



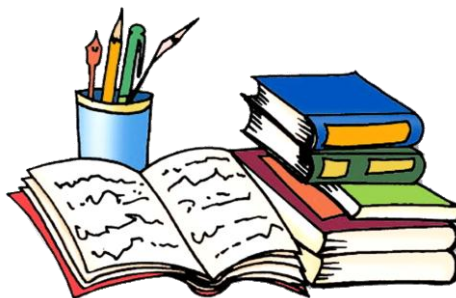
NAMANGAN DAVLAT UNIVERSITETI

Fakultetlararo chettillar kafedrası

Study English

Fizika-matematika fakulteti talabalari uchun ingliz tili fanidan

O'QUV- USLUBIY QO'LLANMA



NAMANGAN - 2008

Ushbu o`quv qo`llanma «Fakultetlararo chettilar» kafedrasida muhokama qilingan va ma`qullangan. (Bayonnoma №____) va NamDu o`quv – uslubiy kengashining «28» avgust 2008 yil № 1 sonli qarori bilan tasdiqlangan.

Tuzuvchi: Abdullaeva N.

Taqrizchi: katta o`qituvchi: Yu.Hushvaqova

Ma`sul muxarrir: Pedagogika fanlari nomzodi: S.Misirov

So'z boshi

Ushbu o'quv uslubiy qo'llanma oliy o'quv yurtlarining fizika-texnika yo'nalishi III-bosqich talabalarining Ingliz tili darslari uchun mo'ljallangan bo'lib 40-soat amaliy mashg'ulotni o'z ichiga olgan. Har bir Lesson 6-soatga rejalashtirilgan. Har bir dars leksika, grammatika, fonetika mavzularini o'z ichiga olgan. Mustahkamlash uchun misollar mashqlarda yoritib berilgan.

LESSON ONE.

Text: A new microcomputers.

Lexics: Word study.

Grammer: The Perfect Continious Tense.

Solving problems.

I. A NEW MICROCOMPUTER

An entirely new microcomputer has been developed in our country . The microcomputer is equipped with an ariphmetical logical device which carry pre-set programmes . Because of this the microcomputer can perform various functions. It is easy to change commands or add new ones .The new computer is very small in size and weight is resistant to temperature fluctuation does not require special ventilatuon and easy to operate. It can be used in computer control complexes as an information-processing unit and also as abuilt-in computer in various analysing and display devices .It receives data ,calculates the optimum conditions and supplies signals for the control of tecnologecal processes. For example ,in pressure-die casting the microcomputer receives information about the temperature in the furnase ,the speed of the liquid metal movements ,location of the various devices. The programme is written by thechnicians, and the operater inserts the required data.

The field of application of the new computer appears to be vast .It can analyse various substances in oil, gas, chemical and food industries,as well as soil and plants. It can also be used for processing information about conditionsin the environment , for control of conveyors and other equipment.

Words to be learnt

- Add - Qo'shimcha qilmoq
- Entirely - butunlay
- the environment - atrof–muhit
- fluctuation - silkinish
- ventilation – havo aylanishi
- display devices -ko'rsatish mosklamasi
- pressure-die casting – bosim ostida olingan
- the furnase - pechka
- liquid metal – mustaxkam bo'lmagan metal
- vast - keng
- soil - turpoq
- inserts - kirish

II. Working on the text.

Testing:

Exercise 1. The new computer equipped with.....

- A) various commands;
- B) an arithmetical logical device;
- C) special ventilation;

Exercise 2. Filling:

The main characteristics are:

it receives data

it is small in size and weight

GRAMMAR

The Perfect Continuous Tense:

Tugallangan davomli zamonlar ish xarakatni ma'lum bir vaqtda boshlanib davom etayotganini ifodalash uchun ishlatiladi. O'tgan va kelasi tugallangan davomli zamonlarda ish harakatning boshlangich va tugash vaqtlari ko'rsatiladi. Ushbu zamon quyidagi formula asosida yasaladi.

Ega + (have, has, had, will have, shall have) + been + asosiy fe'l PI

I have been waiting for you for an hour.

So'roq shaklini yasash uchun birinchi ko'makchi egadan oldinga o'tadi.

(Have, has, had, will have, shall have) + ega + been + asosiy fe'l PI

Have I been waiting for you for an hour?

Inkor shaklida esa birinchi ko'makchi fe'ldan so'ng not inkor yuklamasi ishlatiladi.

Ega + (have, has, had, will have, shall have) not + been + asosiy fe'l PI

I have not been waiting for you for an hour.

Aniq vaqt asosan "since, for" predloqlari bilan ko'rsatiladi. Agar ish harakatning boshlangich nuqtasi aniq bo'lsa "since" predlogi, agar boshlangich vaqt gap ma'nosidan bilinib tursa "for" predlogi ishlatiladi.

It has been snowing since 6 o'clock.

It has been snowing for 6 hours.

III. Lexical and grammar exercises.

Exercise 1. Retelling

Science and Profits.

Faraday's discoveries in the field of electromagnetism attracted much attention but their importance was little understood. One day a member of parliament visited Faraday and asked him to show some of his experiments. Faraday demonstrated the phenomenon of induced currents.

"What is the use of it?" asked the visitor.

"Soon you will be able to tax it," was the scientist's answer.

Profit - foyda

To attract - jalb qilmoq.

