**Перечень заданий (для проведения промежуточной аттестации):**

**Задание №1**

**Прочитайте и переведите текст**

A programmer, or a computer programmer, is a person who writes programs to work on a computer. Computer programs are detailed instructions that computers must follow to do their functions. A programmer can be a specialist in one area of computer programming or a generalist who writes codes for many kinds of programs. Programmers also make, design, and test logical structures for solving problems by a computer. Many technical innovations in programming – modern computing technologies and new languages and programming tools - have changed the role of a programmer and enriched much of the programming work today. British mathematician Ada Lovelace (who was the famous British poet Lord Byron’s daughter) was the first to write a program for a computing machine. The machine was Charles Babbage's Analytical Engine, and Ada wrote and published an algorithm to make the calculations of Bernoulli numbers in October 1842. Unfortunately, her work never ran because Babbage's machine was never finished in her time. The first person to successfully run a program on a computer was a computer scientist Konrad Zuse, who succeeded in it in 1941.The American ENIAC (*Electronic Numerical Integrator and Computer)* programming team, consisting of Kay McNulty, Betty Jennings, Betty Snyder, Marlyn Wescoff, Fran Bilas and Ruth Lichterman were the first regularly working programmers. International Programmers' Day is celebrated annually on the 7th of January. In Russia starting from the year of 2009 a professional annual holiday known as Programmers' Day is celebrated on the 13th of September (the 12th of September in leap years).

**Задание №2Переведите слова**

1. Работа программиста – сложная, но интересная, она подходит для нас.

2. Мы выбрали её из многих других профессий и надеемся стать хорошими специалистами.

3. Хотя некоторые люди думают, что в сфере компьютеров уже больше нечего открывать, мы знаем, что наши открытия ещё впереди.

**Задание №3**

**Ответьте на вопросы**

1. Who is a programmer?

2. Who was the first programmer in the history of computing? Prove your opinion.

3. When is International Programmers’ Day celebrated?

4. Why is Programmers’ Day in Russia celebrated on the other date?

**Вариант№2**

**Задание №1 Прочитайте и переведите текст**

**FROM THE HISTORY OF COMPUTERS**

One of the earliest known computational devices, the abacus was developed. This is a mechanical device composed of a slab (плита) ( a bax in Greek) with pebbles ( камушки из гальки) (calculi in Greek) strung on wires. The position of the pebbles on each wire determines the value of digit. The abacus can be used to add, subtract, multiply and divide.In 1812 Charles Babbage, a Professor of Mathematics at Cambridge University, invented the first calculating machine. He decided to build a device which he called an analytical engine. He designed the first programmable computer. It was able to perform only one command. In 1941 in the United States International Business Machines (IBM) built a machine called Mark 1 to perform calculations for the Manhattan Project, which led towards the development of the atomic bomb. It was a relay computer (релейный). Relays are electromechanical devices which operate by means of electromagnets (электромагниты) and springs (пружины ). They were still slow and very noisy. First generation computers were extremely large and had poor reliability. They used vacuum tubes to control internal operations and required a lot of floor space. These computers could perform thousands of calculations per second. They were much faster than earlier mechanical machines. But they were very slow compared to today's computers. Punched cards were used to enter data into the computer. Card reader was used to translate them into machine language for the computer. The machine language information was often stored on magnetic drums. A splendid example of these first generation computers is ENIAC ( Electronic Numerical Integrator and Calculator). It was over 90 tons. Its 18 thousand vacuum tubes demanded 140 Kilowatts of electrical power. It is enough to supply a block of buildings of respectable size. In 1948 the transistor came into existence.

**Задание №2Переведите словосочетания**

Mechanical, command, design, atomic bomb, electromagnets, major, data, packaged transistor, accelerating, circuit, relay, technology, monitoring, optical filter, vacuum tube, techniques, microminiaturization, microprocessor, artificial intelligence.

