Міністерство освіти і науки України
ОДЕСЬКИЙ НАЦІОНАЛЬНИЙ ПОЛІТЕХНІЧНИЙ УНІВЕРСИТЕТ

МЕТОДИЧНІ ВКАЗІВКИ ДО ВИКОНАННЯ КОНТРОЛЬНИХ ЗАВДАНЬ № 1 З АНГЛІЙСЬКОЇ МОВИ

для студентів 1-го курсу
заочної форми навчання

Одеса
ОНПУ
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Затверджено
на засіданні кафедри
іноземних мов
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Методичні вказівки до виконання контрольних завдань № 1 з англійської мови для студентів 1-го курсу заочної форми навчання / Укл.: Л. В. Баклага, М.Г. Томенко, О. В. Лебедєва, О. В. Подвезько. – Одеса: ОНПУ, 2007. – 15 с.

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стор

ПЕРЕДМОВА

Основною метою навчання студентів англійській мові в технічному вузі є досягнення ними практичного володіння цією мовою, що в умовах заочного навчання означає формування вміння самостійно читати іноземні літературні джерела за своїм фахом з метою здобуття інформації. Ця програма передбачає головним чином самостійну роботу студентів.

Методичні вказівки містять тексти з вправами. Цей матеріал повинен допомогти навчити працювати з текстами самостійно і може також використовуватись на заняттях викладачем.

Лексичні та граматичні вправи дають найбільш типові випадки вживання мовного матеріалу тексту. Щоб зрозуміти наукову літературу, треба оволодіти визначеним запасом слів та висловів.

За повний курс навчання студент повинен мати словниковий запас у 500 загальновживаних слів, який є основою для розширення потенціального словникового запасу до 1000-1500 лексичних одиниць.

У процесі навчання необхідно засвоїти основні граматичні явища та структури, характерні для наукових текстів англійською мовою, які подані у вказівках. Кількість вправ, які входять до контрольних завдань, допоможуть досягнути мети.

Студент першого року навчання має виконати 3 контрольні роботи. Кожну письмову роботу необхідно виконувати в окремому зошиті. У разі одержання незадовільної рецензії на роботу, бажана додаткова консультація з викладачем.

У процесі підготовки до заліку студент повинен підготувати 5 с. англійського тексту самостійно (1 с. дорівнює 1500 друкованих знаків).

Контрольна робота №1

Варіант № 1

1. Прочитайте та перекладіть текст.

Computers

Can you imagine what our world would be like if there were no computers to assist calculations. There would hardly be controlled space flights, distant — controlled production processes, etc.

A modern electronic computer is a device in which electronic components such as transistors, are arranged so as to perform various calculations.

There are two general types of computers: analogue and digital.

An analog computer relates physical changes and variables, such as changes of shaft position, changes of voltage, etc. in the form of the mathematical equations.

The digital computer deals with numbers or coded alphabetic characters and performs with them required calculations. In the digital computer the method of representing numbers and all other information is based on the use of binary digits which are represented by electronic signals.

A typical electronic computer consists of: the input-output sections, the storage section, the arithmetic section, and the control section.

The input-output section is the transducer through which the system communicates with the external world. In one direction it processes some physical medium, such as paper or magnetic tape, punched cards, etc., which has been prepared in a language intelligible to the machine.

Storage, or memory, is the nerve center of the machine. It is the section, in which initial data, intermediate results, final results, and the statement of the problem are stored.

The function of the arithmetic section is to perform the arithmetic operations the system is capable of, such as addition, subtraction, multiplication, division, square rooting, etc, as well as certain logical operations. It is there that actual solutions of the problem is done.

Control is the section that interprets the instructions, the machine has been given, and causes the other parts to perform the appropriate functions at the appropriate time. Control is the mastermind of the machine.

2. Перепишіть абзаци 1,3,4,5-й та перекладить їх.

3. Дайте відповідь на запитання.

1. What is an electronic computer?
2. How many types of computers are there?
3. What does a typical electronic computer consist of?
4. What is the function of an arithmetic section?
5. Is control the mastermind of the machine?

4. Перекладіть дані словосполучення

Distant-controlled production processes, electronic components mathematical equations,

binary digits, square root, analogue computer, digital computer.

5. Знайдіть абзаци, в яких іде мова про космічні польоти, про зміну напруг, про перфокарти та про запам 'ятовувальні пристрої.

6. Перекладіть такі речення.

1. No operation more complex than division, multiplication, subtraction or addition is required in solving the problem.
2. The object of this new science is to increase the efficiency of human labour.
3. The statement of the theorem is given to generalize well known Brouwer theorem.
4. It is necessary to have a look at the statement.
5. The objective to be fulfilled was described in the paper.
6. To achieve good results is our task.
7. The electronic computer may be spoken of as one of the cost important inventions of our time.
8. The magnetic tape permits the translation to be transcribed into printed form as a separate operation.
9. The special technical dictionaries in various foreign languages to be translated should be stored separately on a magnetic tape.
10. The system of predictive analysis enables the machine to select the suitable form by its position in the sentence.

