МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ РОССИЙСКОЙ ФЕДЕРАЦИИ

федеральное государственное бюджетное образовательное учреждение высшего образования «КУЗБАССКИЙ ГОСУДАРСТВЕННЫЙ ТЕХНИЧЕСКИЙ УНИВЕРСИТЕТ ИМЕНИ Т.Ф.ГОРБАЧЕВА» Филиал КузГТУ в г. Белово



Фонд оценочных средств по дисциплине

Иностранный язык в профессиональной деятельности

Специальность «09.02.07 Информационные системы и программирование»

Присваиваемая квалификация "Специалист по информационным системам"

Протокол № 11 от « 22 » 06 2021 г.

1. Общие положения

Результатом освоения дисциплины «Иностранный язык в профессиональной деятельности» является овладение обучающимися общими компетенциями, формирующихся в процессе освоения программы подготовки специалистов среднего звена по специальности СПО <u>«09.02.07</u> Информационные системы и программирование».

2. Контрольные задания или иные материалы

2.1 Оценочные средства при текущем контроле

Текущий контроль заключается в устном или письменном опросе по темам дисциплины, проверке практических работ, тестировании.

Материалы текущего контроля, которые состоят из письменных заданий и устных опросов, содержатся в учебном электронном издании «Методические указания к практическим занятиям и самостоятельной работе», утвержденном на заседании ЦМК.

Текущий контроль по дисциплине составлен в соответствии с рабочей программой.

Критерии оценивания ответов на вопросы

- 90–100 баллов правильный, полный ответ на поставленный вопрос; используемый словарный запас и грамматические структуры соответствуют поставленной вопросу, произношение слов без нарушений нормы;
- 80-89 баллов ответ недостаточно полный; допущены некоторые неточности в теоретических и практических вопросах темы, используемый словарный запас и грамматические структуры соответствуют поставленной вопросу, произношение слов без нарушений нормы;
- 60-79 баллов ответ поверхностный; слабое владение научными категориями; имеются лексические и грамматические ошибки, не затрудняющие коммуникации. используемый словарный запас, грамматические структуры в основном соответствуют поставленной вопросу;
 - 0-59 баллов отказ от ответа; ответ неправильный.

Шкала оценивания

Количество баллов	0-59	60–79	80–89	90–100
Шкала оценивания	2	3	4	5

2.2 Оценочные средства при промежуточной аттестации

Формами промежуточной аттестации являются зачёт (4, 6 семестры) и дифференцированный зачёт (8 семестр).

Процедура проведения промежуточной аттестации по дисциплине в виде зачета:

Обучающиеся получают от преподавателя три задания.

При выполнении заданий обучающимся не разрешается использовать никакие источники информации, кроме словарей.

Выполнение каждого задания оценивается в баллах.

Процедура проведения промежуточной аттестации по дисциплине в виде дифференцированного зачёта:

Обучающиеся получают от преподавателя четыре задания.

При выполнении заданий обучающимся не разрешается использовать никакие источники информации, кроме словарей.

Выполнение каждого задания оценивается в баллах.

Содержание зачёта

- 1. Письменный перевод оригинального текста по специальности с использованием словаря (1000-1200 п.зн.). Время выполнения 45 минут.
- 2. Аннотация текста научно-популярного стиля (1800-2000 п.зн.). Время выполнения 20 минут.
- 3. Говорение. Сообщение по одной из изученных тем (15-20 фраз). Время подготовки 5 минут.

Содержание дифференцированного зачёта

- 1. Аудирование. Прослушивание аудиотекста на иностранном языке длительностью звучания 2 минуты (предъявление двукратное) и выполнение тестовых заданий по его содержанию, либо пересказ его содержания 8-10 предложений. Время выполнения 15 минут.
- 2. Письменный перевод оригинального текста по специальности с использованием словаря (1000-1200 п.зн.). Время выполнения 45 минут.
- 3. Аннотация текста по специальности (1800-2000 п.зн.). Время выполнения 20 минут.
- 4. Говорение. Сообщение по одной из изученных тем (15-20 фраз). Время подготовки 5 минут.

Аудирование оценивается в соответствии с критериями, представленными в таблице:

Баллы	Решение коммуникативной задачи	Организация высказывания	Языковое оформление высказывания
90-100	Содержание полно, точно и развернуто отражает все аспекты, указанные в задании; стилевое оформление	(письмо) логично и имеет завершенный характер; средства логической связи использованы правильно; имеются вступительная и заключительная фразы, соответствующие	грамматические структуры соответствуют поставленной задаче.

	принятые в языке нормы вежливости.		интонационные контуры, произношение слов без нарушений нормы.
80-89	задача выполнена. Содержание полно отражает аспекты, указанные в задании; стилевое оформление речи выбрано правильно с учетом цели высказывания и адресата; соблюдены принятые в языке	Высказывание (письмо) логично и имеет завершенный характер; средства логической связи использованы правильно; имеются вступительная и заключительная фразы, соответствующие теме.	Используемый словарный запас и грамматические структуры соответствуют поставленной задаче. Речь воспринимается легко, необоснованные
60-79	Коммуникативная задача выполнена. Содержание полно отражает аспекты, указанные в задании; стилевое оформление речи выбрано правильно с учетом цели высказывания и адресата; соблюдены принятые в языке нормы вежливости.	Высказывание (письмо) логично и имеет завершенный характер; средства логической связи использованы правильно.	coorsercrayor
45-59	Задание выполнено не полностью: содержание отражает не все аспекты, указанные в задании; встречаются нарушения стилевого оформления речи и / или принятых в языке	(письмо) не всегда погично; имеются недостатки / ошибки в использовании средств логической связи, их выбор ограничен.	грамматические ошибки, не затрудняющие коммуникации.