**Задание № 3 Ответьте на вопросы**

1. What was the earliest known computing device?
2. What calculating machine was invented by Charles Babbage?
3. What computer did IBM make in 1942?
4. What computer did IBM make in 1942?

**Вариант№3**

**Задание №1**

**Прочитайте и переведите текст**

**FROM THE HISTORY OF COMPUTERS**

The second generation of computers was developed. They were smaller and faster. The reason for this extra speed was the use of transistors instead of vacuum tube. The transistor switches flows of electricity as fast as vacuum tubes used in computers.

The third generation computers could do a million calculations a second. The integrated circuit (IС) constituted another major step in the growth of computer technology. In the vacuum tubes and relay stages, additional discrete components such as resistors, inductors and capacitors were required in order to make the whole system work. These components were generally each about the same size as packaged transistors. Integrated circuit technology permitted the elimination of some of these components and "integration" of most of the others on the same chip of semiconductor that contains the transistor. Thus the basic logic element is the switch or "flip-flop" ("щелчок-шлепок") could be packaged into a single small unit. The chip was a crucial development (решающим шагом) in the accelerating pace of computer technology.

The fourth-generation computers are based on ICs greatly reduced in size due to microminiaturization which means that the circuits are much smaller than before. As many as 1000 tiny circuits fit on to a single chip. The most recent mainframe computers based on very large scale integration are becoming available in the mid- 1980' s. A major advance in the development of computer technology was the creation of microprocessor and microcomputers. The tiny computing devices are able to control complex operations from the control and

monitoring operation to playing chess. The fifth-generation computers is based on VLSI (Very Large Scale Integration) and SLSI (Super) technologies, optical fibers, videodisks and

artificial intelligence (искусственный интеллект) techniques are incorporated into them.

**Задание №2. Переведите предложения**

1. Мировое научное сообщество признаёт достижения Ады Лавлейс и

считает её первым программистом.

1. Уже в 17 веке были первые попытки создания электронных машин; это, например, счётные машины Лейбница и Паскаля.
2. Считается, что коллегой Конрада Цусе, помогавшим ему с созданием Зед -1был Гельмут Шрейер.

**Задание №3 Ответьте на вопросы**

1. What were the second-generation computers like, and how did they differ from the first-generation computers?
2. How many calculations per second could make the computers of the third generation?
3. Why has the integrated circuit (IC) become another important step in the development of computer technology?
4. What computers became available in the mid-1980s?

**Вариант№4**

**Задание №1 Прочитайте и переведите текст**

**The Internet**

The Internet is a magnificent global network with millions and millions of computers and people connected to one another where each day people worldwide exchange an immeasurable amount of information, electronic mail, news, resources and, more important, ideas.It has grown at a surprising rate. Almost everyone has heard about it and an increasing number of people use it regularly. With a few touches at a keyboard a person can get access to materials in almost everywhere. One can have access to full-text newspapers, magazines, , reference works, and even books. The Web is one of the best resources for up-to-date information. It is a hypertext-based system by which you can navigate through the Internet. Hypertext is the text that contains links to other documents. A special program known as «browser» can help you find news, pictures, virtual museums, electronic magazines, etc. and print Web pages. You can also click on keywords or buttons that take you to other pages or other Websites. This is possible because browsers understand hypertext markup language or code, a set commands to indicate how a Web page is formatted and displayed. Internet Video conferencing programmers enable users to talk to and see each other, exchange textual and graphical information, and collaborate. The next generation of Internet-enabled televisions will incorporate a smart-card for home shopping, banking and other interactive services. Internet-enabled TV means a TV set used as an Internet device. The Internet is a good example of a wide area network (WAN). Modern telecommunication systems use fiber-optic cables because they offer considerable advantages. Networks on different continents can also be connected via satellites. Computers are connected by means of a modem to ordinary telephone lines or Fiber-optic cables, which are linked to a dish aerial. Communication satellites receive and send signals on a transcontinental scale.

