worldwide participation in the development of new networking technologies, and the merger of many networks?

11. How many people have used the Internet since June 2012?

12. What has online shopping boomed?

13. What are most traditional communications media being reshaped by?

14. In what way has the Internet accelerated new forms of human interactions?

15. Does the Internet have centralized governance?



# Практическая работа №6

**Тема**: Blue tooth

**Цель**: извлечение информации из текста

**Прочитайте текст и сделайте письменный перевод**

Blue tooth wireless technology is a short- range communications technology intended to replace the cables connecting portable and/or fixed devices while maintaining high levels of security. The key features of Bluetooth are low power, and low cost. The Bluetooth specification defines a uniform structure for a wide range of devices to connect and communicate with each other over short distances (using short-wavelength UHF radio waves in the ISM band from 2.4 to 2.485 GHz) from fixed and mobile devices. It was invented by telecom vendor Ericson in 1994. The word “Bluetooth “ is an anglicized version of the Scandinavian *Blâtand*, the epithet of the tenth-century king Harald Bluetooth who united dissonant Danish tribes into a single kingdom, according to the legend, introducing Christianity as well. The idea of this name was proposed in 1997 by Jim Kardach who developed a system that would allow mobile phones to communicate with computers. At the time of this proposal he was reading Frans Gunnar Bengtsson’s historical novel *The Long Ships* about Vikings and king Harald Bluetooth. Bluetooth technology has achieved global acceptance such that any enabled device, almost everywhere in the world, can connect to other Bluetooth enabled devices in neighbourhood. Bluetooth enabled electronic devices connect and

communicate wirelessly through short-range, ad hoc networks known as piconets. Each device can communicate with up to seven other devices within a single piconet at the same time. Each device can also belong to several piconets simultaneously. Piconets are established dynamically and automatically as Bluetooth enabled devices

enter and leave radio proximity. A fundamental Bluetooth wireless technology strength is the ability to simultaneously handle both data and voice transmissions. This enables users to enjoy variety of innovative solutions such as hands-free headset for voice calls, printing and fax capabilities, and synchronizing PDA, laptop, and mobile phone applications to name a few. Bluetooth operates in the range of 2400- 2483.5 MHz. Bluetooth uses a radio

technology called frequency-hopping spread spectrum. The transmitted data are divided into packets and each packet is transmitted on one of the 79 designated Bluetooth channels. Each channel has a bandwidth of 1 MHz. Bluetooth 4.0 uses 2 MHz spacing which allows for 40 channels. The first channel starts at 2402 MHz and

continues up to 2480 MHz in 1 MHz steps. It usually performs 1600 hops per second. The operating range depends on the device class:

Class 3 radios – have a range of up to 1 meter or 3 feet.

Class 2 radios – most commonly found in mobile devices – have a range of 10

meters or 33 feet.

Class 1 radios – used primarily in industrial use cases – have a range of 100

meters or 300 feet.

The most commonly used radio is Class 2 and uses 2.5 mW of power. Bluetooth technology is designed to have very low power consumption. This is reinforced in the specification by allowing radios to be powered down when inactive. Piconet: A piconet is a network that is created using a wireless Bluetooth connection. The term "piconet" is derived from the words "pico", which means “very small” (technically, one trillionth, pico=10-12), and “net”, which is short for “network”. Therefore, the word “piconet” literally means “very small network”. Bluetooth [‘blu: ‘tu:θ]: Wireless personal area network, WPAN. mW: stands for “ milliwatt “. ISM band: (Industrial, Scientific and Medical band) is a part of the radio spectrum that can be used by anybody without a license in most countries.

**WORD-COMBINATIONS AND PHRASES**

wireless technology to communicate with each other

to replace the cables ad hoc networks

high levels of security innovative solutions

low power consumption data and voice transmissions

the key features to be powered down

a hands-free headset an enabled device

a single piconet radio proximity

# Практическая работа №7

**Тема**: Blue tooth

**Цель**: - расширение знаний обучающихся о Bluetooth

Найдите ответы на вопросы в тексте ( Практическая работа № 6)

1. What is Bluetooth wireless technology?

2. What are key features of it?

3. What defines a uniform structure?

4. Who was Bluetooth invented by?

5. What can you say about the origin of the word *Bluetooth*?

6. In what way do Bluetooth enabled electronic devices connect and communicate wirelessly?

7. How many devices can each device within a single piconet communicate with?

8. What is a piconet?

9. How are piconets established?

10. What is a fundamental Bluetooth wireless technology

strength?