		(письмо) в основном	структуры,
		логично и имеет	фонетическое
		достаточно	оформление в
		завершенный	основном
			соответствуют
		отсутствует	поставленной задаче.
		вступительная и / или	
		заключительная	
		фраза.	
	Задание не выполнено:	Отсутствует логика в	
	содержание не	построении	
	отражает тех аспектов,	высказывания	
	которые указаны в	(письма).	
	задании, и / или не	Высказывание	Понимание текста
		(письмо) не имеет	затруднено из-за
25-44	гребуемому объему.	завершенного	множества лексико-
23-77	Речь воспринимается с	характера;	грамматических и
	трудом из-за большого		фонетических
	количества	заключение	ошибок.
	неестественных пауз,		
	неверной расстановки	_	
	ударений и ошибок в	-	
	произношении слов.	•	
			Понимание
			высказывания
			(письма) затруднено
		(письмо) нелогично,	из-за
0-24	Задание не выполнено.	вступительная и	многочисленных
			лексико-
			грамматических и
			фонетических
			ошибок.

Шкала оценивания для зачёта:

Количество баллов	0–59	60–100
Шкала оценивания	не зачтено	зачтено

Шкала оценивания для дифференцированного зачёта:

Количество баллов	0–59	60–79	80-89	90–100
Шкала оценивания	2	3	4	5

Перевод оценивается в соответствии с критериями, представленными в таблице:

	Решение		Языковое
Баллы	коммуникативной	Организация	оформление
	задачи	высказывания	высказывания
90-100	Коммуникативная задача выполнена полностью. Содержание полно, точно и развернуто отражает все аспекты, указанные в задании; стилевое оформление	имеет завершенный характер; средства логической связи использованы правильно; имеются вступительная и заключительная фразы, соответствующие	Используемый словарный запас и грамматические структуры соответствуют поставленной задаче. Речь воспринимается легко, необоснованные
80-89	задача выполнена. Содержание полно отражает аспекты, указанные в задании; стилевое оформление речи выбрано правильно с учетом цели высказывания и адресата; соблюдены принятые в языке	(письмо) логично и имеет завершенный характер; средства логической связи использованы правильно; имеются вступительная и заключительная	Используемый словарный запас и грамматические структуры соответствуют поставленной задаче. Речь воспринимается легко, необоснованные
60-79	задача выполнена. Содержание полно	(письмо) логично и имеет завершенный	Используемый словарный запас и

	1 -	использованы правильно.	соответствуют поставленной задаче. Речь воспринимается легко.
45-59	Задание выполнено не полностью: содержание отражает не все аспекты, указанные в задании; встречаются нарушения стилевого оформления речи и / или принятых в языке норм вежливости.	логично; имеются недостатки / ошибки в использовании средств логической связи, их выбор ограничен. Высказывание (письмо) в основном логично и имеет достаточно завершенный характер, но	ошибки, не затрудняющие коммуникации. Используемый запас, грамматические структуры, фонетическое оформление в основном соответствуют
25-44	Задание не выполнено: содержание не отражает тех аспектов, которые указаны в задании, и / или не соответствует гребуемому объему. Речь воспринимается с трудом из-за большого количества неестественных пауз, неверной расстановки	Отсутствует логика в построении высказывания (письма). Высказывание (письмо) не имеет завершенного характера; вступление и заключение отсутствуют; средства логической связи	Понимание текста затруднено из-за множества лексико-грамматических и фонетических ошибок.

Аннотация оценивается в соответствии с критериями, представленными в таблице:

Баллы	Решение коммуникативной задачи	Организация высказывания	Языковое оформление высказывания
90-100	полностью. Содержание полно, точно и развернуто отражает все аспекты, указанные в задании; стилевое оформление	Высказывание (письмо) логично и имеет завершенный характер; средства логической связи использованы правильно; имеются вступительная и заключительная фразы, соответствующие теме.	воспринимается легко, необоснованные
80-89	задача выполнена. Содержание полно отражает аспекты, указанные в задании; стилевое оформление речи выбрано правильно с учетом цели высказывания и адресата; соблюдены принятые в языке	Высказывание (письмо) логично и имеет завершенный характер; средства логической связи использованы правильно; имеются вступительная и заключительная фразы, соответствующие теме.	Используемый словарный запас и грамматические структуры соответствуют поставленной задаче. Речь воспринимается легко, необоснованные
60-79	задача выполнена. Содержание полно	Высказывание (письмо) логично и имеет завершенный	Используемый словарный запас и

		использованы правильно.	соответствуют поставленной задаче. Речь воспринимается легко.
45-59	аспекты, указанные в задании; встречаются нарушения стилевого оформления речи и / или принятых в языке норм вежливости.	логично; имеются недостатки / ошибки в использовании средств логической связи, их выбор ограничен. Высказывание (письмо) в основном логично и имеет достаточно завершенный характер, но	ошибки, не затрудняющие коммуникации. Используемый запас, грамматические структуры, фонетическое оформление в основном соответствуют
25-44	Задание не выполнено: содержание не отражает тех аспектов, которые указаны в задании, и / или не соответствует требуемому объему. Речь воспринимается с трудом из-за большого количества неестественных пауз, неверной расстановки ударений и опибок в	Отсутствует логика в построении высказывания (письма). Высказывание (письмо) не имеет завершенного характера; вступление и заключение отсутствуют; средства логической связи	Понимание текста затруднено из-за множества лексико-грамматических и фонетических ошибок.