**Задание №2 Переведите словосочетания**

1. Internet is a …….

2. The function of the Internet is ……..

3. The Internet offers the following services …….

4. An Internet-enabled TV set is ………..

5. WAN is ……….

6. Networks are connected with each other ………

**Задание №3 Ответьте на вопросы**

1. What is the Internet?
2. What are the advantages of the Internet?
3. What is a browser?
4. What will the next generation of TVs include?

**Вариант№5**

**Задание №1 Прочитайте и переведите текст**

**Java**

Java was developed by James Gosling, in 1990 at Sun Microsystems. Java is one of the most used programming languages in the world, which is reason enough to want to learn it if you’re truly considering pursuing a career in programming. One of the things that make Java so great is that it works on a very wide range of platforms. There is always something that can be done with Java. Java further adds to the capabilities of C++ language. It is often said that Java owes a lot to C and C++ in terms of features and capabilities. The special thing about Java is that this is the first purely object oriented programming language. Java was developed on the principle of WORA i.e. “Write Once Run Anywhere”. This feature adds to the portability of Java. You just need to compile Java Source code once and then on any machine where JVM (Java Virtual Machine is installed), you can run that code irrespective of the underlying operating system and hardware. Java language is used to develop enterprise level application and video games; it can be employed to develop web based applications when used with JSP (Java Server Pages). Java has huge job market with attractive incentives. This is a must learn language for every programmer. Java has the advantage of a long history of usage. There are lots of "boilerplate" examples, it's been taught for decades, and it's widely used for many purposes (including Android app development), so it's a very practical language to learn.. Developing a deep understanding of Java takes a lot of time and strenuous effort, as it requires deep knowledge of programming and how it works on a highly nuanced level. Coding in Java isn’t just following steps until you get the project you want to work; it’s knowing how and why the project works because of a complex fundamental knowledge. If a career in programming sounds attractive, just know that Java is going to eventually need to be learned, so why not sooner than later? In the end you will have developed a programmer’s mind and will be ready for any obstacle.

**Задание №2**

Переведите словосочетания

language level application

attractive incentives the portability

machine-level control the file system

strenuous effort to manipulate the most important computer parts

**Задание №3**

**Ответьте на вопросы**

1. Who developed Java and when?
2. What are the advantages of Java?
3. What is the principle of Java development?
4. Why Java is a must-learn for every programmer.

**Вариант№6**

**Задание №1 Прочитайте и переведите текст**

**Python**

Python is another high-level programming language and is often considered on the easiest language to learn, owing to its simplicity, readability and straight forward syntax. Python was developed by *Guido Van Rossum* in 1991. Python wasn’t used that widely in the past; however, the language has seen great popularity in the recent years owing to Google’s investment in the

language in the past 10 years. Currently, some highly famous and robust sites are operating in Python including *pinterest.com*, *instagram.com*, and *rdio.com*. Like, PHP, Python also has associated web frameworks which make it more convenient to develop web based applications in python. Many people recommend Python as the best beginner language because of its simplicity yet great capabilities. The code is easy to read and enforces good programming style, without being too strict about syntax (things like remembering to add a semicolon at the end of each line). One of the truly greatest perks of working with Python is that it’s completely open-sourced and free. If you have access to a computer, you can feasibly learn Python. What’s even better is that it has a great online community that offers scores of tutorials and other learning tools. The program is straight forward enough that there aren’t many variable solutions to mistakes, so troubleshooting usually involves just a quick Google search for a helpful answer. Python may not teach the fundamentals the way C or Java do, but it will give you the satisfaction of actually getting work accomplished, which in the long run may be what keeps a potentially great programmer from giving up.

**Задание №2**

**Переведите словосочетания**

high-level programming language great capabilities.

good programming style greatest perks of working

make it more convenient to develop web many variable solutions

to write a simple script some highly famous and robust sites

**Задание №3**

**Ответьте на вопросы**

1. What is Python?
2. Why is it often considered the easiest language to learn?
3. Who developed Python and when ?
4. When did Python become very popular?
5. Which sites work in Python?
6. What are the advantages of Python?

