

МИНОБРНАУКИ РОССИИ
ВЛАДИВОСТОКСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ

**РАБОЧАЯ ПРОГРАММА
УЧЕБНОЙ ДИСЦИПЛИНЫ**

СГ.02 Иностранный язык в профессиональной
деятельности

программы подготовки специалистов среднего звена
09.02.06 Сетевое и системное администрирование

Форма обучения: очная

Владивосток 2026

Рабочая программа учебной дисциплины СГ.02 Иностранный язык в профессиональной деятельности разработана в соответствии с требованиями Федерального государственного образовательного стандарта среднего профессионального образования по специальности 09.02.06 Сетевое и системное администрирование, утвержденного приказом Минобрнауки России от 10.07.2023, № 519 примерной образовательной программой.

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Рассмотрена на заседании ЦМК Филологии
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1 ОБЩАЯ ХАРАКТЕРИСТИКА ПРОГРАММЫ УЧЕБНОЙ ДИСЦИПЛИНЫ

1.1 Место дисциплины в структуре основной образовательной программы

Учебная дисциплина СГ.02 Иностранный язык в профессиональной деятельности является частью социально-гуманитарного учебного цикла основной образовательной программы (далее ООП) в соответствии с ФГОС СПО по специальности 09.02.06 Сетевое и системное администрирование.

1.2 Цель и планируемые результаты освоения дисциплины

По итогам освоения дисциплины, обучающиеся должны продемонстрировать результаты обучения, соотнесённые с результатами освоения ООП СПО, приведенные в таблице.

Код компетенции	Умения	Знания
ОК 09	понимать общий смысл четко Произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах на знакомые общие и профессиональные темы; строить простые высказывания о себе и о своей профессиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересующие профессиональные темы объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересующие профессиональные темы	правила построения простых и сложных предложений на профессиональные темы; основные общеупотребительные глаголы (бытовая и профессиональная лексика); Лексический минимум, относящийся к описанию предметов, средств и процессов профессиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности

2. СТРУКТУРА И СОДЕРЖАНИЕ УЧЕБНОЙ ДИСЦИПЛИНЫ

2.1 Объем учебной дисциплины и виды учебной работы

Вид учебной работы	Объем часов
Максимальная учебная нагрузка (всего)	237
Обязательная аудиторная учебная нагрузка (всего)	170
в том числе:	
практические занятия	170
самостоятельная работа студента (всего)	67
консультации	
в том числе:	
Итоговая аттестация в форме дифференцированного зачета	

2.2 Тематический план и содержание учебной дисциплины

Наименование разделов и тем	Содержание учебного материала и формы организации деятельности обучающихся	Объем в часах	Коды компетенций, формированию которых способствует элемент программы
1	2	3	4
Раздел 1. Повседневное общение		20	
Тема 1.1. Описание людей: друзей, родных и близких и т.д.(внешность, характер, личностные качества)	Содержание учебного материала	8	ОК 09
	Практическое занятие № 1 Введение. Входной контроль, тест	2	
	Практическое занятие № 2 Фонетический материал: основные звуки и интонаемы английского языка; основные способы написания слов на основе знания правил правописания; совершенствование орфографических навыков.	2	
	Практическое занятие № 3 Лексический материал по теме.	2	
	Практическое занятие № 4 Грамматический материал: простые нераспространенные предложения с глагольным, составным именным и составным глагольным сказуемым (с инфинитивом); простые предложения, распространенные за счет однородных членов предложения и/или второстепенных членов предложения; предложения утвердительные, вопросительные, отрицательные, побудительные и порядок слов в них; безличные предложения; понятие глагола-связки.	2	
Тема 1.2. Межличностные отношения дома, в учебном заведении, на работе. Повседневная жизнь, условия жизни, учебный день, выходной день	Содержание учебного материала	12	ОК 09
	Практическое занятие № 5 Лексический материал по теме:расширение потенциального словаря за счет овладения интернациональной лексикой, новыми значениями известных слов и новых слов, образованных на основе продуктивных способов словообразования	2	
	Практическое занятие № 6 Грамматический материал: модальные глаголы, их эквиваленты; предложения с оборотом there is/are; сложносочиненные предложения: бессоюзные и с союзами and, but; образование и употребление глаголов в Present, Past, Future Simple/Indefinite	2	
	Практическое занятие № 7 Лексический материал по теме, расширение потенциального словаря	2	

	Практическое занятие № 8 Грамматический материал: имя существительное: его основные функции в предложении; имена существительные во множественном числе, образованные по правилу, а также исключения. - артикль: определенный, неопределенный, нулевой. Основные случаи употребления определенного и неопределенного артикля. Употребление существительных без артикля.	2	OK 09
	Практическое занятие № 9 Грамматический материал: числительные; система модальности; образование и употребление глаголов в Past, Future Simple/Indefinite.	2	
	Практическое занятие № 10 Контрольная работа	2	
Раздел 2 Профессиональное общение		150	
Тема 2.1 Аппаратное обеспечение (Hardware)	Содержание учебного материала	12	
	Практическое занятие № 11 What is a Computer	2	OK 09
	Практическое занятие № 12 Hardware	2	
	Практическое занятие № 13 A Computer System Грамматика и лексика: временные формы глагола; глагол to be с инфинитивом; оборот to be + of + существительное; существительное в функции определения; числительные	2	
	Практическое занятие № 14 CPU	2	
	Практическое занятие № 15 Motherboard and Memory	2	
	Практическое занятие № 16 Storage	2	
	Самостоятельная работа обучающихся Портфолио или учебно-контрольный файл обучающегося.	4	
Тема 2.2 Основная система ввода и вывода данных и операционная система (BIOS and Operating System)	Содержание учебного материала	12	
	Практические занятия		OK 09
	Практическое занятие № 17 BIOS	2	
	Практическое занятие № 18 BIOS	2	
	Практическое занятие № 19 Business World – Company of the Month: Microsoft Грамматика и лексика: причастие I, II; слова some, the same; значения слова as и сочетаний с ним; степени сравнения прилагательных и наречий, сравнительные конструкции	2	
	Практическое занятие № 20 General Features Of Operating Systems	2	
	Практическое занятие № 21 General Features Of Operating Systems	2	
	Практическое занятие № 22 Revision, test	2	