Сообщения оцениваются в соответствии с критериями, представленными в таблице:

Баллы	Решение коммуникативной задачи	Организация высказывания	Языковое оформление высказывания
90-100	полностью. Содержание полно, точно и развернуто отражает все аспекты, указанные в задании; стилевое оформление речи выбрано	Высказывание (письмо) логично и имеет завершенный характер; средства погической связи использованы правильно; имеются вступительная и заключительная фразы, соответствующие теме.	воспринимается песко
80-89	задача выполнена. Содержание полно отражает аспекты, указанные в задании; стилевое оформление речи выбрано правильно с учетом цели высказывания и адресата; соблюдены принятые в языке	Высказывание (письмо) логично и имеет завершенный характер; средства логической связи использованы правильно; имеются вступительная и заключительная фразы, соответствующие теме.	Используемый словарный запас и грамматические структуры соответствуют
60-79	задача выполнена. Содержание полно отражает аспекты, указанные в задании;	Высказывание (письмо) логично и имеет завершенный характер; средства логической связи	Используемый словарный запас и

	речи выбрано правильно с учетом цели высказывания и адресата; соблюдены принятые в языке нормы вежливости.		Речь воспринимается легко.
45-59	задание выполнено не полностью: содержание отражает не все	недостатки / ошибки в использовании средств логической связи, их выбор ограничен. Высказывание (письмо) в основном логично и имеет достаточно завершенный характер, но отсутствует вступительная и / или	лексические и грамматические ошибки, не затрудняющие коммуникации. Используемый
25-44	отражает тех аспектов, которые указаны в задании, и / или не соответствует требуемому объему. Речь воспринимается с трудом из-за большого количества неестественных пауз, неверной расстановки ударений и ошибок в	построении высказывания (письма). Высказывание (письмо) не имеет завершенного характера; вступление и заключение отсутствуют; средства логической	Понимание текста затруднено из-за множества лексико- грамматических и фонетических ошибок.
0-24		Высказывание (письмо) нелогично, вступительная и	(письма) затруднено из-за

	лексико-	лексико-	
	грамматических	И	
	фонетических		
	ошибок.		

Шкала оценивания для зачёта

Количество баллов	0-59	60–100
Шкала оценивания	не зачтено	зачтено

Шкала оценивания для дифференцированного зачёта

Количество баллов	0-59	60–79	80–89	90–100
Шкала оценивания	2	3	4	5

Письменные задания

4 семестр

Вариант 1

Переведите письменно следующий текст с использованием словаря. Время выполнения — 45 минут. Прочитайте в слух абзац, который отмечен звёзлочками *** ... ***.

FROM THE HISTORY OF COMPUTER

DEVELOPMENT IN RUSSIA

As it is well-known, Russian scientists made great contribution into the development of computers. Russian mathematician P. Chebyshev who lived in the 19th century was interested in calculators. Among many other mechanisms invented by him there was an arithmometer designed in 1876. It was one of the most unique calculating machines of the time. At the beginning ofthe 20th century Academic A. Krylov constructed a mechanical integrator for solving differential equations.

***The first Soviet computer, a small-size computing machine (MESM) was tested in 1950 under Academician S. Lebedev. Next year it was put into operation. In a year MESM was followed by BESM, a large-size electronic computing machine, with 8,000 operations per second.

Serial production of computers in the USSR has been started since 1953. That year U. Basilevsky headed the design and manufacture of computer STRELA. 1958 witnessed the production of M-20, computers of the first generation under the guidance of S. Lebedev. The first generation of electron tube computers was followed by the second generation of foto transistor computers, using magnetic logic elements. ***

Starting with 1964 semiconductor computers — URAL, BESM-4 and M-220 were produced. Under Academician Glushkov small size computers MIR, MIR-2, and DNEPR were designed and tested at the Institute of Cybernetics.

Вариант 2

Переведите письменно следующий текст с использованием словаря. Время выполнения — 45 минут. Прочитайте в слух абзац, который отмечен звёздочками *** ... ***.

FUNCTIONAL UNITS OF DIGITAL COMPUTERS

As we know, all computer operations can be grouped into five functional categories. The method in which these five functional categories are related to one another represents the functional organization of a digital computer. By studying the functional organization, a broad view of the computer is received.

The five major functional units of a digital computer are:

- 1) Input to insert outside information into the machine;
- 2) Storage or memory to store information and make it available at the appropriate time;
- 3) Arithmetic-logical unit to perform the calculations;
- 4) Output to remove data from the machine to the outside world and
- 5) Control unit to cause all parts of a computer to act as a team.

A complete set of instructions and data are usually fed through the input equipment to the memory where they are stored. Each instruction is then fed to the control unit. The control unit interprets the instructions and issues commands to the other functional units to cause operations to be performed on the data. Arithmetic operations are performed in the arithmetic-logical unit, and the results are then fed back to the memory. Information may be fed from either the arithmetic unit or the memory through the output equipment to the outside world.

The five units of the computer must communicate with each other. They can do this by means of a machine language which uses a code composed of combinations of electric pulses. These pulse combinations are usually represented by *zeros* and *ones*, where the *one* may be a pulse and the *zero* a no pulse. Numbers are communicated between one unit and another by means of these one-zero or pulse — no pulse combinations. The input translates from our language into the pulse — no pulse combinations understandable to the computer.

Вариант 3

Переведите письменно следующий текст с использованием словаря. Время выполнения — 45 минут. Прочитайте в слух абзац, который отмечен звёздочками *** ... ***.

CENTRAL PROCESSING UNIT

It is well-known in computer science that the words "computer" and "processor" are used interchangeably. Speaking more precisely, "computer" refers to the central processing unit (CPU) together with an internal memory. The internal memory, control and processing components make up the heart of

the computer system. Manufactures design the CPU to control and carry out basic instructions for their particular computer.

The CPU coordinates all the activities of the various components of the computer. It determines which operations should be carried out and in what order. The CPU controls the operation of the entire system by issuing commands to other parts of the system and by acting on responses. When required, it reads information from the memory, interprets instructions, performs operations on the data according to the instructions, writes the results back into the memory, and moves information between memory levels or through the input-output ports.

In digital computers the CPU can be divided into two functional units called the control unit (CU) and the arithmetic-logic unit (ALU). These two units are made up of electronic circuits with millions of switches that can be in one of two states, either on or off.

The function of the CU within the central processor is to transmit coordinating control signals and commands.

The ALU, on the other hand, is that part of the computer in which the actual arithmetic operations, namely, addition, subtraction, multiplication, division, and exponentiation, called for in the instructions are performed.

6 семестр

Вариант 1

Переведите письменно следующий текст с использованием словаря. Время выполнения -45 минут. Прочитайте в слух абзац, который отмечен звёздочками *** ... ***.