**Вариант№7**

**Задание №1 Прочитайте и переведите текст**

**Where is Wi-Fi heading?**

Wi-Fi is the name of a [wireless](https://www.webopedia.com/TERM/W/wireless.html) networking technology that uses radio waves to provide wireless high-speed [Internet](https://www.webopedia.com/TERM/I/Internet.html) and [network](https://www.webopedia.com/TERM/N/network.html) connections. A common misconception is that the term Wi-Fi is short for "wireless fidelity," however this is not the case. Wi-Fi networks have no physical wired connection between sender and receiver by using radio frequency ([RF](https://www.webopedia.com/TERM/R/RF.html)) technology -- a frequency within the electromagnetic spectrum associated with radio wave propagation. When an RF current is supplied to an antenna, an electromagnetic field is created that then is able to propagate through space. The [Wi-Fi Alliance](https://www.webopedia.com/TERM/W/Wi_Fi_Alliance.html), the organization that owns the Wi-Fi registered trademark term specifically defines Wi-Fi as any "wireless local area network ([*WLAN*](https://www.webopedia.com/TERM/W/WLAN.html)) products that are based on the Institute of Electrical and Electronics Engineers' ([*IEEE*](https://www.webopedia.com/TERM/I/IEEE.html)) 802.11 standards." Initially, Wi-Fi was used in place of only the 2.4GHz [802.11b](https://www.webopedia.com/TERM/8/802_11.html) standard, however the [Wi-Fi Alliance](https://www.webopedia.com/TERM/W/Wi_Fi_Alliance.html) has expanded the generic use of the Wi-Fi term to include any type of network or [WLAN](https://www.webopedia.com/TERM/W/WLAN.html) product based on any of the [802.11 standards](https://www.webopedia.com/TERM/8/802_11.html), including [802.11b](https://www.webopedia.com/TERM/8/802_11.html), [802.11a](https://www.webopedia.com/TERM/8/802_11.html), dual-band and so on, in an attempt to stop confusion about wireless LAN [interoperability](https://www.webopedia.com/TERM/I/interoperability.html). Wi-Fi  is supported by many applications and [devices](https://www.webopedia.com/TERM/D/device.html) including [video game consoles](https://www.webopedia.com/TERM/C/console_game.html), home [networks](https://www.webopedia.com/TERM/N/network.html), [PDAs](https://www.webopedia.com/TERM/P/PDA.html), [mobile phones](https://www.webopedia.com/TERM/M/mobile_phone.html), major [operating systems](https://www.webopedia.com/TERM/O/operating_system.html), and other types of [consumer electronics](https://www.webopedia.com/TERM/C/consumer_electronics.html).  Any products that are tested and approved as "Wi-Fi Certified" (a registered trademark) by the [Wi-Fi Alliance](https://www.webopedia.com/TERM/W/Wi_Fi_Alliance.html) are certified as [interoperable](https://www.webopedia.com/TERM/I/interoperability.html) with each other, even if they are from different manufacturers. For example, a user with a Wi-Fi Certified product can use any brand of [access point](https://www.webopedia.com/TERM/A/AP.html) with any other brand of client hardware that also is also "Wi-Fi Certified". Wi-Fi has become very popular very quickly, to the point that in certain sectors of the economy it is almost a prerequisite for doing business. Some hotels would probably lose custom if they didn't offer Wi-Fi to their guests, who expect to be able to log on before they nod off. Wi-Fi less coffee shops might be bypassed by laptop-toting latte drinkers wanting to connect while they caffeinate. The number of uses to which Waif could be put is almost limitless. In the home, caffeinate such as the refrigerator, television, lighting system, microwave and stereo equipment could all be linked and regulated by Wiki. The technology also has exciting possibilities in environmental science (Box 2: Remote sensors and their applications).