7. Перекладіть речення та підкресліть інфінітивні звороти.

1. Desk machines are said to be equipped with automatic multiplication.
2. Modern computers are considered to differ from the old ones.
3. Scientists are known to have developed a new method of computation.
4. We know scientists at Harvard University to have discovered how to analyze the grammatical structure of Russian sentences by computing machines.
5. The introduction of the brain element into manufacturing is likely to increase the productivity per man.

Варіант № 2

1. Прочитайте та перекладіть текст.

Computers

You can make a computer do anything that you can express as a series of arithmetic operations. Most electronic computers can do over ten thousand complicated operations every second.

There are two types of computers nowadays: analogue and digital. An analog computer is a device that simulates the behavior of another system, usually a physical system. The devices known as analogue computers are assemblies of electronic or electrical circuits, the behavior of which is analogues to that of a mechanical system. This analogy is possible because a large number of physical and mechanical systems can be described by mathematical relationships of some kind, usually differential equations.

A digital computer differs from an analog computer in that it deals with numbers and not physicals quantities.

A digital computer or information-processing system may be defined as follows: it is a system or device that produces output information derived from accepted input information by some process of logic.

The basic sections of a digital computer are: arithmetic section, input-output section, storage and control.

The function of the arithmetic section is to perform all of the arithmetic operations of which the system is capable. These may include addition, subtraction, multiplication, division, square rooting etc. The input-output section is the means for entering information into a machine and for withdrawing informatics from it.

Storage is the section in which initial data, intermediate results, final results and the statement of the problem are stored. The statement of the problem to the machine system appears as a list of instructions which direct the system to perform the appropriate manipulations of the data it has been given, it accepts results that have been computed by the arithmetic sections.

Control is the section that interprets the instructions which have been given to the machine and which then causes all other parts to do the appropriate functions at the appropriate time, so as to achieve the desired operation. It is the mastermind of the system.

2. Перепишіть абзаци 1, 3, 7-й та перекладіть їх.

3. Дайте відповідь на запитання.

1. What is a computer?
2. How many types of computers are there?
3. What are the basic sections of a digital computer?
4. Are analogue computers assemblies of electronic and electrical circuits?
5. What is the function of the arithmetic section?

4. Перекладіть дані словосполучення.

analogue computer, digital computer, differential equations, information processing system, electrical circuit, input-output section.

5. Найдіть абзаци, в яких говориться про численність дій, які не може виконувати ЕМО, про арифметичні дії, про запам'ятовувальні пристрої, про блок управління.

6. Перекладіть речення.

1. No mechanical brain so far built can do intuitive thinking.
2. The purpose of the mathematical model was to describe in a quantitative rather than qualitative way the assumed interrelations within a system.
3. An algorithm is given to determine a vector.
4. It is necessary to have a look at the structure.
5. In modern society the number of calculations to be made is vast and varied.
6. To analyze the program is necessary.
7. The electronic digital computer can be compared to the adding machine in its functional aspect.
8. The system of predicative analysis permits a computing machine to approach a translation in the way a human being does.
9. The message to be translated must be transcribed on to a suitable input medium.
10. The schedule of instructions enables the machine to carry out some particular calculation.

7. *Перепишіть речення, підкресліть інфінітивні звороти, перекладіть.*

1. Computing machines in general are said to perform arithmetic operations.
2. Automatic translation seems to be a very specialized application of digital computers.
3. Magnetic tapes are known to have been proposed in connection with digital computers.
4. We know Pascal to have designed an elementary adding machine.
5. The translation by computers is likely to be of tremendous value to scientists.

Варіант № 3

1. Прочитайте та перекладіть текст.

Computers

The most amazing achievement of mankind is no doubt the computer. Its ability to store vast amounts of data in one place, and then find the necessary material marked the end of many problems.

As industry became more familiar with the computer tool, there was a change and important new concepts emerged. Among these there was a better method of planning. This covered scientific computing and research. Here both physical phenomena and economic situations are reduced to mathematical terms.

Simulation is particularly successful in the aerospace and electronic industries.

Another important field of simulation method is in design. Computers can be used to design new random access memories, process control system, and system components.

Better computers are coming from many system improvements such as multi-programming, data-communications, multi-processing, satellite and remote processing etc.

Multi-programming means performing simultaneously on one computer several independent programs. This is done by arranging controls so as to keep the computer's memory, arithmetic unit, printer, magnetic tape, and disc memory all, operating on portions of different programs which can be interlaced.