Induced currents- quzgaluvchi elektr toki

To tax- soliq to'lamoq.

Exercise 2. Translate into Uzbek.

- I have been waiting for you an hour and a half.
- How long have you been doing this translation.
- What has he been doing since last month?
- This dress had been wearing for a long time.
- The film will have been going on since September.
- Will you have been waiting for me in that time.

Exercise 3. Filling in brackets.

- a) The rain started two hours ago. It's still raining now. It for two hours.
- b) We started waiting for the bus 20 minutes ago. We're still waiting now. We..... for 20 minutes.
- c) I started Spanish class in December. I'm still learning Spanish now. Isince December.
- d) Ann began looking for a job six months ago. She's still looking now.....for six months.
- e) Mary started working in London on 18 January. She's still working there now..... since 18 January.
- f) Years ago you started writing to a penfriend. You still write to each other regularly now. We for years.

Exercise 4. Translate into English.

a) U anchadan beri ingliz tili o'rganayapti. b) Bizning fizika o'qituvchimiz ikki yildan buyon ilmiy ish bilan shug'ullanayapti. c) Studentlar yangi so'zlarni ko'rib chiqdilar va tekstni 15 minutdan beri tarjima qilishayapti. d) Biz kelganimizda oyim 1 soatdan beri ovqat pishirayotgan edi. e) Nima uchun guruh sardori darsga kelmayotgan edi. f) Kelgusi yili mart oyida siz hali ham do'stingizni kutayotgan bo'lasizmi.

Exercise 5. Brush up your grammar.

Father: My dear child, why don't you want to marry?

Mr. Good heart? He really and truly loves you.

Daughter: How do you get to know that, dad?

Father: Because I've been borrowing money of him for months, and still he keeps coming.

IV. Solving problems.

A crate whose mass m is 360 kg rests on the bed of a truck that is moving at a speed v_0 of 120 km/h, as in Fig. 5-7 a. The driver applies the brakes and slows to a speed v of 62 km/h in 17 s. What force acts on the crate during this time? Assume that the crate does not slide on the truck bed.

LESSON TWO.

1.Text: Radio and TV today

2.Lexics: Word study.

3.Grammer: "used to and would" iborasi

4.Solving problems.

RADIO AND TV TODAY

More than ninety years passed sinse the day when the Russian scientist Alexander Popov demonstrated his "storm indicator" which was the prototype of modern radio receivers.

Great progress has been made in radio engineering, radio communications, radio broadcastings and television since that time. We have become so used to these means of communication that we can't imagine our life without all this.

In the modern world, radio and television play an important role as a mass media of information and as a means of people's political and cultural education.

Moderen means of radio engineering cover the greater part of the globe with long, medium and ultra-short radio waves. New radio stations are being built and equipped with the most modern instruments.

Television is also developing rapidly in our country.

There is regular international exchange of TV programmes as well. Our television is linked up with Intevision and Eurovision international systems.

Work on the improvement of space television and broadcasting is of great interest. The application of powerful outerpase relays makes possible televising programmes directly to huge territories.

Much has been done to develop radio broadcasting and television in our country but still more remains to be done in the future.

Words to be learnt

- Aim - maqsad
- Application - talab
- Broadcast –radioga tarmoq
- Conduct – o'tkazmoq
- Engineering – texnika
- Link – boglamoq
- Rapedly – tez
- Receiver – radiopriyomnik
- Transmit – jo'natmoq

II . Working on the text

Exercise 1. Answer the questions.

- 1) When did Alexander Popov demonstrate his “storm indicator”?
- 2) What was the “storm indicator”?
- 3) Why can't we imagine our life without radio and television?
- 4) How many radio broadcasting stations work in our country?
- 5) Where is the central television centre housed?
- 6) What is the aim of radio and TV?

Exercise 2. Translate the following word combinations.

- 1) radio, radio wave, radio wave length;
- 2) electricity generation, electricity generation methods;
- 3) power, power station, atomic power station capacity
- 4) space, space television, space television application
- 5) Television, television studio television studio equipment

GRAMMAR

“Used to va would” iborasi

O'tgan zamonda takrorlanib turgan ish xarakatni yoki holatni ifodalash uchun ingliz tilida "Used to va would" iboralari ishlatiladi.

- I. Agar o'tgan zamondagi takrorlanib turgan ish xarakat yoki holat hozirgi zamonga ifodalansa "Used to va would" iborasi ishlatiladi. So'roq va ishkor shakillari deyarli kam uchraydi.

Example: 1) People used to think that the earth wasn't round.
Avvallari odamlar yerni aylana emas deb o'ylar edilar.

2) Life is not difficult now in the North as it used to be.
Xozirda shimolda xayot avvalgidek qiyin emas.

II. Agar o'tgan zamonda vaqti-vaqti bilan takrorlanib turgan ish xarakatni yoki xolatni hozirgi zamonga qiyoslamay ifodalash uchun would fe'li infinitivsiz ishlatiladi.

Example: 1) She would walk to the station when the weather was fine.
Ob-xavo yaxshi bulganda u stantsiyaga piyoda borar edi.
2) They would sit before the open windows watching the busy life of the street. Ular ochiq deraza oldida tirband ko'chaga tikilib o'tirishga odatlangan edilar.

III. Lexical and grammar exercises.

Exercise 1. Translate into Uzbek.