11. What radio technology does Bluetooth use?

12. How is each packet transmitted?

13. How many hops per second does it perform?

14. What does the operating range depend on?

15. How many classes are there?

16. What is the most commonly used class?

17. Is Bluetooth technology designed to have very low power consumption?

# Практическая работа №8

**Тема Wi-Fi**

**Цель:** введение и закрепление лексического материала

Прочтите текст и найдите перевод следующих словосочетаний

**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 s 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.

2.Найдите в тексте перевод данных фраз и запишите их.

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, преимущества 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.

# Практическая работа № 9

**Тема Wi-Fi**

**Цель:** прочитайте текст и назовите проблемы, которые помогает решить **Wi-Fi технология**

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 mall 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.

**Ознакомьтесь с таблицей, где указаны различия герундия и причастия**

**Герундий и причастие**

|  |  |
| --- | --- |
| Английское причастие 1 | [Английский герундий](http://online-teacher.ru/blog/%D0%B0%D0%BD%D0%B3%D0%BB%D0%B8%D0%B9%D1%81%D0%BA%D0%B8%D0%B9-%D0%B3%D0%B5%D1%80%D1%83%D0%BD%D0%B4%D0%B8%D0%B9) |
| Не может брать на себя в английской речи функции подлежащих, дополнений и именных частей сказуемых. | Берет на себя роль дополнения, сказуемого (его именной части), подлежащего, например:  **Understanding of these grammar rules** will create a good base for speech practice. – Понимание этих грамматических правил создаст хорошую базу для речевой практики (подлежащее).  Olga`s hobby was **reading.** – Чтение было Ольгиным хобби (именная часть).  Sarah is proud **of helping these children**. – Сара гордится тем, что помогает этим детям (дополнение). |
| В роли определения всегда используется без предлогов, например:  The team carrying out these tests consists of my colleagues. – Команда, проводящая данные испытания, состоит из моих коллег. | При участии предлогов берет на себя роль определений, например:  Their dream **about flying toMars** can come true. – Их мечта о полете на Марс может сбыться (определение). |
| Роль обстоятельств берет на себя без привлечения предлогов, например:  Calling her relatives Sarah spent the whole morning. – Сара потратила целое утро, обзванивая своих родственников. | С предлогами может брать на себя роль обстоятельств различных типов, например: |

**Практическая работа №10**

**Контрольная работа**

**Цель:** контроль знаний грамматики

*1. Задание*

Определите форму причастия I (Simple Active или Perfect Active), написать S или P.

Being busy, the director could not see me.

*2. Задание*

Определите форму причастия I (Simple Active или Perfect Active), написать S или P.

Having come to the hotel, she made herself comfortable in the room.

*3.Задание*

Определите форму причастия I (Simple Active или Perfect Active), написать S или P.

Saying this, he left the room.

*4.Задание*

Определите форму причастия I (Simple Active или Perfect Active), написать S или P.

Having left my luggage at the railway station. I could not change clothes.

*5.Задание*

Определите форму причастия I (Simple Active или Perfect Active), написать S или P.

Having looked seats for everybody, he hurried to the platform.

*6.Задание.*

Совместите перевод причастия I, II из левой колонки с переводом в правой колонке:

|  |  |
| --- | --- |
| a) спрошенный | 1) sold |
| b) посланный | 2) selling |
| c) продающий | 3) waited |
| d) купленный | 4) taken |
| e) проданный | 5) reading |
| f) читаемый | 6) sent |
| g) читающий | 7) read |
| h) дающий | 8) asked |
| i) взявший | 9) bought |
| j) ждавший | 10) giving |

*7.Задание*

Выберите правильный вариант перевода обращая внимание на причастия I, II:

The boy riding a bike is my friend’s son.

a) Сын моего друга катается на велосипеде.

b) Катаясь на велосипеде, мальчик увидел друга.

c) Мальчик, катающийся на велосипеде, сын моего друга.

*8. Задание*

Выберите правильный вариант перевода, обращая внимание на причастия I, II:

The shop being built near my house is very modern.

a) Магазин, строящийся около моего дома, очень современный.

b) Магазин около моего дома - очень современный.

c) Около моего дома строится современный магазин.

*9.Задание*

Выберите правильный вариант перевода, обращая внимание на причастия I, II:

The girl sitting next to me has red hair.

a) У девушки, сидящей рядом со мной, рыжие волосы.

b) Рядом со мной сидит девушка с рыжими волосами.

c) У сидящей девушки рыжие волосы.