**Задание №2**

**Переведите словосочетания**

A [wireless](https://www.webopedia.com/TERM/W/wireless.html) networking technology, high-speed [Internet](https://www.webopedia.com/TERM/I/Internet.html) and [network](https://www.webopedia.com/TERM/N/network.html) connections, sender and receiver, [interoperability](https://www.webopedia.com/TERM/I/interoperability.html), to be supported by many applications and [devices](https://www.webopedia.com/TERM/D/device.html),  different manufacturers, [interoperable](https://www.webopedia.com/TERM/I/interoperability.html), a registered trademark, can use any brand of [access point](https://www.webopedia.com/TERM/A/AP.html) with any other brand of client hardware, has exciting possibilities

**Задание №3**

**Ответьте на вопросы**

1. [What is the Wi-Fi Alliance?](https://www.webopedia.com/TERM/W/Wi_Fi_Alliance.html)

2. [What is wireless?](https://www.webopedia.com/TERM/W/wireless.html)

3. [What is Wireless Lan (WLAN)?](https://www.webopedia.com/TERM/W/WLAN.html)

4. [What is 802.11?](https://www.webopedia.com/TERM/8/802_11.html)

5. [What is Wi-Fi enabled?](https://www.webopedia.com/TERM/W/Wi_Fi_enabled.html)

**Вариант№8**

**Задание №1 Прочитайте и переведите текст**

**How does a computer virus work?**

Computer viruses, unlike biological viruses, are created by people. People write code that contains a computer virus, then test it to make sure that it works, and attach some form of action to the virus. That action is whatever the virus will do once it lands on a computer. Attaching this action is when the virus creator either makes the virus come up with a happy face on someone’s computer or erase their entire hard drive. There are a few reasons why people write such destructive viral codes. One is simply because they know how. And when they find a security loophole in a computer, they want to take advantage of it before someone else does. Others do it

just for the thrill, just like others draw graffiti or break into cars simply for a thrill. And of course, there’s always bragging rights that go along with creating a particularly intricate and complicated virus that’s hard to crack. However, because government officials are starting to crack down on these virus creators that cause so much damage, those bragging rights might become a thing of the past! There are two phases in how a computer virus works. The first phase is the infection phase. Once the user runs the infected entity, the virus will load into memory. It then scans for other programs and attempt to spread and infect them as well. It does this by modifying the program to add its code. Depending on its complexity, the computer virus might also attempt to search for, and infect, PCs linked to the infected computer, throughout

the network. After the replication, the virus launches the real program, so the user has no knowledge of the infection. If this were the only thing a computer virus can do, nobody would hate them so much. However, now comes the dangerous phase. Most viruses have an attack phase, which causes the damage. There are viruses know to disable antivirus tools to make sure they are free to do whatever they were programmed to do. In the attack phase, the virus can do virtually anything from printing a message on the screen to a total erase of the user’s hard disk.

**Задание №2**

**Переведите словосочетания**

2 phases of a computer virus work, the reasons why people write destructive viral codes, an attack phase of a virus; resemblance of a computer virus to a biological virus, general ways of a computer virus work, the dangerous phase, to disable antivirus tools, printing a message , load into memory, it lands on a computer

**Задание №3**

**Ответьте на вопросы**

1. What is the difference between a biological virus and a computer virus?
2. What are the reasons for creating viruses?
3. What are the two phases of a computer virus work?
4. What is done during the attack phase?