Multi-processing, an extension of multi-programming, is the addition of several computers to the system complex. This allows several arithmetic and control units to interlace among themselves and along several tapes, printers, disc memories, and punch card peripherals.

Data communications. With the large data input-output capacity that can be achieved using the best communication methods, it is possible to surpass even computers designed today.

Satellite and remote processing. Branches of these system concepts are the ideas of satellite and remote processing. Satellite processing is the term applied to the use of a small computer tied to a large remove computer.

2. Перепишіть абзаци 1,3,4-й та перекладіть їх.

3. Дайте відповідь на запитання.

1. What is a computer?
2. Is simulation successful in electronic industries?
3. What system improvements are better computers coming from?
4. What does multiprogramming mean?
5. What is satellite processing?

4. Перекладіть такі словосполучення.

Process control system, system components, multi-programming, date-communication, multi-processing, satellite processing, remote processing, random access memory.

5. Знайдіть рядки, де іде мова про моделювання, дискові запам'ятовувальні пристрої,

перфокарти, пропускні можливості для вхідної та вихідної інформації.

6. Перекладіть речення.

1. No strict boundaries are set up between calculation and counting and to solve a problem a scientist may use ideas and methods from any of them.

2. The problem is to find the particular method that can be used in
satisfying the data.

3. Many different ways were invented to represent numbers.

4. It is necessary to have a look at the objective.

5. The actions to be done were presented in mathematical terms.

6. To explain the program is desirable.

7. Some arithmetic operations may be described as transition of quantity into quality.

8. A small high-speed store with a capacity of fifty words permits a computer to hold these words at any stage of the translation.

9. A problem to be solved by a digital computer must be expressed in mathematical terms.

10. The analysis enables linguists and mathematicians to correct the machine's program.

7. *Перепишіть речення, підкресліть інфінітивні звороти.*

1**.** The history of automatic computers is said to start with Charles Babbage who was Professor of Mathematics at Cambridge from 1828 to 1859.

2. A digital computer seems to be used in automatic translation of languages.

3. The result of a computation is known to have involved a small error.

4. We know George Boole to have developed a set of rules suitable
for manipulating “yes” or “no” logical propositions.

5. A modern computer is likely to work for at least several hours without a fault.

Варіант № 4

1. Прочитайте та перекладіть текст.

Lathes

The lathe is one of the most important machines is the machine shop. It removes material from a revolving work by using suitably formed cutting tools of hardened, and tempered steel. There are different types of lathes.

The engine lathe is used mostly in tool shops. Because of its ability to perform various kinds of work it requires a great degree of skill to operate.

Engine lathes vary in size, ranging from the small lathe of only a few inches to one many feet in length. The size of the engine lathe is based upon two measurements – the approximate largest diameter that can be revolved over the ways and the total length of the bed.

The turret lathe is equipped with a turret that is of hexogen shape and is used for holding cutting tools.

The rapid production lathe and the automatic lathe are used for the production of small duplicate parts.

The most important parts of the lathe are: bed, carriage, headstock and tailstocks, thread cutting instruments and feeding mechanism.

The bed consists of two heavy metal sides with V-shaped ways formed upon them.

The carriage is the movable part which slides between the headstock and tailstock.

The headstock consists of the headstock casting which is located on the ways at the left of the operator, the spindle in which the live center is held by the necessary mechanisms for obtaining various spindle speeds.

The tailstock is a movable casting located opposite the headstock on the ways. It contains the dead center, the adjusting screw and band wheel.

The thread-cutting mechanism includes any gear or mechanism, which transmits the motion from the main spindle to the lead screw.

The feeding mechanism is a series of gears which transmits motion from the headstock or main spindle to the feed rod. The motion is then transmitted from the feed rod to various gears.

The two lathe centers are used for supporting the workpiece. The dead center is located in the tailstock and does not revolve.The live center is contained in the spindle and revolves with the workpiece. The dead center is to be always kept well lubricated with oil.

2.Перепишіть абзаци 1,7, 8-й та перекладіть їх.

3. Дайте відповідь на запитання.

1. What is a lathe?
2. Where is an engine lathe used?
3. Do engine lathes vary in size?
4. What are the most important parts of a lathe?
5. How many lathe centers are used for supporting a workpiece?

4. Знайдіть українські або російські еквіваленти.

Feed rod, lead screw, cutting tool, turret lathe, band wheel, dead center.

5. Випишіть речення, в яких іде мова про сталі, які проходять термообробку, про запасні деталі, механізм постачання, про високоефективний верстат.

6. Перекладіть речення.