*10. Задание*

Выберите правильный вариант перевода, обращая внимание на причастия I, II:

The boy looked at a sleeping girl.

a) Мальчик увидел спящую девушку.

b) Мальчик посмотрел на спящую девушку.

c) Посмотрев на спящую девушку, мальчик узнал ее.

*11.Задание*

Выберите правильный вариант перевода, обращая внимание на причастия I, II:

A surprised man looked at the woman standing in front of him.

a) Мужчина удивился, и посмотрел на женщину, стоявшую перед ним.

b) Женщина, стоявшая перед ним, удивилась.

c) Удивленный мужчина посмотрел на женщину, стоявшую рядом с ним.

*12.Задание*

Выберите правильный перевод причастия I

Плачущий ребенок

a) a crying child

b) a cried child

13.Задание

Выберите правильный вариант перевода, обращая внимание на герундий:

He was fond of reading adventure books.

a) Ему нравилось читать приключенческие книги.

b) Он любил читать.

c) Он любит читать о приключениях.

*14. Задание*

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.

*15. Задание*

Выберите правильный вариант перевода, обращая внимание на герундий:

He hated being looked at.

a) Ему нравилось смотреть.

b) Он не любил, когда на него смотрели.

c) Он не любил смотреть.

*16. Задание*

Выберите правильный вариант перевода, обращая внимание на герундий:

Instead of making the coat longer you made it shorter.

a) Вы укоротили пальто, a не удлинили.

b) Укоротите пальто, оно длинное.

c) Вместо того, чтобы удлинить пальто, вы его укоротили.

*17.Задание*

Выберите нужную форму инфинитива Simple Active or Passive:

The actor liked ...

a) to interview

b) to be interviewed

c) interviewing

*18.Задание*

Выберите нужную форму инфинитива Simple Active or Passive:

The story ... is not interesting.

a) to be told

b) to be tell

c) to be tolled

d) to tell

*19.. Задание*

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

*20.Задание*

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

*21. Задание*

Выберите нужную форму инфинитива Simple Active or Passive:

The house was too old ...

a) to reconstructed

b) to reconstruct

c) to be reconstructed

d) to be reconstructing

*22. Задание*

Выберите нужную форму: герундий или инфинитив

Don't forget ... me up before you leave

a) wake

b) waking

c) to wake

d) to waking

*23.Задание*

Выберите нужную форму: герундий или инфинитив

You are not allowed ... here

a) parking

b) to park

c) park

d) to parking

*24. Задание*

Выберите нужную форму: герундий или инфинитив

I don't mind ... after the baby for you

a) looking

b) to look

c) to looking

d) look

*25. Задание*

Выберите нужную форму: герундий или инфинитив

They go on ...

a) working

b) to work

c) to working

d) work

Отметьте правильный ответ

Mum won't let me ... to the beach today

a) to go

b) go

c) going

d) to be going

*27.Задание*

Выберите нужную форму: герундий или инфинитив

I heard her ... in New York

a) to sing

b) singing

c) sings

d) to singing

*28.Задание*

Выберите нужную форму: герундий или инфинитив

He made her son ... down the music

a) to turn

b) turn

c) turning

d) turned

*29.Задание*

Выберите нужную форму: герундий или инфинитив

I want him ... to the party

a) invite

b) be invited

c) inviting

d) to be invited

*30. Задание*

Выберите нужную форму: герундий или инфинитив

My parents let me ... what I wanted when I was young

to do

doing

do

being done

2.Прочтите информацию о беспроводных устройствах и скажите их преимущества и недостатки.

**Types of Wireless Devices**

**Radio**

The radio system is one type of wireless data transmission, and it is a wireless media that transfers data by carrying electromagnetic waves with low frequencies to distant locations through an electrical conductor and an antenna. Ham radio enthusiasts share information and serve as emergency communication aids during disasters with their powerful amateur broadcasting equipment and can even communicate digital data over the radio spectrum.

Citizen’s band and maritime radios provide communication services for truckers and sailors. The transmission frequency for information transmitted through a radio system ranges from 10 kilohertz (kHz) to 1 gigahertz (GHz), and the frequencies are regulated by the Federal Communications Commission (FCC). [](https://www.watelectronics.com/wp-content/uploads/5-27-2014-4-01-30-AM.png)

**Wireless Phones**

The evolution of cellular networks is enumerated by generations. Many different users communicate across a single frequency band through Cellular and cordless phones. Cellular and cordless phones are two more examples of devices that make use of wireless signals.