Тема 2.3 Сети (Networks)	Содержание учебного материала	14	
	Практическое занятие № 23 Types of Network	2	OK 09
	Практическое занятие № 24 Uses of Computer Networks	2	
	Практическое занятие № 25 Грамматика и лексика: причастие II в постпозиции; глаголы, выражающие долженствование; временные формы глаголов и причастий I и II	2	
	Практическое занятие № 26 Networking Hardware	2	
	Практическое занятие № 27 Networking Software	2	
	Практическое занятие № 28 Network topologies and protocols	2	
	Практическое занятие № 29 Revision, test	2	
Тема 2.4 Эталонные модели коммуникационных сетей (Reference Models Communication Networks)	Содержание учебного материала	6	
	Практическое занятие № 30 OSI reference model	2	OK 09
	Практическое занятие № 31 The TCP/IPreference model	2	
	Практическое занятие № 32 Грамматика и лексика: временные формы глаголов и причастий I и II; бессоюзное присоединение определительных придаточных предложений	2	
	Самостоятельная работа обучающихся Catherine Bull Investigates This Week: Software	12	
Тема 2.5 Структурированная кабельная система (Structured Cabling System)	Содержание учебного материала	14	
	Практическое занятие № 33 Twisted Pair Cable	2	OK 09
	Практическое занятие № 34 Twisted Pair Cable	2	
	Практическое занятие № 35 Грамматика и лексика: инфинитив в функции подлежащего, обстоятельств цели и следствия; оборот «for + существительное + инфинитив»; значения слов one, it	2	
	Практическое занятие № 36 Coaxial Cable	2	
	Практическое занятие № 37 Coaxial Cable	2	
	Практическое занятие № 38 Fiber Optic Cable	2	
	Практическое занятие № 39 Revision, test	2	
Тема 2.6 Secure Network Безопас-	Содержание учебного материала	14	

ность сети (Secure Network)	Практическое занятие № 40 Network Protection	2	OK 09
	Практическое занятие № 41 Network Protection	2	
	Практическое занятие № 42 Network Security Devices	2	
	Практическое занятие № 43 Online safety	2	
	Практическое занятие № 44 Грамматика и лексика: сложное дополнение; значения слов и сочетаний due, which	2	
	Практическое занятие № 45 Online safety	2	
	Практическое занятие № 46 Cybercrime	2	
Тема 2.7 Карьера в ИТ (Career in IT)	Содержание учебного материала	8	OK 09
	Практическое занятие № 47 Advantages and Disadvantages	2	
	Практическое занятие № 48 Future jobs	2	
	Практическое занятие № 49 Effective E-Mail — How to Communicate Powerfully by E-Mail Грамматика и лексика: инфинитив в функции определения, вводное слово there	2	
	Практическое занятие № 50 Applying for a Job	2	
Тема 2.8 Искусственный интеллект (Artificial Intelligence)	Содержание учебного материала	10	OK 09
	Практическое занятие № 51 What is AI?	2	
	Практическое занятие № 52 What is AI?	2	
	Практическое занятие № 53 Грамматика и лексика: сложное дополнение; значение слова result и сочетаний с ним; значения слов most, that, those	2	
	Практическое занятие № 54 Myths and Facts about AI	2	
	Практическое занятие № 55 AI and education		
	Самостоятельная работа обучающихся работа над резюме и жизнеописанием	20	
Тема 2.9 Интернет (Internet)	Содержание учебного материала	10	OK 09
	Практическое занятие № 56 What is Internet?	2	
	Практическое занятие № 57 Грамматика и лексика: сложные формы инфинитива; неполное предложение; сравнительная конструкция the...the; значение слова for	2	
	Практическое занятие № 58 What is Social Media?	2	
	Практическое занятие № 59 Social Media in my life	2	
	Практическое занятие № 60 Revision, test	2	

Тема 2.10 ИТ безопасность (IT Security)	Содержание учебного материала	10	
	Практическое занятие № 61 What is information technology security?	2	OK 09
	Практическое занятие № 62 Antivirus software	2	
	Практическое занятие № 63 Грамматика и лексика: сложное дополнение, инфинитив	2	
	Практическое занятие № 64 Types of cybercrimes and their impact	2	
	Практическое занятие № 65 Revision, test	2	
Тема 2.11 Интернет вещей (Internet of Things)	Содержание учебного материала	10	
	Практическое занятие № 66 What is Internet of things?	2	OK 09
	Практическое занятие № 67 Грамматика и лексика: простые и сложные формы причастий	2	
	Практическое занятие № 68 Smart City	2	
	Практическое занятие № 69 Smart Homes	2	
	Практическое занятие № 70 Revision, test	2	
	Самостоятельная работа составить ЛСС	10	
Тема 2.12 Будущие тренды (Future trends)	Содержание учебного материала	18	
	Практическое занятие № 71 What Is Next?	2	OK 09
	Практическое занятие № 72 What Is Next?	2	
	Практическое занятие № 73 Wearable Computers. Грамматика и лексика: независимый причастный оборот; союз whether; значение существительного means и глагола to mean; значение слова any	2	
	Практическое занятие № 74 The Lucky Generation	2	
	Практическое занятие № 75 What's Next? Грамматика и лексика: конверсия; предложения типа It is necessary that	2	
	Практическое занятие № 76 Opportunities and Challenges	2	
	Практическое занятие № 77 Breaking Down Barriers	2	
	Практическое занятие № 78 Breaking Down Barriers	2	
	Практическое занятие № 79 Revision	2	
	Самостоятельная работа обучающихся составить презентацию о трендах	9	
Тема 2.13 Будущие тренды (Future trends)	Содержание учебного материала	12	OK 09
	Практическое занятие № 80 The Look of Screens to Come	2	
	Практическое занятие № 81 The Internet on TV	2	
	Практическое занятие № 82 The Internet on TV	2	

	Практическое занятие № 83 Language focus	2	
	Практическое занятие № 84 Shaping The Internet Age	2	
	Практическое занятие № 85 Revision	2	
	Самостоятельная работа обучающихся составить презентацию по теме	12	
Всего		253	

3 УСЛОВИЯ РЕАЛИЗАЦИИ ПРОГРАММЫ ДИСЦИПЛИНЫ

3.1 Для реализации программы учебной дисциплины должны быть предусмотрены следующие специальные помещения: наличие учебного кабинета «Иностранного языка в профессиональной деятельности».

Оборудование учебного кабинета:

- посадочные места по количеству обучающихся;
- рабочее место преподавателя;
- комплект учебно-наглядных пособий «Страноведение»;
- грамматические таблицы;
- дидактические материалы;
- пособия для мультимедийного оборудования.
- методические рекомендации по созданию презентаций
- методические рекомендации по грамматике английского языка

Технические средства обучения:

Мультимедийный комплект (проектор CASIO XJ-V2, экран LUMIEN Eco Picture) – 1 шт., персональный компьютер Lenovo ThinkCentre – 21 шт., наушники Sanako SLHO7 – 21 шт., колонки Microlab 2.0 SOLO4C – 1 шт., стол – 21 шт., стул – 21 шт.