1. The chuck is designed to fit on the heavy-duty spindle nose.
2. To ensure accurate sizing of the works the cross-slide is brought up to a dead stop by the cam plate.
3. The oil pump to be mounted in the saddle draws oil-from a pump to lubricate the lead-screw.
4. The tailstock center is to be adjusted for alignment or misalignment with respect to the spindle center.
5. A set of change wheels enables all standard thread pitches to be cut.
6. The size of the center hob must he suitably proportioned to the size of cut to be taken.
7. Any working speed can be obtained by merely turning a dial that regulates the hydraulic motor.
8. The method of cutting threads permits the tool to have some side rake, and results in cleaner cutting.
9. The spindle is usually hollow its full length to allow long bars to be put completely through it.
10. It is difficult to adjust the tailed center.

7. Перепишіть речения, підкресліть інфінітивні звороти, перекладіть.

1. Tools for stamping and casting are known to be used in many plants.
2. We know the carriage to be supported on the lathe bed ways.
3. The aircraft industry seems to have been one of the first to apply computer control to machine tools.
4. Manufacturers are said to have produced attachments which can be employed on a lathe.
5. Variable-speed motors are likely to be frequently used.

Варіант № 5

1. Прочитайте та перекладіть текст усно.

Lathes

What is a lathe? A lathe may be briefly defined as a power-driven machine-tool used for producing a variety of shapes by cutting away the excess metal. The basic function of the lathe ,as well as of any kind of machine-tool, is of two fold nature: 1) to hold and control the metal being machined and 2) to support and control the cutting tool which receives the metal. The range and variety of lathes are very great, there is a description of the most common type.

The lathe is a machine-tool in which the work (usually cylindrical or round) is held so that it can be rotated about an axis, while the cutting-tool is traversed past the work from one end to the other, thereby forming it to the desired shape.

The lathe consists essentially of the following parts: bed, headstock, tailstock and saddle. The bed is a main part of a lathe and usually consists of a good quality grey iron casting of rigid design to prevent bending and twisting , it is bolted to a heavy base which houses the driving motor and the electric switch gear. The headstock is fixed to the bed and carries the bearings in which the spindle rotates. These bearings are automatically lubricated by a mechanical pump and can work under extreme conditions of low speeds for taking heavy cuts, and high speeds for taking light cuts.The speeds are obtained partly from the driving motor and partly by gears.

A recent design of lathe uses a variable-speed hydraulic motor as a source of power. The motor is belted to the head by means of V-belts. The hydraulic motor has a speed variation from zero to maximum speed. Any working speed can be obtained by turning a dial that regulates the hydraulic motor.

The headstock contains the spindle which is the part of the machine to which power is applied to rotate the work. The spindle is supported at both ends and sometimes in the middle by bearings.

Ball bearings are used in many of modern lathes because of their load-carrying capacities and because they consume less power.

2. Перепишіть абзаци 1, 5, 6-й та перекладіть їх.

3. Дайте відповіді на запитання.

1. What is a lathe?
2. Is a machine-tool a power-driven machine?
3. What is a headstock fixed to?
4. Are bearings automatically lubricated?
5. Where are ball bearings used?

4. Перекладіть такі словосполучення.

Machine-tool, cutting tool, grey iron casting, driving motor, electric switch gear, load-carrying capacity.

5. Знайдіть абзаци, в яких іде мова про основну функцію токарних верстатів, про мастило для підшипників, про сучасні конструкції токарних верстатів, про шарикопідшипники.

6. Визначте функцію інфінітива у реченнях, перекладіть речения.

1. The spindle centers have 60° conical points to fit center holes in the work.
2. It is necessary to have separate sets of jaws for inside and outside clamping.
3. To relieve the strain of the cutting tools an arrangement of angular feed should be fitted.
4. The motor may be of 9,12 or 15 h.p. according to the number of workpieces to be operated upon.
5. The cam plate is to be set in correct relation with the tools.
6. The cross slide enables the tool to suit the diameter of the workpiece.
7. The diameter of a bar must be equal to that of the hole in the work to be supported on it.
8. The tool may be adjusted for height.
9. The engine lathe has a gap which permits a workpiece to be handled.
10. The taper attachment enables more accurate work to be done.

7. Перепишіть речения, підкресліть інфінітивні звороти, перекладіть речення.

1. The engine lathe is known to be the most important machine-tool in use today.
2. We know the lathe to be a tool for machining surfaces.
3. The lathe seems to have been one of the first machines invented by man.
4. Engine lathes are said to differ more in design of the headstock than in that of any other part of their mechanism.
5. The automatic control of an engine lathe is likely to be used.

Навчальне видання

МЕТОДИЧНІ ВКАЗІВКИ
ДО ВИКОНАННЯ КОНТРОЛЬНИХ
ЗАВДАНЬ № 1
З АНГЛІЙСЬКОЇ МОВИ
для студентів 1-го курсу
заочної форми навчання

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