**Вариант№9**

**Задание №1 Прочитайте и переведите текст**

History of Laptops

Laptops had gained popularity toward the end of the 1980s among business people. The NEC Ultralite, released in 1989, is considered by some as the first notebook computer as it contained a 2 MB RAM drive and was compact. The Compaq LTE series computers, released in 1989, were the first notebook computers with standard hard drives and resolution screens. The Mac Portable, released in 1989, was Apple's first portable Macintosh computer. Few PC laptops at the time were as fast or powerful as these laptops. The computers were powered by internal lead acid gel/cell batteries, similar to batteries in cars, which were able to run from 6-12 hours. Data was stored on 40 MB SCSI hard drives and was able to spin down and sleep to conserve energy. The computer was not successful due to its 16 pound weight and was had limited mobility as a result. The PowerBook series was introduced in 1991 by Apple computer and was a significant improvement to its first mobile computer. The PowerBook's introduction saw many innovative designs that soon become the standard for future laptop design. Innovations in design included ergonomic improvements like placing the keyboard at the back of the machine to allow room for a palm rest and a trackball for navigation. A few years later, PowerBooks introduced the first 256 color displays, true touchpad, and first built-in Ethernet networking port. Although, the trend of designing lighter and smaller laptops continues, there are limitations and constraints such as a minimum screen size, which prevents laptops from being too small and creates a need to significantly reduce features or completely eliminate features with ultra light laptops. Aware of this trade-off and people's different needs, computer designers have created laptops to cater to people's specific computer needs and size and weight desires. Laptop users who desire an ultra thin and lightweight laptop may easily purchase one as well, but at the expense of computing power and built in accessories, as these machines tend to have the bare essentials; long battery life but low end processors and sometimes do not have a built-in optical drive. Average users may purchase laptops that have an even compromise between size, weight (6 pounds on average) and computing power.

**Задание №2**

**Переведите словосочетания**

link

clamshell

internal

portability

significant

introduce

improvement

availability

store

interconnectivity

bulky

inconvenience

constraints

wireless

cluster

customer

collaborationprovide

achieve

**Задание №3**

**Ответьте на вопросы**

1. When did laptops become popular?
2. Which laptop is considered the first?
3. What are the disadvantages and advantages of the first laptop
4. Which laptops were released later?
5. Which laptops do users need?

**Вариант№10**

**Задание №1**

**Прочитайте и переведите текст**

**Size & Weight**

The size and weight of laptops have significantly decreased over time. As one may have noticed from our visual history of laptops, the earliest laptops were large and bulky, weighing an average of 20 pounds. Some of them were so large and bulky, that they were not really mobile. In the early stages of laptop design, laptops were the size of large brief cases and were designed to be carried as such. Many were also designed to be stowed away under airplane seats for travel. These early laptops were known as "luggables" because of their suitcase like design. Some early laptops were designed like a calculator and were very portable. The Kyocera Kyotronic 85, a laptop that has a similar design to a calculator, was very popular among professionals because of its compact size and lightweight, two features that contributed greatly to its mobility. Some early laptops, like the GRiD laptop, had the clamshell design from day one and were more portable and light than "luggables". The clamshell design became a standard after a while, because it allowed designers to create lighter and smaller laptops than the "luggable" design. In general, laptops have evolved from suitcase-sized computers to compact machines, small enough to fit in one's suitcase or backpack with minor or little inconvenience to the user. Although, the trend of designing lighter and smaller laptops continues, there are limitations and constraints such as a minimum screen size, which prevents laptops from being too small and creates a need to significantly reduce features or completely eliminate features with ultra light laptops. Aware of this trade-off and people's different needs, computer designers have created laptops to cater to people's specific computer needs and size and weight desires. For example, laptop users who desire a desktop replacement laptop are able to easily purchase one, but at the expense of size and weight, as these fully equipped and powerful machines tend to be bigger and heavier than average laptops. Laptop users who desire an ultra thin and lightweight laptop may easily purchase one as well, but at the expense of computing power and built in accessories, as these machines tend to have the bare essentials; long battery life but low end processors and sometimes do not have a built-in optical drive. Average users may purchase laptops that have an even compromise between size, weight (6 pounds on average) and computing power.

**Задание №2**

**Переведите словосочетания**

a portable computer

a direct access

a matrix screen

data was stored

develop accessible

a limited mobility

an internal modem

a powerful expansion cards

computers were equipped

unplug

charge

capacity

 drawback

shelf-life

efficiency

generation

recharging

liquid

powering

**Задание №3**

**Ответьте на вопросы**

1. What were the first laptops?
2. What were the first laptops designed for?
3. What do designers consider when creating laptops?
4. Which laptops do users need?