- 1) This is the town I used to live in
- 2) In the evenings Mr. Brown would come to their place and they would play a game or two of chess.
- 3) She would sit before the open window watching with interest the busy life of the street.
- 4) The two sisters are no longer as much alike as they used to be.
- 5) It is pity she can't sing as she used to any longer.

Exercise 2. Complete the sentences using “used to” or “would”.

Use the verb in brackets.

- 1) I haven't been to the cinema for ages. We ... a lot. (go)

- 2) I asked the driver to slow down. She ... too fast. (drive)
- 3) When I was a child, a lot bad dreams. (have)
- 4) "Do you do any sports?" "Not these days. I ... (play) volleyball"
- 5) The children always came to see their grandmother on Sundays. She ...them delicious pastries. (give)
- 6) When people met him in the street they ... and pretend not to know him. (turn away)

Exercise 3. Translate the sentence into English.

- 1) U samolyotda borishga odatlangan edi.
- 2) Men uni bilardim.
- 3) Mening oyim barcha uy ishlarini o'zi bajarishga odatlangan edi.
- 4) Dadam bunday savolni so'raganda kulib turardi va hech nima demasdi.
- 5) Futbolchalik sport o'yini yo'q der edi.
- 6) Qanchalik tez-tez diktant yozib turardinglar, maktabda?

Exercise 4. Brush up your grammar.

As you like it

An old sea captain used to wear his shabbiest clothes when abroad. He didn't care. He said how he was dressed, because nobody knew him there. When at home he would go dressed in exactly the same way, because he said, here everybody knew him.

IV. Solving problems



LESSON THREE.

- I. Text: Albert Einstein.**
- II. Lexics: Word study.**
- III. Grammar: Types of questions**
- IV. Solving problems.**

ALBERT EINSTEIN

Albert Einstein a well-known German physicist and mathematician was born in Germany on March 14, 1879. His usual ability to mathematics and physics began to show itself at a technical school in Zurich. At the age of 21, after 4 years of University study, Albert Einstein got a job as a clerk in an office. But already in 1905, he made revolutionary discoveries in science; he published three papers in the field of Physics and Mathematics. In the first he explained the photoelectric effect by means of Planck quantum theory. The second paper developed a mathematical theory of Brownian motion. He presented his third paper on "Special Theory of Relativity" to a physical journal. He expressed his theory in the equation $E=mc^2$, that energy equals mass times the square of the speed of light. All over the world scientists read the work and understand its importance of that time. Albert Einstein's fame among scientists grew slowly. For a few years he lived in Prague where he worked as a professor. He liked questions and answered them at once, for there were no simple or foolish questions for him. In 1921 Albert Einstein got the Nobel Prize in Physics not for the theory of relativity but for a logical explanation of photoelectric effect.

Words to be learnt

- Ability - qobiliyat
- Zurich - Surix (Shvetsariya shahri)
- Clerk - xizmatkor
- Discovery - kashfiyot
- To publish - nashr qilmoq
- Effect - natija
- By means of - sababli
- Quantum - kvanium
- Equation - tenglama
- Fame - obro'
- Grew - o'sdi
- Prague - Praga

- Foolish - ahmoqona

II. Working on the text.

Exercise 1. Answer the questions.

- 1) What was Albert Einstein?
- 2) When and where was he born?
- 3) What discoveries did Albert Einstein make in 1905?
- 4) In what equation did he express his theory of relativity?
- 5) What prize did Albert Einstein get in 1921?

Exercise 2. Translate into English.

- 1) Albert Enshtein XX asrning buyuk fizigi edi.
- 2) Unda matematika va fizikaga zo'r qobiliyat bor edi.
- 3) Bir necha yil Albert Enshtein Pragada yashadi va universitetda fizikadan dars berdi.
- 4) 1905 yilda u bir necha ilmiy kashfiyotlar qildi.
- 5) Hamma olimlar uning g'oyasidan hayratlanishdi.
- 6) Albert Enshtein doimo o'zini studentlariga masalalar yechishda yordam berar edi.

GRAMMAR

Types of question (So'roq gap)

Ingliz tilida 4 hil savol turi mavjud:

1. General question (Umumiy so'roq gap).
2. Special question (Mahsus so'roq gap).
3. Alternative question (Tanlov so'roq gap).
4. Disjunctive question (Tasdiq so'roq gap).

1. Umumiy so'roq gapning hammasiga tegishli bo'ladi va "yes", "no" javobini talab qiladi. Bu so'roq zamoniga qarab "to be, to have, to do" ko'makchi fe'llarining tegishli shakllarini agar madal fe'lli gap bo'lsa ushbu madal fe'lni egadan oldin qo'yish bilan yasaladi.

Example: Did you show your new work yesterday?

Yes, I did *yoki* No, I did not

Could they do their reseach?

Yes, they could *yoki* No, they couldn't

2. Maxsus so'roq gapning alohida bir bo'lagiga qaratiladi. Mahsus so'roq gap mahsus so'roq so'zlar (Who, what, why, where, when, how, how many, how

much) bilan boshlanadi va so'roq so'zdan keyingi so'z tartibi umumiy so'roq gapdagidek bo'ladi. Javob to'la qonli tarzda qaytariladi.

Example: Why did you come to your office in that day?
Faqat gapning egasiga savol berilsa ko'makchi fe'l ishlatilmaydi.