Лицензионное программное обеспечение:

OS Windows 10, Microsoft Office 10, Nibelung 3.8, Toefl, словари – Multitran, ABBYY Lingvo

3.2 Информационное обеспечение реализации программы

Для реализации программы библиотечный фонд ВВГУ имеет печатные и/или электронные образовательные и информационные ресурсы, для использования в образовательном процессе. При формировании библиотечного фонда образовательной организацией выбирается не менее одного издания из перечисленных ниже печатных изданий и (или) электронных изданий в качестве основного, при этом список, может быть дополнен новыми изданиями.

Основная литература

- 1.Байдикова, Н. Л. Английский язык для технических направлений (B1–B2) : учебное пособие для среднего профессионального образования / Н. Л. Байдикова, Е. С. Давиденко. — Москва : Издательство Юрайт, 2022. — 171 с. — (Профессиональное образование). — ISBN 978-5-534-10078-5. — Текст : электронный // ЭБС Юрайт [сайт]. — URL: <https://urait.ru/bcode/455909>
- 2.Бутенко, Е. Ю. Английский язык для ИТ-специальностей. IT-English : учебное пособие для среднего профессионального образования / Е. Ю. Бутенко. — 2-е изд., испр. и доп. — Москва : Издательство Юрайт, 2017. — 119 с. — (Профессиональное образование). — ISBN 978-5-534-07790-2. — Текст : электронный // ЭБС Юрайт [сайт]. — URL: <https://urait.ru/bcode/452590>
- 3.Кузьменкова, Ю. Б. Английский язык для технических колледжей (A1) : учебное пособие для среднего профессионального образования / Ю. Б. Кузьменкова. — Москва : Издательство Юрайт, 2019. — 207 с. — (Профессиональное образование). — ISBN 978-5-534-12346-3. — Текст : электронный // ЭБС Юрайт [сайт]. — URL: <https://urait.ru/bcode/463497>
- 4.Куряева, Р. И. Английский язык. Лексико-грамматическое пособие в 2 ч. Часть 1 : учебное пособие для среднего профессионального образования / Р. И. Куряева. — 8-е изд., испр. и доп. — Москва : Издательство Юрайт, 2022. — 264 с. — (Профессиональное образование). — ISBN 978-5-534-09890-7. — Текст : электронный // ЭБС Юрайт [сайт]. — URL: <https://urait.ru/bcode/452245>
- 5.Стогниева, О. Н. Английский язык для ИТ-специальностей : учебное пособие для среднего профессионального образования / О. Н. Стогниева. — Москва : Издательство Юрайт,

2021. — 143 с. — (Профессиональное образование). — ISBN 978-5-534-07972-2. — Текст : электронный // ЭБС Юрайт [сайт]. — URL: <https://urait.ru/bcode/449184>

Дополнительные источники:

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4 КОНТРОЛЬ И ОЦЕНКА РЕЗУЛЬТАТОВ ОСВОЕНИЯ УЧЕБНОЙ ДИСЦИПЛИНЫ

Контроль и оценка результатов освоения учебной дисциплины осуществляется преподавателем в процессе проведения практических занятий и тестирования, а также выполнения обучающимися индивидуальных заданий, презентаций.

Результаты обучения (освоенные умения, усвоенные знания)	Формы и методы контроля и оценки результатов обучения
1	2
Умения:	
<u>говорение:</u> – вести диалог (диалог–расспрос, диалог–обмен мнениями/суждениями, диалог–побуждение к действию, этикетный диалог и их комбинации) в ситуациях официального и неофициального общения в бытовой, социокультурной и учебно-трудовой сферах, используя аргументацию, эмоционально-оценочные средства;	практические занятия, беседа\дискуссия
– рассказывать, рассуждать в связи с изученной тематикой, проблематикой прочитанных/прослушанных текстов; описывать события, излагать факты, делать сообщения;	практические занятия, реферат, презентация
–создавать словесный социокультурный портрет своей страны и страны/стран изучаемого языка на основе разнообразной страноведческой и культуроведческой информации;	практические занятия, реферат, презентация
<u>аудирование:</u> – понимать относительно полно (общий смысл) высказывания на изучаемом иностранном языке в различных ситуациях общения;	практические занятия, просмотр учебных фильмов
– понимать основное содержание аутентичных аудио- или видеотекстов познавательного характера на темы, предлагаемые в рамках курса, выборочно извлекать из них необходимую информацию;	практические занятия, просмотр видеофильмов
– оценивать важность/новизну информации, определять свое отношение к ней;	практические занятия ситуативная беседа
<u>чтение</u> – читать аутентичные тексты разных стилей (публицистические, художественные, научно-популярные и технические), используя основные виды чтения (ознакомительное, изучающее, просмотровое/поисковое) в зависимости от коммуникативной задачи;	практические занятия, просмотровое и поисковое чтение газетных, журнальных статей (со словарём, без словаря)
<u>письменная речь</u> – описывать явления, события, излагать факты в письме личного и делового характера;	практические занятия реферат, презентация

– заполнять различные виды анкет, сообщать сведения о себе в форме, принятой в стране/странах изучаемого языка;	практические занятия
Знания:	
– значения новых лексических единиц, связанных с тематикой данного этапа и с соответствующими ситуациями общения;	практические занятия, монологическая речь, диалогическая речь
– языковой материал: идиоматические выражения, оценочную лексику, единицы речевого этикета и обслуживающие ситуации общения в рамках изучаемых тем;	практические занятия, диалогическая речь, полилог
– новые значения изученных глагольных форм (видо-временных, неличных), средства и способы выражения модальности; условия, предположения, причины, следствия, побуждения к действию;	практические занятия, тестирование
– лингвострановедческую, страноведческую и социокультурную информацию, расширенную за счет новой тематики и проблематики речевого общения;	практические занятия, монологическая речь, диалогическая речь, полилог
– тексты, построенные на языковом материале повседневного и профессионального общения, в том числе инструкции и нормативные документы по профессиям и специальностям СПО	практические занятия, письмо
	По всем темам программы осуществляется текущий контроль, рубежный и итоговый. Оценка результатов обучения производится при помощи бально-рейтинговой системы

МИНОБРНАУКИ РОССИИ
ВЛАДИВОСТОКСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ

КОНТРОЛЬНО-ОЦЕНОЧНЫЕ СРЕДСТВА
для проведения текущего контроля и промежуточной аттестации
по учебной дисциплине

СГ.02 Иностранный язык в профессиональной
деятельности

программы подготовки специалистов среднего звена
09.02.06 Сетевое и системное администрирование

Форма обучения: очная

Владивосток 2026

Контрольно-оценочные средства для проведения текущего контроля и промежуточной аттестации по учебной дисциплине 09.02.01 Компьютерные системы и комплексы разработаны в соответствии с требованиями ФГОС СПО по специальности 09.02.06 Сетевое и системное администрирование, утвержденного приказом Минобрнауки РФ от 10.07.2023, № 519, примерной образовательной программой, рабочей программой учебной дисциплины.