Cordless phones have a limited range but cell phones typically have a much larger range than the local wireless networks since cell phone use large telecommunication towers to provide cell phone coverage. Some phones make use of signals from satellites to communicate, similar to Global Positioning System (GSP) devices.

[](https://www.watelectronics.com/wp-content/uploads/5-27-2014-4-02-19-AM.png)

Wireless Phones

**Other Devices**

Anything that uses radio signals to communicate can be considered as a wireless device. Common devices such as garage door openers, baby monitors, certain video game consoles and walkie-talkies make use of wireless technology.

**Advantages and Disadvantages of Wireless Communications**

**Advantages**

* Any information can be conveyed or transmitted quickly and with a high speed.
* The Internet can be accessed from anywhere and at anytime without the need to carry cables or wires and it improves easy access and productivity.
* Helpful for Doctors, workers and other professionals working in remote areas as they can be in touch with the medical centers through wireless communication.
* Emergency situations can be alerted through wireless communication. The affected regions can be provided support with the help of these alerts through wireless communication.
* Wireless networks cost less for installation and maintenance.

**Disadvantages**

* A Hacker can easily capture the wireless signals that spread through the air.
* It is very important to secure the wireless network so that the information cannot be exploited by unauthorized users, and this also increases the risk of losing data or information.

Thus, Wireless networks are one of the fastest growing technologies in telecommunications market. WiMax, Bluetooth, Wi-Fi, Femtocell and 4G are some of the most significant standards of Wireless technology for the next generations. Radio, Mobiles, Internet, etc., all use technological advancements in wireless data transmission systems that carry invisible electromagnetic waves to transmit data over long distances within a short amount of time. The information provided in this article will be helpful to the viewers.

“What are the New Advanced Technologies in Wireless Communication?”

Get answers from the online tech support now, or contact us by commenting below.

# Практическая работа №11

**Дифференцированный зачет**

|  |  |  |
| --- | --- | --- |
| to surf the Internet/Net |  | бродить по сети |
|  | | |
| website |  | вебсайт |
|  | | |
| To visit a web site |  | посещать вебсайт |
|  | | |
| On line |  | режим онлайн |
|  | | |
| To work on line |  | работать в режиме онлайн |
|  | | |
| e-mail |  | электронная почта |
|  | | |
| To send e-mails |  | посылать электронные письма |
|  | | |
| hyperlink |  | гиперссылка |
|  | | |
| To create hyperlinks |  | создавать гиперссылки |
|  | | |
| password |  | пароль |
|  | | |
| To enter a password |  | вводить пароль |
|  | | |
| login |  | регистрация |
|  | | |
| Remote login |  | дистанционный вход в систему |
|  | | |
| Search engine |  | поисковая система |
|  | | |
| Convenient search engine |  | удобная поисковая система |
|  | | |

2.Прочтите текст и передайте главную мысль в 5-8 предложениях

The Internet is a huge network of computers connected with each other serving millions of users all over the world. The origin of public Internet goes back to the late 70s and since that time the number of users has been increasing. The Internet is very helpful in our everyday life. It supports a variety of services. First of all one can easily find any sort of information and share it with others. It’s also possible to create your own web sites and publish ideas and information for a large audience. It’s very convenient to advertise goods on the Internet as well as to buy them. Secondly, the Internet serves for people’s communication. You can make calls and take part in on-line tele- and video conferences. One of the most popular services is e-mail (electronic mail) which is much cheaper and quicker than the ordinary mail. You can exchange messages, photos, films and lots of other stuff using it. And finally, the Internet is used for transferring large amounts of data across it.

People exploit the Internet in order to access news, weather and sports reports or what is more to plan and book holidays. It also provides great opportunities for keeping in touch with friends and relatives or to find someone.

There are two basic ways of going on the Internet for searching information. If you know the internet address you just enter it and find what you need. If not, you should use a search program. The most popular ones are Google, Yandex, Rambler or Yahoo. In these programs we can just type the word or name of thing we would like to find and then press «enter». As soon as we get our results we simply choose whatever site best matches our query.

It is estimated that thirty five to forty million users currently are on the Internet. The Internet calls last longer than the average regular telephone calls. This can cause an overload and, in turn, cause telephone network to fail.

In conclusion, I’d like to say that the Internet plays a great social role in our life but in order to keep it usable and fast, we must improve the telephone lines and means of access and also be reasonable in usage.

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