Example: Who come to your office in that day?

3. Tanlov so'roq gaplar "or" (yoki) bog'lovchisi orqali yasaladi va ikkita umumiy so'roq gapdan iborat bo'ladi. Javob tanlash orqali bo'ladi.

Example: Do you go to school or your sister does?
My sister goes to school.

4. Tasdiq so'roq gaplar 2 qismdan iborat bo'ladi. Birinchi qismi darak gap tartibida, ikkinchi qismi umumiy so'roq gap tartibida bo'ladi. Agar birinchi gap bo'lishli bo'lsa, ikkinchi gap bo'lishsiz yoki aksincha birinchi gap bo'lishsiz bo'lsa, ikkinchi bo'lishli bo'ladi. Bu gap turi javob talab qilmaydi.

Example: Ali went to Tashkent 2 days ago, didn't he?
Your baby doesn't like to have medicine, does he?
They could play the piano, couldn't they?

III. Lexical and grammar exercises.

Exercise 1. Change the sentences into general questions.

- 1) It's our classroom.
- 2) Peter is sitting at the window.
- 3) Students are writing.
- 4) We work at the laboratory.
- 5) Ali receives a letter.
- 6) Teachers have already marked the homework.
- 7) We heard a lot of things by the radio.
- 8) Students of Albert Einstein used to solve difficult problems.

Exercise 2. Put the special questions to the underlined words.

- 1) There is a nice park in our city.
- 2) They have never been to any foreign countries.
- 3) These friends had translated two English books.
- 4) I asked you to bring me the new journal.
- 5) The students went to the library yesterday.
- 6) My friends had done the experiment last year.
- 7) Some people are doing well in Physics.
- 8) One of us must go in for sport.

Exercise 3. Make the alternative questions for the underlined words.

- 1) Albert Einstein was born in Germany.
- 2) He was a famous physicist.
- 3) He had two sons
- 4) In 1905 Albert Einstein made revolutionary discoveries in science.
- 5) My friend doesn't like Physics
- 6) This diagram will help to solve your problem.
- 7) He presented his works to Physical journal.
- 8) Mr. Hall teaches Physics at a technical college.

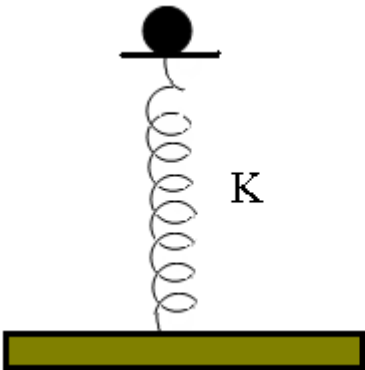
Exercise 4. End the situation with tag questions.

- 1) You need a pen. Perhaps Jane has got one. Ask her. Jane, you haven't got a pen, have you?
- 2) Jack is just going out. You want him to get you some stamps. Ask him. Jack, you _____
- 3) You are looking for Ann. Perhaps Helen knows where she is. Ask her. Helen, you _____
- 4) You need a bicycle pump. Perhaps Helen has got one. Ask her. Helen, you _____
- 5) You are looking for your keys. Perhaps Robin has seen them. Ask him. Robin, you _____.

IV. Solving problems

CONSERVATION OF ENERGY

11E Figure 8-25 shows an 8.00-kg stone resting on a spring. The spring is compressed 100 cm by the stone (a). What is the spring down an additional 30.0 cm and released. What is the potential energy of the compressed spring just before that release? (c) How high above the release position will the stone rise?



a) 7.84 N/cm

b) 62.7 J

c) 80.0 cm

LESSON FOUR

- I. Text: What are electrons?**
- II. Lexics: Word study.**
- III. Grammar: Compound sentences.**
- IV. Solving problems**

WHAT ARE ELECTRONS?

Electrons are the tiniest invisible particles having a negative electric charge. As small as atoms are (one hundred millions atoms can be placed on the head of a small pin) electrons are very much smaller, for they go around and around inside atoms and there is still much free space left. There are more electrons in a large drop of water than there are drops of water in the Atlantic Ocean so you can imagine how tiny they are. All atoms contain electrons – and everything, everywhere is made of atoms. And you, and I and everybody are made up of atoms, so we are made up of trillions of electrons.

The same is true about everything else in the world paper, metals, wood, air, water and all the other forms of matter – they all contain these invisible negative electric charges. Now you must remember that an electric current is a flow of electrons going from one piece to another just as the current in a stream is the flow of water going from one place to another. It's the same with an electric current the faster the flow of electrons, the stronger the current.

Words to be learnt

- Tidy - mayda
- Invisible - ko'rinmas
- Particle - qism
- Charge - zaryad
- Pin - to'g'nag'ich
- Left - qolmoq
- Space - bo'shliq
- Drop - tomchi
- Matter - materiya, mavjudot
- Current - oqim, tok
- Flow – oqmoq

II. Working on the text.

Exercise 1. Put the words in correct order.

- 1) True, about, the, same, is, in, world, the, everything, else.
- 2) Are, more, there, water, electrons, drop, of, in, a.

- 3) Made, atoms, of, up, paper, wood, metals, are.
- 4) Are, there, pin, a, head, of, more, in, millions, than, atoms, of.

Exercise 2. Find from the text the English equivalent.