Разработчик: Трушкина И.А. – преподаватель Колледжа сервиса и дизайна

Рассмотрены на заседании ЦМК филологии
Протокол № 9 от «15» мая 2026 г.

Председатель ЦМК _____ И.А. Трушкина

1 Общие сведения

Контрольно-оценочные средства (далее – КОС) предназначены для контроля и оценки образовательных достижений обучающихся, освоивших программу учебной дисциплины СГ.02 Иностранный язык в профессиональной деятельности.

КОС включают в себя контрольные материалы для проведения текущего контроля успеваемости и промежуточной аттестации по дисциплине, которая проводится в форме дифференцированного зачёта (с использованием оценочного средства - *устный опрос в форме ответов на вопросы билетов, устный опрос в форме собеседования, выполнение письменных заданий, тестирование и т.д.*)

2 Планируемые результаты обучения по дисциплине, обеспечивающие результаты освоения образовательной программы

Код ОК, ПК	Код результата обучения	Наименование
ОК 09	31	правила построения простых и сложных предложений на профессиональные темы; основные общеупотребительные глаголы (бытовая и профессиональная лексика)
	32	лексический минимум, относящийся к описанию предметов, средств и процессов профессиональной деятельности; особенности производства; правила чтения текстов профессиональной направленности
	У1	понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах на знакомые общие и профессиональные темы
	У2	строить простые высказывания о себе и о своей профессиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересующие профессиональные темы
	У3	писать простые связные сообщения на знакомые или интересующие профессиональные темы и объяснять свои действия (текущие и планируемые)

3 Соответствие оценочных средств контролируемым результатам обучения

3.1 Средства, применяемые для оценки уровня практической подготовки

Краткое наименование раздела (модуля) / темы дисциплины	Код результата обучения	Показатель овладения результатами обучения	Наименование оценочного средства и представление его в КОС	
			Текущий контроль	Промежуточная аттестация
Раздел 1 Повседневное общение				
Тема 1.1 Практические	31	Использовать правила построения простых и сложных		

Краткое наименование раздела (модуля) / темы дисциплины	Код результата обучения	Показатель овладения результатами обучения	Наименование оценочного средства и представление его в КОС	
			Текущий контроль	Промежуточная аттестация
занятия № 1 – 4		предложений на профессиональные темы; владеть основными общеупотребительными глаголами(бытовая и профессиональная лексика)	Выполнение упражнений (п.5.1 Theme 1, 3, п. 5.2 входной тест, Test 1 Test 2 Test 3 Test 4 Test 5 п.5.3 exercises 1-8)	Выполнение упражнений (п. 6.1 в 1, в 2)
	32	Употреблять лексический минимум, относящийся к описанию предметов, средств и процессов профессиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности		
	У1	Понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах на знакомые общие и профессиональные темы		
	У2	Строить простые высказывания о себе и о своей профессиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересующие профессиональные темы		
	У3	Писать простые связные сообщения на знакомые или интересующие профессиональные темы и объяснять свои действия (текущие и планируемые)		
Тема 1.2 Практические занятия № 5 – 10	31	Использовать правила построения простых и сложных предложений на профессиональные темы; владеть основными общеупотребительными глаголами(бытовая		

Краткое наименование раздела (модуля) / темы дисциплины	Код результата обучения	Показатель овладения результатами обучения	Наименование оценочного средства и представление его в КОС	
			Текущий контроль	Промежуточная аттестация
		и профессиональная лексика)	Выполнение упражнений (п.5.1 Theme 2, п. 5.2 Test 6 Test 7 Test 8 Test 9 Test 10 п.5.3 exercises 9-15)	Выполнение упражнений (п. 6.1 в 3)
	32	Употреблять лексический минимум, относящийся к описанию предметов, средств и процессов профессиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности		
	У1	Понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах на знакомые общие и профессиональные темы		
	У2	Строить простые высказывания о себе и о своей профессиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересующие профессиональные темы		
	У3	Писать простые связные сообщения на знакомые или интересующие профессиональные темы и объяснять свои действия (текущие и планируемые)		
Раздел 2 Профессиональное общение				
Тема 2.1 Практические занятия № 11 – 16	31	Использовать правила построения простых и сложных предложений на профессиональные темы; владеть основными общеупотребительными глаголами(бытовая и профессиональная лексика)		Выполнение

Краткое наименование раздела (модуля) / темы дисциплины	Код результата обучения	Показатель овладения результатами обучения	Наименование оценочного средства и представление его в КОС	
			Текущий контроль	Промежуточная аттестация
	32	Употреблять лексический минимум, относящийся к описанию предметов, средств и процессов профессиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности	Выполнение упражнений (п. 5.4 Task 1, Task 2)	упражнений (п. 6.1 Task 1)
	У1	Понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах на знакомые общие и профессиональные темы		
	У2	Строить простые высказывания о себе и о своей профессиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересующие профессиональные темы		
	У3	Писать простые связные сообщения на знакомые или интересующие профессиональные темы и объяснять свои действия (текущие и планируемые)		
Тема 2.2 Практические занятия № 17 –22	31	Использовать правила построения простых и сложных предложений на профессиональные темы; владеть основными общеупотребительными глаголами (бытовая и профессиональная лексика)	Выполнение упражнений (п. 5.4 Task 3)	Выполнение упражнений (п. 6.1, Task 2)
	32	Употреблять лексический минимум, относящийся к описанию предметов, средств и процессов профес-		

Краткое наименование раздела (модуля) / темы дисциплины	Код результата обучения	Показатель овладения результатами обучения	Наименование оценочного средства и представление его в КОС	
			Текущий контроль	Промежуточная аттестация
		сиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности		
	У1	Понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах на знакомые общие и профессиональные темы		
	У2	Строить простые высказывания о себе и о своей профессиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересующие профессиональные темы		
	У3	Писать простые связные сообщения на знакомые или интересующие профессиональные темы и объяснять свои действия (текущие и планируемые)		
Тема 2.3 Практические занятия № 23 – 29	31	Использовать правила построения простых и сложных предложений на профессиональные темы; владеть основными общеупотребительными глаголами (бытовая и профессиональная лексика)	Выполнение упражнений (п. 5.4, Task 4, Task 5)	Выполнение упражнений (п. 6.1, Task 3)
	32	Употреблять лексический минимум, относящийся к описанию предметов, средств и процессов профессиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности		