MICROPROCESSOR - A BRAIN TO THE HARDWARE

The microprocessor forms the heart of a microcomputer. The first microprocessors were developed in 1971 as a branch of pocket calculator development.

As it is known, computer actually refers to a computing system including hardware and software. Processor refers to the processing circuits: control processing unit, memory, interrupt unit, clock and timing. Most processors also include computer software.

***Central processing unit — heart of the processor — consists of the register array, arithmetic and logic unit, control unito and bus control circuits. Microsoft ware may also include microinstruction manual, micro-assembler, etc

The very first microprocessors were fabricated using PMOS technology. "Holes" in the p-type material having a low mobility, those microprocessors were relatively slow devices. Later, improved technology permitted microprocessors to be constructed using n-type MOS and these microprocessors are almost as fast as normal minicomputers.***

Some microprocessors are now made using CMOS. The speed and logic density of CMOS are inferior to n-type MOS but the process does have some significant advantages. First of all, it has a low power consumption, power being consumed only when a logic element changes a state. Secondly, it can operate over a wide voltage range. As a result, electronics based on CMOS can operate successfully with "noisy" power supplies.

Вариант 2

Переведите письменно следующий текст с использованием словаря. Время выполнения — 45 минут. Прочитайте в слух абзац, который отмечен звёздочками *** ... ***.

INPUT-OUTPUT ENVIRONMENT

Data and instructions must enter the data processing system, and information must leave it. These operations are performed by input and output (I/O) units that link the computer to its external environment. The I/O environment may be human-related or human-independent. A remote banking terminal is an example of a human-related input environment, and a printer is an example of a device that produces output in a human-readable format. An example of a human-independent input environment is a device that measures traffic flow. A reel of magnetic tape upon which the collected data are stored in binary format is an example of a human-independent output.

Input-output interfaces. Data enter input units in forms that depend upon the particular device used. For example, data are entered from a keyboard in a manner similar to typing, and this differs from the way that data are entered by a bar-code scanner. However, regardless of the forms in which they receive their inputs, all input devices must provide a computer with data that are transformed into the binary codes that the primary memory of the computer is designed to accept. This transformation is accomplished by units called I/O interfaces.

Input interfaces are designed to match the unique physical or electrical characteristics of input devices to the requirements of the computer system. Input-output device speed. Input-output devices can be classified as high-speed, medium-speed, and low-speed. The devices are grouped according to their speed.

Вариант 3

Переведите письменно следующий текст с использованием словаря. Время выполнения — 45 минут. Прочитайте в слух абзац, который отмечен звёздочками *** ... ***.

PERSONAL COMPUTERS

***Personal computers are supposed to appear in the late 1970s. One of the first and most popular personal computers was the Apple II, introduced in 1977 by Apple Computer. During the late 1970s and early 1980s, new models and competitive operating systems seemed to appear daily. Then, in 1981, IBM entered the fray with its first personal computer, known as the IBM PC.

The IBM PC quickly became the personal computer of choice, and most other personal computer manufacturers fell by the wayside. One of the few companies to survive IBM's onslaught was Apple Computer, which is sure to remain a major player in the personal computer marketplace.***

What is a personal computer? How can this device be characterized?

- First, a personal computer being microprocessor-based, its central processing unit, called a microprocessor unit, or MPU, is concentrated on a single silicon chip.
- Second, a PC has a memory and word size that are smaller than those of minicomputers and large computers.
- Third, a personal computer uses smaller, less expensive, and less powerful input, output and storage components than do large computer systems. Most often, input is by means of a keyboard, soft-copy output being displayed on a cathode-ray tube screen. Hard-copy output is produced on a low-speed character printer.
- A PC employs floppy disks as the principal online and offline storage devices and also as input and output media.
- Finally, a PC is a general-purpose, stand-alone system that can begin to work when plugged in and be moved from place to place.

Устные задания

4 семестр

Вариант 1

Составьте аннотацию следующего текста. Время выполнения – 20 минут.

- 1. Skim the text for 10 minutes.
- 2. Make up summary of this text in English for 5-7 minutes.

Steven Paul Jobs (February 24, 1955 – October 5, 2011)

Steven Paul Jobs was an American business magnate and investor. He was the chairman, chief executive officer (CEO), and co-founder of <u>Apple Inc.</u>; chairman and majority shareholder of <u>Pixar</u>; a member of <u>The Walt Disney Company</u>'s board of directors following its acquisition of Pixar; and the founder, chairman, and CEO of <u>NeXT</u>. Jobs is widely recognized as a pioneer of the <u>microcomputer revolution</u> of the 1970s and 1980s, along with Apple co-founder <u>Steve Wozniak</u>.

Jobs was born in <u>San Francisco</u>, California, and put up for adoption. He was raised in the <u>San Francisco Bay Area</u>. He attended <u>Reed College</u> in 1972

before dropping out that same year, and <u>traveled through India</u> in 1974 seeking enlightenment and <u>studying Zen Buddhism</u>.

Jobs and Wozniak co-founded Apple in 1976 to sell Wozniak's <u>Apple I</u> personal computer. Together the duo gained fame and wealth a year later for the <u>Apple II</u>, one of the first highly successful mass-produced personal computers. Jobs saw the commercial potential of the <u>Xerox Alto</u> in 1979, which was <u>mouse-driven</u> and had a <u>graphical user interface</u> (GUI). This led to development of the unsuccessful <u>Apple Lisa</u> in 1983, followed by the breakthrough <u>Macintosh</u> in 1984, the first mass-produced computer with a GUI. The Macintosh introduced the <u>desktop publishing</u> industry in 1985 with the addition of the Apple <u>LaserWriter</u>, the first laser printer to feature vector graphics.

Jobs was forced out of Apple in 1985 after a long power struggle with the company's board and its then CEO <u>John Sculley</u>. That same year, Jobs took a few of Apple's members with him to found <u>NeXT</u>, a <u>computer platform</u> development company that specialized in computers for higher-education and business markets.