- Atomlardek kichik;
- Elektronlar;
- yanada kichik;
- tomchi suv;
- boshqa barcha turdagi material;
- elektr toki bilan ham xuddi shinday;
- ana endi;
- esda saqlash lozim;
- elektronlar qanchalik tez harakatda bo'lsa.

GRAMMAR

Compound sentence (Qo'shma gaplar)

Ingliz tilida qo'shma gaplar (compound sentence) ikkiga, bog'langan qo'shma gaplar va ergashgan qo'shma gaplarga bo'linadi. O'zbek tilidagidek ingliz tilida ham qo'shma gaplar ikki yoki undan ortiq sodda gaplarni ma'no jixatdan bog'lovchilar orqali bog'lanishidan xosil bo'ladi.

I. Bog'langan qo'shma gaplar **and, but, or** bog'lovchilari bilan bog'lanadi.

EXAMPLE: 1) My sister came and we went to our parents.
2) Our teacher explained the rule but I didn't understand.
3) Please come in time or everybody will upset.

II. Ergashgan qo'shma gaplar bitta bosh gap va ikki yoki undan ortiq ergashgan gaplarning ma'no jixatidan bog'lovchilar yordamida bog'lanishidan xosil bo'ladi. ergashgan qo'shma gaplar quyidagilarga bo'linadi.

1) Ega ergash gapli qo'shma gaplar (The Subject Clause). Ushbu turdagi qo'shma gaplarda **that, what, who, where** bog'lovchilari ishlatiladi va ergash gap bosh gapning egasiga qaratilgan bo'ladi.

EXAMPLE: What is translated is sighed at once.

2) Kesim ergash gapli qo'shma gaplar (The Predicative Clause) **that, what, who** bog'lovchilari bu qo'shma gap turida ishlatiladi.

EXAMPLE: The difficulty of this translation is that it has many unknown words.

- 3) To'ldiruvchi ergash gapli qo'shma gaplarda (The object Clause) zamonlar moslashuvini unutmash kerak, chunki ergash gapni kesimi bosh gapni kesimiga ingliz tilida doimo moslashib keladi. Bu zamonda **that, if, whether** bog'lovchilari ishlatiladi.

EXAMPLE: My friend said that he wanted to become an engineer.

- 4) Aniqlovchi ergash gapli qo'shma gaplar (The Attributive Clause) who, **whom, whose, which, that, when, where, why** bog'lovchilari bilan va bog'lovchisiz bosh gapga bog'lanadi.

EXAMPLE: The text, which the student is reading, is about our cosmonauts.

- 5) Xol ergash gapli qo'shma gaplar *joy, vaqt, sabab, maqsad, shart* qo'shma gap turlariga bo'linadi. Bu qo'shma gapda, **if, in case, provided, providing, unless, but for** bog'lovchilari ishlatiladi.

EXAMPLE: Our students always took part in the discussions unless they were busy.

III. Lexical and grammar exercises.

Exercise 1. Translate the sentences. Pay attention to the conjunction.

1. He knows that we'll be back at 5.
2. Our new comer told us which cities she had been
3. I'm going to tell you tomorrow about a girl who he is going to India
4. Can you tell us what you have decided to do?
5. I recently went back to the town where I was born.
6. What's the name of the man whose car you borrowed?
7. I'll never forget the time when I see you the first.
8. The woman whom I wanted to see was away on holiday.

Exercise 2. Complete the sentences

1. I didn't get the job which _____
2. Who was that man whom _____
3. I gave her the money that _____
4. A days ago I not some one whose _____
5. I want to go to a place where _____
6. At live o'clock when _____
7. My mother called me _____

Exercise 3.Translate into English

- Televizorda raqsga tushayotgan qizlarni ko'rdim.
- Men suhbatlashgan kishilar juda yaqin do'stlar edi.
- Ana u erdagi magazinda ishlaydigan ayol mening qo'shnim.
- Mehmonlar joylashgan mehmonxona toza emas edi.
- Talaba uchrashmoqchi bo'lgan professor allaqachon ketib bo'lgan edi.
- Bu siz qidirayotgan kitoblarmi?