Краткое наименование раздела (модуля) / темы дисциплины	Код результата обучения	Показатель овладения результатами обучения	Наименование оценочного средства и представление его в КОС	
			Текущий контроль	Промежуточная аттестация
		сти		
	У1	Понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах на знакомые общие и профессиональные темы		
	У2	Строить простые высказывания о себе и о своей профессиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересующие профессиональные темы		
	У3	Писать простые связные сообщения на знакомые или интересующие профессиональные темы и объяснять свои действия (текущие и планируемые)		
Тема 2.4 Практические занятия № 30 – 32	31	Использовать правила построения простых и сложных предложений на профессиональные темы; владеть основными общеупотребительными глаголами (бытовая и профессиональная лексика)	Выполнение упражнений (п. 5.4, Task 6, Task 7)	Выполнение упражнений (п. 6.1, Task 4)
	32	Употреблять лексический минимум, относящийся к описанию предметов, средств и процессов профессиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности		
	У1	Понимать общий смысл четко произнесенных высказываний на известные темы		

Краткое наименование раздела (модуля) / темы дисциплины	Код результата обучения	Показатель овладения результатами обучения	Наименование оценочного средства и представление его в КОС	
			Текущий контроль	Промежуточная аттестация
		(профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах на знакомые общие и профессиональные темы		
	У2	Строить простые высказывания о себе и о своей профессиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересующие профессиональные темы		
	У3	Писать простые связные сообщения на знакомые или интересующие профессиональные темы и объяснять свои действия (текущие и планируемые)		
Тема 2.5 Практические занятия № 33 – 39	31	Использовать правила построения простых и сложных предложений на профессиональные темы; владеть основными общеупотребительными глаголами (бытовая и профессиональная лексика)	Выполнение упражнений (п. 5.4, Task 8)	Выполнение упражнений (п. 6.1, Task 5)
	32	Употреблять лексический минимум, относящийся к описанию предметов, средств и процессов профессиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности		
	У1	Понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах		

Краткое наименование раздела (модуля) / темы дисциплины	Код результата обучения	Показатель овладения результатами обучения	Наименование оценочного средства и представление его в КОС	
			Текущий контроль	Промежуточная аттестация
		на знакомые общие и профессиональные темы		
	У2	Строить простые высказывания о себе и о своей профессиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересующие профессиональные темы		
	У3	Писать простые связные сообщения на знакомые или интересующие профессиональные темы и объяснять свои действия (текущие и планируемые)		
Тема 2.6 Практические занятия № 40 – 46	31	Использовать правила построения простых и сложных предложений на профессиональные темы; владеть основными общеупотребительными глаголами (бытовая и профессиональная лексика)	Выполнение упражнений (п. 5.4 Task 9)	Выполнение упражнений (п. 6.1 Task 6, Task 7)
	32	Употреблять лексический минимум, относящийся к описанию предметов, средств и процессов профессиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности		
	У1	Понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах на знакомые общие и профессиональные темы		
	У2	Строить простые высказывания о себе и о своей профес-		

Краткое наименование раздела (модуля) / темы дисциплины	Код результата обучения	Показатель овладения результатами обучения	Наименование оценочного средства и представление его в КОС	
			Текущий контроль	Промежуточная аттестация
		сиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересные профессиональные темы		
	У3	Писать простые связные сообщения на знакомые или интересные профессиональные темы и объяснять свои действия (текущие и планируемые)		
Тема 2.7 Практические занятия № 47 – 50	31	Использовать правила построения простых и сложных предложений на профессиональные темы; владеть основными общеупотребительными глаголами (бытовая и профессиональная лексика)	Выполнение упражнений (п. 5.4 Task 10)	Выполнение упражнений (п. 6.1 Task 8, Task 9, Task 10)
	32	Употреблять лексический минимум, относящийся к описанию предметов, средств и процессов профессиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности		
	У1	Понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах на знакомые общие и профессиональные темы		
	У2	Строить простые высказывания о себе и о своей профессиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать		

Краткое наименование раздела (модуля) / темы дисциплины	Код результата обучения	Показатель овладения результатами обучения	Наименование оценочного средства и представление его в КОС	
			Текущий контроль	Промежуточная аттестация
Тема 2.8 Практические занятия № 51 – 55		простые связные сообщения на знакомые или интересующие профессиональные темы	Выполнение упражнений (п. 5.4 Task 11)	Выполнение упражнений (п. 6.1 Task 11, Task 12)
	У3	Писать простые связные сообщения на знакомые или интересующие профессиональные темы и объяснять свои действия (текущие и планируемые)		
	31	Использовать правила построения простых и сложных предложений на профессиональные темы; владеть основными общеупотребительными глаголами (бытовая и профессиональная лексика)		
	32	Употреблять лексический минимум, относящийся к описанию предметов, средств и процессов профессиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности		
	У1	Понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах на знакомые общие и профессиональные темы		
	У2	Строить простые высказывания о себе и о своей профессиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересующие профессиональные темы		

Краткое наименование раздела (модуля) / темы дисциплины	Код результата обучения	Показатель овладения результатами обучения	Наименование оценочного средства и представление его в КОС	
			Текущий контроль	Промежуточная аттестация
	У3	Писать простые связные сообщения на знакомые или интересующие профессиональные темы и объяснять свои действия (текущие и планируемые)		
Тема 2.9 Практические занятия № 56 – 60	31	Использовать правила построения простых и сложных предложений на профессиональные темы; владеть основными общеупотребительными глаголами (бытовая и профессиональная лексика)	Выполнение упражнений (п. 5.4 Task 12, Task 13)	Выполнение упражнений (п. 6.1 Task 13)
	32	Употреблять лексический минимум, относящийся к описанию предметов, средств и процессов профессиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности		
	У1	Понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах на знакомые общие и профессиональные темы		
	У2	Строить простые высказывания о себе и о своей профессиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересующие профессиональные темы		
	У3	Писать простые связные сообщения на знакомые или интересующие профессиональные темы и объяснять		

Краткое наименование раздела (модуля) / темы дисциплины	Код результата обучения	Показатель овладения результатами обучения	Наименование оценочного средства и представление его в КОС	
			Текущий контроль	Промежуточная аттестация
		свои действия (текущие и планируемые)		
Тема 2.10 Практические занятия № 61 – 65	31	Использовать правила построения простых и сложных предложений на профессиональные темы; владеть основными общеупотребительными глаголами (бытовая и профессиональная лексика)	Выполнение упражнений (п.5.4 Task 14)	Выполнение упражнений (п. 6.1 Task 14)
	32	Употреблять лексический минимум, относящийся к описанию предметов, средств и процессов профессиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности		
	У1	Понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах на знакомые общие и профессиональные темы		
	У2	Строить простые высказывания о себе и о своей профессиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересующие профессиональные темы		
	У3	Писать простые связные сообщения на знакомые или интересующие профессиональные темы и объяснять свои действия (текущие и планируемые)		
Тема 2.11 Практические	31	Использовать правила построения простых и сложных	Выполнение упражнений	Выполнение упражнений