Apple merged with NeXT in 1997, and Jobs became CEO of his former company within a few months. He was largely responsible for helping revive Apple, which had been at the verge of bankruptcy. He worked closely with designer Jony Ive to develop a line of products that had larger cultural ramifications, beginning in 1997 with the "Think different" advertising campaign and leading to the iMac, iTunes, iTunes Store, Apple Store, iPod, iPhone, App Store, and the iPad. In 2001, the original Mac OS was replaced with a completely new Mac OS X, based on NeXT's NeXTSTEP platform, giving the OS a modern Unix-based foundation for the first time.

(taken from: https://en.wikipedia.org/wiki/Steve Jobs)

Вариант 2

Составьте аннотацию следующего текста. Время выполнения – 20 минут.

- 1. Skim the text for 10 minutes.
- 2. Make up summary of this text in English for 5-7 minutes.

THE COMPUTING ERA

Nobody knows who built the first computer. Some people say that humans were the first computers. Human computers got bored doing the same math over and over again. A cashier, for example, used to make change every day in her head or with a piece of paper. That took a lot of time and people made mistakes. So people made machines that did those same things over and over.

This part of computer history is called the "history of automated calculation." At the end of the Middle Ages people in Europe thought math and engineering were more important. In 1623 Wilhelm Schickard made a mechanical calculator. Other Europeans made more calculators after him. They

were not modern computers because they could only add, subtract, and multiply. Some people wanted to be able to tell their machine to do different things. For example, they wanted to tell the music box to play different music.

One of the first examples of this was built by Hero of Alexandria (10—70 A.D.). He built a mechanical theater, which performed a play lasting 10 minutes and was operated by a complex system of ropes and drums. These ropes and drums were the language of the machine — they told what the machine did and when. Some people think that this is the first programmable machine.

In 1801 Joseph Marie Jacquard used punched paper cards to tell his textile loom what kind of pattern to weave. He could use punch cards to tell the loom what to do, and he could change the punch cards, which means he could program the loom to weave the pattern he wanted. This means the loom was programmable. This part of computer history is called the "history of programmable machines."

Modern computers were made when Charles Babbage had a bright idea. He wanted to make a machine that could do all the boring parts of mathematics, (like the automated calculators) and could be told to do them different ways (like the programmable machines). Charles Babbage was the first to make a design of a fully programmable mechanical computer. He called it the "the analytical engine." Because Babbage did not have enough money and always changed his design when he had a better idea, he never built his analytical engine. As time went on, computers got more and more popular.

(taken from: http://zhat.ru/zhat_old/ images/stories/ UchebnMaterials/OOD/Minakova/Radovel.pdf)

Вариант 3

Составьте аннотацию следующего текста. Время выполнения – 20 минут.

- 1. Skim the text for 10 minutes.
- 2. Make up summary of this text in English for 5-7 minutes.

History of the Internet

The history of the Internet begins with the development of electronic computers in the 1950s. Initial concepts of <u>wide area networking</u> originated in several computer science laboratories in the United States, United Kingdom, and France. The U.S. Department of Defense awarded contracts as early as the 1960s, including for the development of the <u>ARPANET</u> project, directed by <u>Robert Taylor</u> and managed by <u>Lawrence Roberts</u>. The first message was sent over the ARPANET in 1969 from computer science Professor <u>Leonard Kleinrock</u>'s laboratory at <u>University of California</u>, <u>Los Angeles</u> to the second network node at Stanford Research Institute.

Packet switching networks such as the NPL network, ARPANET, Tymnet, Merit Network, CYCLADES, and Telenet, were developed in the late 1960s and early 1970s using a variety of communications protocols. Donald Davies first demonstrated packet switching in 1967 at the National Physics Laboratory (NPL) in the UK, which became a testbed for UK research for almost two decades. The ARPANET project led to the development of protocols for internetworking, in which multiple separate networks could be joined into a network of networks.

The Internet protocol suite was developed by Robert E. Kahn and Vint Cerf in the 1970s and became the standard networking protocol on the ARPANET, incorporating concepts from the French CYCLADES project directed by Louis Pouzin. In the early 1980s the NSF funded the establishment for national supercomputing centers at several universities, and provided interconnectivity in 1986 with the NSFNET project, which also created network access to the supercomputer sites in the United States from research and education organizations. Commercial Internet service providers (ISPs) began to emerge in the very late 1980s. The ARPANET was decommissioned in 1990. Limited private connections to parts of the Internet by officially commercial entities emerged in several American cities by late 1989 and 1990, and the NSFNET was decommissioned in 1995, removing the last restrictions on the use of the Internet to carry commercial traffic.

In the 1980s, research at CERN in Switzerland by British computer scientist <u>Tim Berners-Lee</u> resulted in the <u>World Wide Web</u>, linking hypertext documents into an information system, accessible from any node on the network. Since the mid-1990s, the Internet has had a revolutionary impact on culture, commerce, and technology. Today the Internet continues to grow, driven by ever greater amounts of online information, commerce, entertainment, and <u>social networking</u>. However, the future of the global internet may be shaped by regional differences in the world.

(taken from: https://en.wikipedia.org/wiki/History of the Internet)

6 семестр

Вариант 1

Составьте аннотацию следующего текста. Время выполнения – 20 минут.

- 1. Skim the text for 10 minutes.
- 2. Make up summary of this text in English for 5-7 minutes.

Yevgeny Valentinovich Kaspersky

Yevgeny Valentinovich Kaspersky was born 4 October 1965. He is a Russian <u>cyber security</u> expert and the CEO of <u>Kaspersky Lab</u>, an IT security company with 4,000 employees. He cofounded Kaspersky Lab in 1997 and

helped identify instances of government-sponsored <u>cyber war fare</u> as the head of research. He has been an advocate for an international treaty prohibiting cyber war fare.