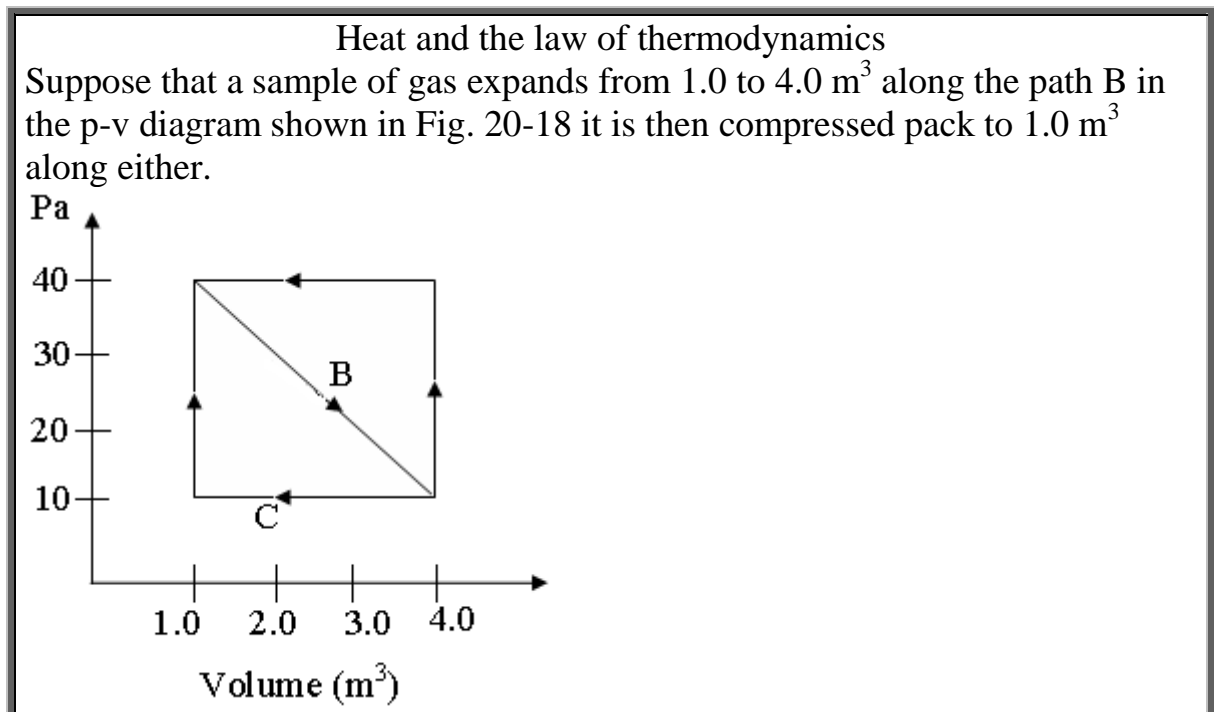
Exercise 4 .Brush up your grammar.

Spelling

A man who was practically no education was writing a letter which had been to passed to his pen friend whom he didn't know yet.

He would make mistakes in almost every word he wrote "What a terrible spelling you have got!" explained his neighbor who just came in "Well, how can one write well with a pen like that" said the man. "If I had a better pen, I should certainly write better grammar".

IV. Solving problems



LESSON FIVE

I. Text: Laser

II. Lexics. Working with vocabulary

III. Grammar. Direct and indirect speech

IV. Solving problems

LASERS

The laser has become a multipurpose tool. It has caused a real revolution in technology. Atoms emit rays of different length which prevents the forming of an intense beam of light. The laser forces its atoms to emit rays having the same length and traveling in the same direction. The result is a narrow extremely intense beam of light that spread out very little and is therefore able to travel very great distances. The most common laser is the helium neon laser in the laser tube, there being 10 percent helium gas and 90 percent neon gas. The electrons get energy from a power supply and become “excited” giving off energy as light. The first laser having been built in 1960, scientists developed several types of lasers which make use of luminescent glass, a mixture of various gases and finally, semiconductors. The most interesting thing about semiconductor lasers is that they are able to transform electric energy directly into light wave energy. The laser will find its most extensive application in the future and the potential importance of these applications continues to stimulate new development in the laser field.

New words to be learnt

- Multipurpose tool –
- Emit – *Нур тарقاتмоқ;*
- Ray – *нур;*
- Length – *узунлик;*
- Prevent – *халақит қилмоқ;*
- Intense – *тезкор, интенсив;*
- Beam – *нур;*
- Therefore – *шунинг учун;*
- Helium – *гелий (газ нури);*
- Neon – *нион (газ нури);*
- Tube – *труба;*
- Power supply – *қувват манбаи;*
- Luminescent – *ярақловчи;*
- Semiconductor – *яримўтказгич;*
- Transform – *айлантирмоқ;*
- Extensive – *кенг миқёсда;*

II. Working on the text.

Exercise 1. Answer the questions.

1. What is a laser?
2. What is the function of a laser?
3. What beam of light does a laser produce?
4. When was the first laser built?
5. When will a laser find the most extensive applications?

Exercise 2. Complete the sentences.

1. its atoms to emit rays.
2. The most common laser
3. are able to energy.
4. The first laser
5. its most extensive
 - In the laser field

GRAMMAR

Direct and indirect speech (Ko'chirma va o'zlashtirma gap).

Ingliz tilida ko'chirma gapni o'zlashtirma gapga aylantirganda quyidagicha o'zgarishlar bo'ladi:

- I. Ko'chirma gapdagi egalik va keshilik olmoshlari o'zlashtirma gapda ma'nosiga qarab o'zgaradi.

Example: He said "I write my letter" (ko'chirma)
He said he wrote his letter.

- II. Zamonlar moslashuviga binoan ko'chirma gap o'zlashtirma gapga aylantirilganda fe'lda ayrim o'zgarishlar bo'ladi.

Example: My father says "I go and see a doctor".
My father said that he went and saw a doctor.

- III. Gapning turiga qarab quyidagi bog'lovchilar ishlatiladi.

1. Agar darak gap bo'lsa "that"
2. Maxsus so'roq gap bo'lsa tegishli so'roq so'zlar bog'lovchi vazifasiga o'tadi.
3. Umumiy so'roq gap bo'lsa "If" *yoki* "whether" ishlatiladi.

Example: You asked me "Do you go?"
You asked me "If I went"

IV. Agar avtor gapida “to say” fe’lidan keyin to’ldiruvchi “to” yuklamasi kelsa o’zlashtirma gapda “to say” fe’li o’rniga “to tell” fe’li, to’ldiruvchi esa “to” yuklamasisiz ishlatiladi.