Краткое наименование раздела (модуля) / темы дисциплины	Код результата обучения	Показатель овладения результатами обучения	Наименование оценочного средства и представление его в КОС	
			Текущий контроль	Промежуточная аттестация
занятия № 66 – 70		предложений на профессиональные темы; владеть основными общеупотребительными глаголами(бытовая и профессиональная лексика)	(п.5.4 Task 15)	(п.6.1 Task 15)
	32	Употреблять лексический минимум, относящийся к описанию предметов, средств и процессов профессиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности		
	У1	Понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах на знакомые общие и профессиональные темы		
	У2	Строить простые высказывания о себе и о своей профессиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересующие профессиональные темы		
	У3	Писать простые связные сообщения на знакомые или интересующие профессиональные темы и объяснять свои действия (текущие и планируемые)		
Тема 2.12 Практические занятия № 71 – 79	31	Использовать правила построения простых и сложных предложений на профессиональные темы; владеть основными общеупотребительными глаголами(бытовая	Выполнение упражнений (п.5.4 Task 16)	Выполнение упражнений (п.6.1 Task 16)

Краткое наименование раздела (модуля) / темы дисциплины	Код результата обучения	Показатель овладения результатами обучения	Наименование оценочного средства и представление его в КОС	
			Текущий контроль	Промежуточная аттестация
		и профессиональная лексика)		
	32	Употреблять лексический минимум, относящийся к описанию предметов, средств и процессов профессиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности		
	У1	Понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах на знакомые общие и профессиональные темы		
	У2	Строить простые высказывания о себе и о своей профессиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересующие профессиональные темы		
	У3	Писать простые связные сообщения на знакомые или интересующие профессиональные темы и объяснять свои действия (текущие и планируемые)		
Тема 2.13 Практические занятия № 80 – 85	31	Использовать правила построения простых и сложных предложений на профессиональные темы; владеть основными общеупотребительными глаголами (бытовая и профессиональная лексика)		
	32	Употреблять лексический минимум, относящийся к описанию предметов,		

Краткое наименование раздела (модуля) / темы дисциплины	Код результата обучения	Показатель овладения результатами обучения	Наименование оценочного средства и представление его в КОС	
			Текущий контроль	Промежуточная аттестация
		средств и процессов профессиональной деятельности; особенности произношения; правила чтения текстов профессиональной направленности	Выполнение упражнений (п.5.4 Task 17)	Выполнение упражнений (п.6.1 Task 17)
	У1	Понимать общий смысл четко произнесенных высказываний на известные темы (профессиональные и бытовые), понимать тексты на базовые профессиональные темы; участвовать в диалогах на знакомые общие и профессиональные темы		
	У2	Строить простые высказывания о себе и о своей профессиональной деятельности; кратко обосновывать и объяснять свои действия (текущие и планируемые); писать простые связные сообщения на знакомые или интересующие профессиональные темы		
	У3	Писать простые связные сообщения на знакомые или интересующие профессиональные темы и объяснять свои действия (текущие и планируемые)		

5. Примеры оценочных средств для проведения текущей аттестации

5.1 Вопросы для собеседования (устного опроса):

Theme 1. My Family

1. Is your family large?
2. What members does it consist of?
3. What is your mother's name? (father's)
4. How old is she? (he)
5. What is your name?
6. What are you?
7. Where do you live?
8. Is your college far from your house?
9. What do you do in your spare time?

10. What do the members of your family like to do in the evening?

Theme 2. Different kinds of hobbies.

1. What is hobby?
2. Why do people choose a hobby?
3. What categories are hobbies divided into?
4. What can you say about art?
5. What is the most widespread kind of hobby?
6. Whom attract handicrafts?
7. Who likes games and sports?
8. What do people like collecting?
9. What does hobby offer?
10. What is your hobby?

Theme 3. Education

1. What is education?
2. Are there two types of education?
3. When do people enter a system of formal education?
4. Do learners have to pass the exams?
5. What do the learners earn at the end of their learning?
6. What education do the school systems of all modern nations provide?
7. When does informal education involve people in learning?
8. What does general education aim?
9. What does vocational education aim?
10. What are adult education programs provided for?

5.2 Примеры тестовых заданий

Входной тест

Choose the right variant.

1. I don't remember ... that I'm sure you're mistaken.
a) to say; b) say; c) saying; d) to have said.
2. There were two answers, and ... was right.
a) neither; b) no one; c) no; d) not any.
3. This dress is ... as the one I had before.
a) plenty the same; b) very similar; c) very same; d) much the same.
4. He ... here from 1955 to 1960.
a) worked; b) works; c) has been working; d) has worked.
5. He's... his sister.
a) much taller that; b) much more taller than; c) much taller than; d) more taller than.
6. Be careful you don't... your keys!
a) lost; b) loosen; c) lose; d) loose.
7. What they say may be true; you never can...
a) say; b) tell; c) remember; d) recognise.
8. He didn't move, but just... where he fell.
a) lain; b) lay; c) laid; d) lied.
9. I haven't had a reply to the invitation I sent you last week. ... to my patty?
a) Shall you come; b) Are you coming; c) Do you come; d) Should you come,
10. That man reminds me ... my history teacher.
a) from; b) of; c) about; d) on.
11. The children hadn't met ... their grandparents or their uncle before.
a) or, b) neither; c) nor, d) either.
12. Before she started university, Jane ... in the States for six months working as a nanny.
a) lives; b) has been living; c) has lived; d) had lived.
13. He was ... tired to go on.