Kaspersky graduated from <u>The Technical Faculty of the KGB Higher School</u> in 1987 with a degree in mathematical engineering and computer technology. His interest in IT security began when his work computer was infected with the <u>Cascade virus</u> in 1989 and he developed a program to remove it. Kaspersky helped grow Kaspersky Lab through security research and salesmanship. He became the CEO in 2007 and remains so as of 2018.

Kaspersky's interest in IT security began in 1989, when his PC was infected by the <u>Cascade virus</u>, while working for the <u>Ministry of Defense</u>. He studied how the virus workedand developed a program to remove it. Afterwards he continually found new viruses and developed software to remove them, as a hobby. Early on Kaspersky's anti-virus software had just 40 virus definitions and was distributed mostly to friends.

In 1991, Kaspersky was granted an early release from his military service and left the defense ministry to take a job at the Information Technology Center of a private company KAMI, in order to work on his antivirus product full-time. There, he and his colleagues improved the software and released it as a product called Antiviral Toolkit Pro in 1992. At first the software was purchased by about ten clients per month. It earned about \$100 per month, mostly from companies in Ukraine and Russia. Kaspersky's then-future wife Natalya Kaspersky became his coworker at KAMI.

In 1994, <u>Hamburg University</u> in Germany gave Kaspersky's software first place in a competitive analysis of antivirus software. This led to more business for Kaspersky from European and American companies. Kaspersky Lab was founded three years later by Kaspersky, his wife and Kaspersky's friend.

Kaspersky's company grew quickly in the late 1990s. From 1998 to 2000, its annual revenue grew 280 percent and by 2000 almost sixty percent of revenues were international. https://en.wikipedia.org/wiki/Eugene Kaspersky-cite_note-Weissman_2015-23 By 2000, it had a staff of 65 people, starting from 13 in 1997. The antivirus product was renamed to Kaspersky Antivirus in 2000, after an American company started using the product's original name, which wasn't trademarked.

(taken from: https://en.wikipedia.org/wiki/Eugene_Kaspersky)

Вариант 2

Составьте аннотацию следующего текста. Время выполнения – 20 минут.

- 1. Skim the text for 10 minutes.
- 2. Make up summary of this text in English for 5-7 minutes.

Mark Elliot Zuckerberg

Mark Elliot Zuckerberg was born May 14, 1984. He is an American <u>technology entrepreneur</u> and philanthropist. He is known for co-founding and leading <u>Facebook</u> as its chairman and <u>chief executive officer</u>.

Born in <u>White Plains</u>, <u>New York</u>, Zuckerberg attended <u>Harvard University</u>, where he launched Facebook from his dormitory room on February 4, 2004, with college roommates <u>Eduardo Saverin</u>, <u>Andrew McCollum</u>, <u>Dustin Moskovitz</u>, and <u>Chris Hughes</u>.

Since 2010, <u>Time</u> magazine has named Zuckerberg among the 100 wealthiest and most influential people in the world as a part of its <u>Person of the Year</u> award. In December 2016, Zuckerberg was ranked 10th on <u>Forbes list of The World's Most Powerful People</u>.

Zuckerberg began using computers and writing software in <u>middle school</u>. His father taught him <u>Atari BASIC Programming</u> in the 1990s, and later hired software developer David Newman to tutor him privately. Zuckerberg took a graduate course in the subject at <u>Mercy College</u> near his home while still in high school.

During Zuckerberg's high school years, he worked under the company name Intelligent Media Group to build a music player called the Synapse Media Player. The device used <u>machine learning</u> to learn the user's listening habits, which was posted to <u>Slashdot</u> and received a rating of 3 out of 5 from <u>PC</u> <u>Magazine</u>.

Vargas noted that by the time Zuckerberg began classes at <u>Harvard</u>, he had already achieved a "reputation as a programming prodigy". He studied <u>psychology</u> and <u>computer science</u> and belonged to <u>Alpha Epsilon Pi</u> and <u>Kirkland House</u>. In his <u>sophomore</u> year, he wrote a program that he called CourseMatch, which allowed users to make class selection decisions based on the choices of other students and also to help them form study groups. A short time later, he created a different program he initially called <u>Facemash</u> that let students select the best looking person from a choice of photos.

In January 2004, Zuckerberg began writing code for a new Web site. On February 4, 2004, Zuckerberg launched "The facebook", originally located at thefacebook.com.

Following the official launch of the Facebook social media platform, the three filed a lawsuit against Zuckerberg that resulted in a settlement. The agreed settlement was for 1.2 million Facebook shares.

(taken from: https://en.wikipedia.org/wiki/Mark Zuckerberg)

Вариант 3

Составьте аннотацию следующего текста. Время выполнения – 20 минут.

- 1. Skim the text for 10 minutes.
- 2. Make up summary of this text in English for 5-7 minutes.

Programming Languages

Programming has been with us for over 40 years but it wasn't born at the time as the first computers. When the first early computers were built, there were no programming languages. First machines were initially programmed by flipping toggle switches and changing cables. Needless to say, this was a slow, awkward process. People began quickly searching for a better, faster way to issue instructions to the computer.

The result was what we call Programming Languages. The programming languages fall into three general categories. They are comprised of ones and zeros, and are directly understood or executed by hardware. Electronic circuitry turns these 0s and 1s into the operations the computer performs.

Assembly Languages are powerful programming tools because they allow programmers a large amount of direct control over the hardware. Assembly languages are machine-specific, or machine-dependent. Assembly languages are still provided by most computer manufacturers – they can't be translated and used on another computer.

Assembly code for a Prime mini won't work on a Digital mini. Assembly code can't even be transferred between some machines built by the same manufacturer. For the most part, assembly languages are used by systems programmers to develop operating systems and their components.

As high-level languages are a method of writing programs using English like words as instructions, they allow users to write in a notation with which they are familiar, e.g., Fortran in mathematical notation, Cobol in English.

High-level programming languages combine several machine language instructions into one high-level instruction. Low-level languages required only a single letter or a short mnemonic a term, or a word that is easy to identify, such as ADD for addition. High-level language requires just a single statement.