Example: The doctor says to me “I will see you tomorrow”.

The doctor told me that she would see me the next day.

V. Agar ko’chirma gap buyruq shaklida bo’lsa, avtor gapida “order” fe’li ishlatiladi, ko’chirma gapdagi fe’l “to” yuklamasi bilan, agar gap inkor bo’lsa “not to” yuklamasi bilan ishlatiladi.

Example: My mother said “Go to bed”.

My mother ordered to go to bed.

My mother said “Don’t go to bed”.

My mother ordered not to go to bed.

III. Lexical and grammar exercises.

Exercise 1. Yesterday you met your friend Charlie. Here are some of the things Charlie said to you:

1. I’m living in London now.
2. My father isn’t very well.
3. Sharon and Paul are getting married next month.
4. Margaret has had a baby.
5. My car was stolen a few weeks ago.
6. I’ll tell Ann about you.

Now can you tell me Charlie’s sayings. Use indirect speech.

Exercise 2. Here are some things that Ann said to you:

1. Dave is lazy.
2. I don’t have any brothers and sisters.
3. I’ve never been to the United States.
4. I can’t drive.
5. Jane has a very well – paid job.

But later Ann says something different to you. What do you say?

Ann's word	Your word
1. Dave works very hard. 2. Jane is always short of money. 3. My sister lives in London. 4. I think New York is a fantastic place. 5. I'm going to buy a car.	1. But you said he was lazy. 2. 3. 4. 5.

Exercise 3. Translate into English.

1. "Mening ota-onam Toshkentda". Nasiba ota-onasi toshkentdaligini aytdi.
2. Men Jonni vecherinkada ko`rdim. U Jonni vecherinkada ko`rganligini aytdi.
3. Men ertaga kechqurun ishlamoqchiman. Jyudi ertaga kechqurun ishlamoqchiligini aytdi.
4. Bir necha kun yoting! Vrach menga bir necha kun yotishim kerakligini aytdi.
5. Baqirma! Men ukamga baqirmasligini aytdim.
6. Derazani ochib yubora olmaysizmi? Men do`stimdan derazani ochib yuborishligini so`radim.

Exercise 4. Brush up your grammar. Turn into indirect speech.

Sense of Time

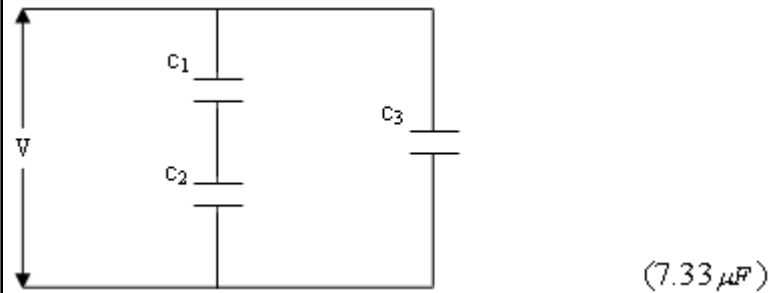
Wife: It's two o'clock. I'm running to my dressmaker's and I will be back in half an hour.

Husband: Don't be two long teas. At least don't be late for dinner. Remember that we always have dinner at eight o'clock sharp.

IV. Solve the problem.

CAPACITANCE

In fig. 27-25 find the equivalent capacitance of the combination, Assume that $c_1=10.0 \mu F$, $c_2= 5.00 \mu F$ and $c_3= 4.00 \mu F$



LESSON SIX

- I. Text. In the hostel.**
- II. Lexis: Working with vocabulary.**
- III. Grammar: Subjunctive mood.**
- IV. Solving problems.**

IN THE HOTEL

An extra mural student Azizov, who lives in the country comes back home from Tashkent where he took his examinations at one of the Universities. He meets a friend of his Nosirov who asks him a number of questions about his life in the city.

N: Where did you live in Tashkent?

A: They put me at one of the hostels of our University. The windows of my room were looking on to a big park.

N: How long did it take you to get to the University?

A: Not very long, ten minutes by bus or about twenty minutes on foot.

N: Are they big buildings?

A: Quite big. Two-four-storey buildings with two kitchens with gas ranges on each floor. There are also shower baths with hot water.

N: Are the rooms comfortable?

A: Yes quite. There's plenty of light coming in through two big windows, Built in wardrobes, bookcases, three to four beds, tables chairs, loudspeakers.

N: Who does the rooms?

A: The students themselves look after their rooms. They also take turns in cleaning the corridors.

N: Do the students cook their food in the kitchens or have their meals in the dining-hall?

A: They usually prepare their breakfast and suppers themselves in the kitchen, but as to dinner, they have it in the dining hall.

N: Where do the students spend their free time? Are there any clubs?

A: Sometimes they go to the theatre, cinema or to the concert. But as a rule they spend their free time at the student's club where they take part in different amateur activities, study foreign languages and so on.

New words to be learnt

- Extra mural – *сиртқи*;
- Number of – *бир қатор*;
- Built in wardrobes – *ясалган шкафлар*;
- Who does – *ким йиғ'иштиради?*
- Take turn – *навбатлашмоқ*;
- As to dinner..... – *обедга келганда*
- Amateur – *кўнғилочар*;
- Activity – *ҳаракатлар, фаолият*.