- a) to; b) enough; c) so; d) too.
14. I ... saw Michael two years ago.
a) lastly; b) last time; c) last; d) the last time.
15. I like the red dress and the pink shoes. The trouble is that they don't ...very well.
a) match not each other; b) match themselves; c) go with each other; d) go on with the other.
16. He's as polite as his brother is ...polite. (подобрать префикс)
a) im; b) non; c) dis; d) un.
17. It's been quite a long time ... I had a holiday abroad,
a) ago; b) since; c) for; d) when.
18. You ... pay for this information. It's free.
a) oughtn't to; b) don't have to; c) shouldn't to; d) mustn't.
19. ... quite a lot of rain forecast for today.
a) It has; b) Is; c) It's; d) There's.
20. I'm free this evening. ... we go out to dinner?
a) Will; b) Would; c) Shall; d) Won't.
21. I need a holiday, ... I?
a) need not; b) aren't; c) don't; d) need.
22. Most of the cattle ... under the trees.
a) is laying; b) is lying; c) are lying; d) are laying.
23. Children seem to find computers easy, but many adults aren't used to ... with microtechnology.
a) work; b) working; c) a work; d) the work.
24. Parents were made ... the school reconstruction,
a) finance; b) to financing; c) to finance; d) financing.
25. The children have made lots of new friends since we ... to this town.
a) have moved; b) moving; c) moved; d) have been moved.
26. I don't understand this sentence. Could you tell me what ...?
a) this word means; b) means this word; c) does mean this word; d) does this word mean.
27. ... of the three boys got a prize,
a) A few; b) Both; c) Each; d) Every.
28. The agency intended to let each applicant... in the interview.
a) participate; b) to participate; c) so as to participate; d) participating.
29. All the children in this family are gifted, but this one is ... gifted of all.
a) little; b) the less; c) the least; d) un- .
30. He enjoyed ... computer games at first, but after a while he got bored with them.
a) to play; b) playing; c) make play; d) having played.
31. We haven't managed to meet... three years.
a) since; b) for; c) after; d) last.
32. Nothing is wrong,...?
a) can it; b) is it; c) isn't it; d) can't be.
33. A meeting of the society will be ... on Tuesday evening at 6 o'clock.
a) made; b) taken; c) held; d) placed.
34. May I apologize ... being so late?
a) myself for; b) for; c) -; d) myself.
35. All the furniture in this room ... antique.
a) are; b) are made of; c) have; d) is.
36. ... traffic in the city center.
a) There's always many; b) It is always heavy; c) There's always heavy; d) It is always much.
37. You'll find the travel agency ... the end of the street.
a) by; b) in; c) on; d) at.
38. She ... the piano since she was ten.
a) has been playing; b) is playing; c) has played; d) had played.

39. Doing these exercises may be good ... me, but I hate every minute of it.
a) to; b) for; c) on; d) at.
40. She heard Miss Drake ... that Ann was really happy.
a) tell; b) to tell; c) say; d) to say.
41. You have bought a FIAT. You ... a BMW.
a) should have bought; b) would have bought; c) had better buy; d) would rather have bought.
42. Poor Jack — he lost his homework, and he ... do it again,
a) needs; b) ought; c) shall; d) has to.
43. The food at the party was horrible, I've never eaten ... awful food!
a) such a; b) such; c) such an d) so.
44. "I'm not very hungry". — "..."
a) Neither do I; b) I am; c) So am I; d) Nor I am.
45. The... from London to Bristol takes two hours by car.
a) travel; b) journey; c) voyage; d) driving.
46. Open the window, ... you?
a) must; b) need; c) will; d) do.
47. You must try not to ... so many mistakes.
a) do; b) tell; c) make; d) perform.
48. Helen asked me if... the film called "Star wars".
a) have I seen; b) have you seen; c) had I seen; d) I had seen.
49. I promise that I... to work on time every morning in future,
a) get; b) am getting; c) will get; d) would get.
50. I'm not going to tell you the reason ... my decision,
a) to; b) with; c) on; d) for.

USE OF GRAMMAR answers.

- 1-c; 2-a; 3-d; 4-a; 5-c; 6-c; 7-b; 8-b; 9-b; 10-b; 11-d; 12-d; 13-d; 14-c; 15-c; 16-a; 17-b; 18-b; 19-d; 20-c; 21-c; 22-c; 23-b; 24-c; 25-c; 26 — a; 27-c; 28-a; 29-c; 30-b; 31-b; 32-b; 33-c; 34-b; 35-d; 36-c; 37-d; 38-a; 39-b; 40-c; 41-a; 42-d; 43-b; 44-b; 45-b; 46-c; 47-c; 48-d; 49-c; 50-d.

Test 1

Choose the right variant.

- Have you ever visited other countries? - Yes, I... to Italy and France.
a) was c) had been
b) have been d) would be
- I feel really tired. We ... to the party last night and have just returned home.
a) went c) had seen
b) has gone d) was going
- At the beginning of the film I realized that I ... it before.
a) see c) had seen
b) saw d) have seen
- When the bus stopped in the small square, Helen ... her magazine and didn't realized at first that she had arrived at her destination.
a) read c) was reading
b) reads d) had read
- My sister's son ... in tomorrow's race, because he is too young. They do not allow riders under sixteen.
a) won't ride c) wouldn't ride
b) shan't ride d) doesn't ride
- A beautiful bridge ... in our city. It will be finished next year.
a) builds c) is being built
b) is built d) has been built

7. It has been raining for two hours. I hope it ... raining soon.
 a) stops c) would stop
 b) shall stop d) stop
8. Television has many advantages. It keeps us informed about the latest news, and also ... entertainment at home.
 a) provide c) is provided
 b) provides d) provided
9. On the other hand television ... for the violent behavior of some young people, and for encouraging children to sit indoors, instead of doing sports.
 a) blames c) is blamed
 b) blamed d) would blame
10. Some millionaires have lots of money and ... what to do with it.
 a) don't know c) won't know
 b) didn't d) knows
11. How ... at college? You didn't say much about it in your last letter.
 a) do you get on c) will you get on
 b) are you get on d) are you getting on
12. When you ... in this city again? - In a month.
 a) arrive c) have you arrived
 b) arrived d) will you arrive
13. Every time that I miss the bus, it means that I ... walk to work.
 a) has to c) had to
 b) have to d) could
14. Every time when I missed the bus, I ... to return home late.
 a) must c) can
 b) had d) may
15. That was great! It was ... meal you have ever cooked.
 a) good c) best
 b) better d) the best
16. This exhibition is ... interesting than the previous one.
 a) little c) least
 b) less d) the least
17. We saw ... good film last night. The film was about the love of a girl to her cat and dog.
 a) a c) -
 b) the d) an
18. Everybody agrees that ... happiness is very important in the life of people.
 a) - c) a
 b) the d) many
19. In the past people lived in ... harmony with the environment.
 a) a c) the
 b) an d) -
20. When they arrived ... the station, they rushed to the platform not to miss the train.
 a) to c) in
 b) at d) for

Test 2

Choose the right variant.