A Statement is an expression of instruction in a programming language. For example, PRINT FILE, TXT is a statement. A statement translates into one or more instructions at the machine language level.

FORTRAN was created in 1954 by John Backus. And it was one of the first high-level languages.

Another high-level machine language is Cobol. Cobol was developed by the Conference on Data Systems Languages. Cobol was issued by the US Government Printing Office in 1960.

Algol was developed as an international language for the expression of the algorithms between individuals, as well as programming language. It was introduced in the early 1960s.

(taken from: https://studfiles.net/preview/5358809/page:5)

Темы сообщений к зачету

4 семестр

- 1. Introduction. About myself.
- 2. My friend.
- 3. My family.
- 4. My working day.
- 5. My home.
- 6. My home city.
- 7. Hobbies.
- 8. Travelling.

6 семестр

- 1. Introduction.
- 2. My family.
- 3. My working day.
- 4. Hobbies.
- 5. Travelling.
- 6. English in our life.
- 7. My university. KuzSTU.
- 8. Russia.
- 9. Great Britain.
- 10. Sports. Environment.
- 11.Technical progress.

Дифференцированный зачет проходит в четыре этапа

(8 семестр):

- 1) Аудирование. Прослушивание аудиотекста на иностранном языке длительностью звучания 2 минуты (предъявление двукратное) и выполнение тестовых заданий по его содержанию, либо пересказ его содержания 8-10 предложений. Время выполнения 15 минут.
- 2) Письменный перевод оригинального текста по специальности с использованием словаря (1000-1200 п.зн.). Время выполнения 45 минут.
- 3) Аннотация текста по специальности (1800-2000 п.зн.). Время выполнения 20 минут.
- 4) Говорение. Сообщение по одной из изученных тем (15-20 фраз). Время подготовки – 5 минут.

Задания для аудирования

Прослушайте текст (продолжительность звучания 2 мин.) два раза. Перескажите его содержание в 8-10 предложениях. Время подготовки — 15 минут.

Text for listening.

Oxbridge

Oxford and Cambridge are the two oldest and most prestigious universities in Britain. They are often called collectively Oxbridge to denote an elitarian education. Many Oxbridge students come from public schools. Oxbridge graduates often go on to become influential and powerful in British society.

The tutorial system is one of the ways in which Oxford and Cambridge differ from all the other English universities. Every student has a tutor. As soon as you come to Oxford one of the first things you do is to go and see your tutor. He, more or less, plans your work, suggests the books you should read and sets work for you to do.

Each week you go to him in his rooms, perhaps with two or three other students. He discusses with you the work that you have done, criticizes in detail your essay and sets you the next week's work.

The universities have over a hundred societies, debating clubs, political clubs of all colours - in fact, clubs for almost every activity under the sun. Both universities are independent.

Письменные задания (работа с текстом)

Вариант 1

Переведите письменно следующий текст с использованием словаря. Время выполнения -45 минут. Прочитайте в слух абзац, который отмечен звёздочками *** ... ***.

Computer

A computer is a device that can be instructed to carry out sequences of arithmetic or logical operations automatically via computer programming. Modern computers have the ability to follow generalized sets of operations, called programs. These programs enable computers to perform an extremely wide range of tasks.

Computers are used as control systems for a wide variety of industrial and consumer devices. This includes simple special purpose devices like microwave ovens and remote controls, factory devices such as industrial robots and computer-aided design, and also general purpose devices like personal computers and mobile devices such as smartphones.

Early computers were only conceived as calculating devices. Since ancient times, simple manual devices like the abacus aided people in doing calculations. Early in the Industrial Revolution, some mechanical devices were built to automate long tedious tasks, such as guiding patterns for looms. More sophisticated electrical machines did specialized analog calculations in the early 20th century. The first digital electronic calculating machines were developed during World War II. The speed, power, and versatility of computers have been

increasing dramatically ever since then. Conventionally, a modern computer consists of at least one processing element, typically a central processing unit (CPU), and some form of memory.

Вариант 2

Переведите письменно следующий текст с использованием словаря. Время выполнения — 45 минут. Прочитайте в слух абзац, который отмечен звёздочками *** ... ***.

History of computer science

Before the 1920s, *computers* (sometimes *computors*) were human clerks that performed computations. They were usually under the lead of a physicist. Many thousands of computers were employed in commerce, government, and research establishments. Most of these computers were women. Some performed astronomical calculations for calendars, others ballistic tables for the military.

***After the 1920s, the expression *computing machine* referred to any machine that performed the work of a human computer, especially those in accordance with effective methods of the <u>Church-Turing thesis</u>. The thesis states that a mathematical method is effective if it could be set out as a list of instructions able to be followed by a human clerk with paper and pencil, for as long as necessary, and without ingenuity or insight. ***

Machines that computed with continuous values became known as the *analog* kind. They used machinery that represented continuous numeric quantities, like the angle of a shaft rotation or difference in electrical potential.

Digital machinery, in contrast to analog, were able to render a state of a numeric value and store each individual digit. Digital machinery used difference engines or relays before the invention of faster memory devices.

The phrase *computing machine* gradually gave way, after the late 1940s, to just *computer* as the onset of electronic digital machinery became common. These computers were able to perform the calculations that were performed by the previous human clerks.

Since the values stored by digital machines were not bound to physical properties like analog devices, a logical computer, based on digital equipment, was able to do anything that could be described "purely mechanical." The theoretical <u>Turing Machine</u>, created by <u>Alan Turing</u>, is a hypothetical device theorized in order to study the properties of such hardware

Устные задания (работа с текстом) Вариант 1

Составьте аннотацию следующего текста. Время выполнения – 20 минут.

1. Skim the text for 10 minutes.

2. Make up summary of this text in English for 5-7 minutes.

Watch out – computers are getting friendly!