II. Working on the text.

Exercise1. Find in the text equivalents of following words and expressions

Albatta, sirtqi ta`lim talabasi imtixon topshirgan, 2-4 qavatli, unchalik uzoq emas, bir dunyo yorug'liq, bo'sh vaqtni o'tkazmoq

Exercise2. Solve the test

1. Azizov is who took his examinations
 - a) *graduate*
 - b) *student of first course*
 - c) *an extra mural student*
2. How long does it take Azizov to get to the University?
 - a) *about 15 minutes*
 - b) *more than 10 minutes on foot*
 - c) *about 20 minutes on foot*
3. Where do the students go after study?
 - a) *They go to the theatre, cinema*
 - b) *They go home*
 - c) *They go to the library*

GRAMMAR

The subjective mood

O'zbek tilidagi kabi Ingliz tilida 3 ta mayl mavjud.

1. Indicative mood (aniq mayl).
2. The imperative mood (Buyruq mayl).
3. The subjunctive mood (Shart mayli).

Ingliz tilida shart (the subjunctive mood) extimollik tahminiy va norial ish harakatni ifodalash uchun ishlatiladi. Bu maylni ikkita shakli mavjud:

1. The subjective I (Shart mayli I). Bu mayl sodda gaplarda, qo'shma gaplarning bosh gap qismida ishlatiladi.
 - a) Agar gap hozirgi va kelasi zamonga tegishli bo'lsa, shart mayli I "Future in the Past" yani "should/would" oddiy infinitive "to" yuklamasisiz ishlatiladi.

Example: I should go – Men borarman.
He should go – U borar.

- b) Agar gap o'tgan zamonga tegishli bo'lsa, shart mayli I "Future Perfekt in the Past" ga ya'ni "should/would" + perfekt infinitiv "to" yuklamasisiz ishlatiladi.

Example: I should have gone – Men borgan bo'lardim.
He would have gone – U borgan bo'lardi.

2. The subjunctive II (shart mayli II) asosan qo'shma gaplarni ergashgan qismida ishlatiladi va asosan "if" bog'lovchisi bilan keladi.
 - a) Agar gap hozirgi va kelasi zamonga tegishli bo'lsa shart mayli II "Past indefinite" ga to'g'ri keladi.

Example: If I had any free time, I should help

- b) Agar gap kelasi zamonga tegishli bo'lsa shart mayli II "Past ferfect" ga to'g'ri keladi.

Example: If I had any free time, I should have helped.

Shart mayli II da "to be" fe'li barcha shahslar uchun "Were" shakli ishlatiladi, agarda gap hozirgi va kelasi zamonga tegishli bo'lsa. Agar gap o'tgan zamonga tegishli bo'lsa "had been"ishlatiladi.

Example: If I were free, I should help.
If I had been free, I should have helped.

III. Lexical and grammar exercises.

Exercise1. Translate into Uzbek

1. If there were no atmosphere, the surface of the earth would become very hot by day and too cold at night.
2. If it were possible to live on the moon, people would be able to jump about six times as high as they could on earth.
3. I want you to make friends with Nick. It would be nice for you.
4. In your place I shouldn't rely on him.
5. If I had known that you would be hurt I would never have told you about.
6. If you had worked harder last year you wouldn't have made these mistakes.

Exercise2. Complete the following sentences, using the subjunctive mood

1. He would have come to the party if
2. If the director turned up now
3. I shouldn't dare to bother you at such a late hour if
4. If you took part in the next sports competitions
5. If you gave in
6. If this play had been put on at our club

Exercise3. Translate into English

1. Agar ular meni chaqirishmaganda edi, bu ish sodir bo'lmasdi
2. Do'stingiz kelganda yaxshi bo'larmidi.
3. O'qituvchi yangi so'zlarni so'raganda, u javob bera olmasmidi.
4. Agar singlim kelsa edi, biz siznikiga mehmonga borardik.
5. Kompyuterni ishlatishni bilsang edi, bunday o'tirmas eding.
6. Men sizni o'rningizda bo'lsam, telefon qilardim.

Exercise 4. Brush up your grammar.

A man and his old friend met in the street. They hadn't seen each other for a long time. They began to talk their conversation with: "If I were you...."

Now you must continue their talking using the subjunctive

IV. Solve the problem.

FOYDALANILGAN ADABIYOTLAR:

1. L.S Yampolskiy “ Uchebnik angliyskogo yazika ” . Moskva, 1988
2. L.Ivanova. “Uchebnik angliyskogo yazika ”. Toshkent, 1991
3. A.Bonk. “ Uchebnik angliyskogo yazika ” Toshkent, 1997
4. R.Murphy. “ English Grammar in USE”. Cambridge, 2004
5. E.N Zvereva.”Brush up your grammer” 1985
- 6) L.N Andrianova.” Angliyskiy yazik” Moskva, 1990
- 7) Muxitdinova G. Sh “Texnika Oliy O’quv yurtlari uchun Ingliz tili darsligi” Toshkent, 1992
- 8) Marten Sevionyr. “Word Wise” Toshkent, 1997
- 9) Abdalina G.A “ Uchebnik angliyskogo yazika dlya studentov neyazikovix vuzov ” Toshkent, 1996
- 10) Noviskaya T.M “Prakticheskaya grammatika angliyskogo yazika” Moskva, 1983.