Are you the kind of person who thinks of computers as mysterious machines, hidden away behind closed doors? Are you unsure of what they really do, but suspect that you wouldn't understand anyway? Well, I'm afraid you're going to have to change your ideas because the age of the personal computer is here. According to recent advertisements, here are just some of the things that computers can do for us: keep records of our financial affairs, store recipes, do calculations, play games with us, teach us languages, create drawings and paintings, play and compose music.

How has the computer changed from a mysterious monster into a household pet?

Computers, as we know them today, were first developed during the Second World War. Then they were used to help break the codes used to send secret information. After that, they were used for doing calculations for the first atom Bomb tests.

Basically, computers do calculations – that's all. They can do calculation many sets of number in many different ways, very quickly. This is called number-crunching (компьютер для сложных или длинных расчётов) which numbers and how the computer crunches (грызть, щёлкать) them depends on the programme. This is a set of instruction specially written for each job the computer has to do. So, whether the computer is used to launch a nuclear attack, or to play a space game with you, will depend on its programme.

Let's look at the way computers do their job. In 1961, IBM proudly introduced the 360 Model 30 computer. This computer needed a 6 meter square air-conditioned room. Its CPU (central processing unit), the brain of the machine, was almost 2 meters square and had to be water cooled to prevent over-healing. It could do 33.000 additions a second when working at full speed. It cost \$150,000.

Compare this to IBM's latest personal computer first introduced in 1998. Its CPU is a silicon chip, smaller than your fingernail. It does 500,000 additions a second and costs about \$2.000.

In addition to the dramatic changes in size, speed and price, we now have machines which change, numbers into pictures, words and sounds. I would guess that the next big change will be when we get computers which respond to human language.

From: «Modern English International» by LorraineWeller, 2016

Вариант 2

Составьте аннотацию следующего текста. Время выполнения – 20 минут.

1. Skim the text for 10 minutes.

2. Make up summary of this text in English for 5-7 minutes.

Computer network

A computer network, or data network, is a <u>digital telecommunications</u> <u>network</u> which allows <u>nodes</u> to share resources. In computer networks, <u>computing devices exchange data</u> with each other using connections (<u>data links</u>) between nodes. These data links are established over <u>cable media</u> such as wires or optic cables, or <u>wireless media</u> such as <u>WiFi</u>.

Network computer devices that originate, <u>route</u> and terminate the data are called network nodes. Nodes are identified by <u>network addresses</u> and can include <u>hosts</u> such as <u>personal computers</u>, <u>phones</u>, <u>servers</u> as well as <u>networking hardware</u>. Two such devices can be said to be networked together when one device is able to exchange information with the other device, whether or not they have a direct connection to each other. In most cases, application-specific communications protocols are <u>lavered</u> (i.e. carried as <u>pavload</u>) over other more general communications protocols. This formidable collection of <u>information technology</u> requires skilled <u>network management</u> to keep it all <u>running reliably</u>.

Computer networks support an enormous number of <u>applications</u> and <u>services</u> such as access to the <u>World Wide Web</u>, <u>digital video</u>, <u>digital audio</u>, shared use of <u>application and storage servers</u>, printers, and <u>fax machines</u>, and use of <u>email</u> and <u>instant messaging</u> applications as well as many others. Computer networks differ in the <u>transmission medium</u> used to carry their signals, <u>communications protocols</u> to organize network traffic, the network's size, <u>topology</u>, <u>traffic control</u> mechanism and organizational intent. The best-known computer network is the <u>Internet</u>.

Computer networking may be considered a branch of <u>electrical</u> <u>engineering</u>, <u>electronics engineering</u>, <u>telecommunications</u>, <u>computer science</u>, <u>information technology</u> or <u>computer engineering</u>, since it relies upon the theoretical and practical application of the related disciplines.

A computer network facilitates interpersonal communications allowing users to communicate efficiently and easily via various means: email, instant messaging, online chat, telephone, video telephone calls, and video conferencing. A network allows sharing of network and computing resources. Users may access and use resources provided by devices on the network, such as printing a document on a shared network printer or use of a shared storage device. A network allows sharing of files, data, and other types of information giving authorized users the ability to access information stored on other computers on the network. Distributed computing uses computing resources across a network to accomplish tasks.

A computer network may be used by <u>security hackers</u> to deploy <u>computer</u> <u>viruses</u> or <u>computer worms</u> on devices connected to the network, or to prevent these devices from accessing the network via a <u>denial-of-service attack</u>.

A <u>communication protocol</u> is a set of rules for exchanging information over a network. In a <u>protocol stack</u> (also see the <u>OSI model</u>), each protocol leverages the services of the protocol layer below it, until the lowest layer controls the hardware which sends information across the media. The use of protocol layering is today ubiquitous across the field of computer networking. An important example of a protocol stack is <u>HTTP</u> (the <u>World Wide Web protocol</u>) running over <u>TCP</u> over <u>IP</u> (the <u>Internet protocols</u>) over <u>IEEE 802.11</u> (the Wi-Fi protocol). This stack is used between the <u>wireless router</u> and the home user's personal computer when the user is surfing the web.

Communication protocols have various characteristics. They may be <u>connection-oriented</u> or <u>connectionless</u>, they may use <u>circuit mode</u> or <u>packet switching</u>, and they may use hierarchical addressing or flat addressing.

(taken from: https://en.wikipedia.org/wiki/Computer_network)

Темы сообщений к дифференцированному зачету

- 1. Introduction. About myself.
- 2. My friend.
- 3. My family.
- 4. My working day.
- 5. My home.
- 6. My home city.
- 7. Hobbies.
- 8. Travelling.
- 9. English in our life.
- 10. Education.
- 11. My university. KuzSTU.
- 12. Russia. The State and political system of Russia.
- 13. Moscow. Places of interests
- 14. Great Britain. State and political system of Great Britain.
- 15.London. Places of interests
- 16.Sports.
- 17.Keeping fit.
- 18.Environment.
- 19. Technical progress.
- 20. Modern devices.
- 21. The Internet.
- 22. Kuzbass industrial and agricultural centre of Siberia.
- 23.My future profession.