1. When you ... older, you'll change your mind about this.
 a) will grow c) have grown
 b) grow d) grew
2. By the time the police get there, the burglars
 a) vanish c) will have vanished

- b) will vanish d) vanished
3. As soon as the taxi arrives, I ... you know.
- a) let c) had let
- b) have let d) will let
4. My friend has been writing to me for years already, but he never ... a photo.
- a) sends c) will send
- b) has sent d) sent
5. Why are you busy packing? - My train ... in two hours, so we'll leave the house in an hour.
- a) is leaving c) leaves
- b) will be leaving d) left
6. When was this building finished? - They say it ... by the end of last year.
- a) had been finished c) will be finished
- b) was finished d) finishes
7. I thought that I ... my key and was very glad when I found it.
- a) lose c) had lost
- b) lost d) was losing
8. What's the matter? You look upset. Last week I lost my scarf and now I just ... my gloves.
- a) lost c) had lost
- b) have lost d) lose
- 9.1 ... for this bank for five years already but I have decided to change my job.
- a) am working c) have been working
- b) has worked d) worked
10. Martin said that he ... the tickets the next day.
- a) bought c) will buy
- b) had bought d) would buy
11. The house opposite our college ..., that's why we are using the back entrance at present.
- a) pulls down c) is being pulled down
- b) is pulled down d) pulled down
12. You ... an umbrella when you left the house, didn't you?
- a) have c) had had
- b) was having d) had
13. By the time we got to the cinema the film
- a) will begin c) had begun
- b) would begin d) began
14. Is there anything I ... do to help you?
- a) can c) am to
- b) may d) as to
15. The last film I saw was ... frightening than this one.
- a) little c) least
- b) less d) the least
16. Someone is calling you. Will you answer ... phone?
- a) a c) -
- b) the d) these
17. To tell the truth I don't like ... pair of trousers that I bought last month.
- a) those c) that
- b) this d) a
18. Whose house is it? - It's
- a) my c) her
- b) mine d) our
19. Today is ... cold than yesterday. So, I'm wearing my shorts.
- a) little c) least

- b) less d) the least
 20. "Come home ... Christmas Day, we'll be waiting for you", my mother always says to me.
 a) in c) -
 b) on d) at

Test 3

Choose the right variant.

1. Excuse me, do you speak English? I ... for a hotel.
 a) look c) was looking
 b) am looking d) have been looking
2. Last summer we wanted a relaxing holiday, so we ... to stay on a small island.
 a) choose c) had chosen
 b) have chosen d) chose
3. Mathematics ... hard. I don't understand it.
 a) are c) was
 b) is d) were
4. While we ... for the train, it started to rain.
 a) waited c) was waiting
 b) are waiting d) were waiting
5. The police officer said that every house in that street ... already by the police.
 a) search c) had been searched
 b) were searched d) searched
6. There is going to be a big art exhibition. It... a lot of visitors.
 a) attracts c) has attracted
 b) will attract d) attracted
7. The result of his investigation ... in the newspaper soon.
 a) publish c) will be published
 b) be published d) is published
8. When they arrived home, their children ... outside the door waiting for them.
 a) sit c) was sitting
 b) are sitting d) were sitting
9. We ... a new computer not long ago. Now the job will be done much more quickly.
 a) had bought c) bought
 b) was bought d) have bought
10. He was sorry that he ... to me for so long.
 a) didn't write c) hadn't been writing
 b) haven't been writing d) hasn't been writing
11. The ring you found ... be returned to an old lady who had lost it.
 a) can c) have to
 b) must d) are to
12. Everybody in our team played ... except the captain.
 a) bad c) worst
 b) badly d) the worst
13. You know much, but you know ... than your teacher.
 a) little c) least
 b) less d) much
14. Small shops are not as ... as supermarkets.
 a) more convenient c) most convenient
 b) convenient d) the most convenient
15. Sarah is a very good pianist. She plays ... piano very well.
 a) a c) the
 b) an d) -
16. We had five phone calls, but there were ... for you.

- a) no c) either
b) none d) neither
17. I didn't have much time, but I ... visit a lot of places of interest in London.
a) can c) must
b) was able to d) had to
18. That's an easy question! ... knows the answer!
a) All c) Each
b) Everybody d) Every
19. The comic told silly jokes, but nobody laughed ... him.
a) on c) at
b) under d) about
20. We feel sorry ... Sam because he hasn't got any friends.
a) for c) with
b) about d) by

Test 4

Choose the right variant.

1. If I ... some fish, will you cook it for me?
a) will catch c) caught
b) catch d) am catching
2. She said that she ... her present flat. She tried to find another one.
a) doesn't like c) didn't like
b) won't like d) likes
3. I saw you yesterday from the bus. Where ... you ... at that time?
a) was hurrying c) had hurried
b) were hurrying d) did hurry
4. I found that everything I said on the phone ... to the police.
a) report c) was reported
b) is reported d) had been reported
5. When I speak Italian, all the others in the class ... at me as I don't know the language well.
a) laughed c) will laugh
b) was laughing d) laugh
6. He ... in the Army for eighteen months. This is his last month.
a) serves c) has been serving
b) is serving d) have served
7. Don't make noise: the children ... to sleep.
a) try c) will try
b) is trying d) are trying
8. A new museum ... in the city. What a beautiful building it will be!
a) was being built c) is built
b) is being built d) builds
9. Two terrorists ... in New York some days ago.
a) are arrested c) were arrested
b) have been arrested d) will be arrested
10. I ... understand this letter. Will you translate it for me?
a) mustn't c) may not
b) can't d) shouldn't
11. Diana's parents don't let her go to late-night disco. She ... be at home at 9 o'clock in the evening.
a) must c) may

- a) lock c) had locked
 b) locked d) would lock
9. As soon as you ... me, I will contact you.
 a) calls c) called
 b) will call d) call
10. I ... him since he started working here.
 a) have never trusted c) trusted
 b) had never trusted d) trust
11. Mary will be ready soon. She ... coffee at the moment.
 a) has c) was having
 b) have d) is having
12. If we ... late for the class, our teacher will be angry with us.
 a) is c) will be
 b) were d) are
13. We ... in the sunshine for about half an hour when I suddenly felt sick.
 a) have been sitting c) sat
 b) were sitting d) had been sitting
14. We were disappointed as the film was ... than we expected.
 a) entertaining c) most entertaining
 b) less entertaining d) entertaining
15. We usually ask our teacher to explain ... difficult problems to us.
 a) the c) a
 b) - d) this
16. Playing ... guitar is an interesting hobby.
 a) - c) the
 b) a d) mine
17. Our city is famous for ... beautiful ancient buildings.
 a) its c) it's
 b) it d) his
18. Her hair is long and fair. Everybody admires
 a) them c) they
 b) it d) its
19. You are very good ... dealing with people.
 a) in c) on
 b) at d) about
20. Last summer our neighbours decided to drive to Scotland ... a short holiday.
 a) at c) on
 b) to d) for

Test 6

Choose the right variant.

1. When the light ... I was sitting in the armchair reading a book.
 a) goes out c) go out
 b) had gone out d) went out
2. I thought I ... this film before, but I hadn't.
 a) saw c) had seen
 b) seen d) have seen
3. Why haven't you brought me the letters for signature? ... them yet?
 a) Don't you type c) Haven't you typed
 b) Didn't you type d) Will you type
4. She wasn't sure whether she ... the door of her flat.

- a) locked c) had locked
b) has locked d) didn't lock
5. I... my homework all morning and haven't finished it yet.
a) am doing c) have been doing
b) do d) did
6. The inspector suspected that the thief ... a special key for opening this door.
a) uses c) had used
b) has used d) will use
7. I was very tired. When I ... to bed, I fell asleep immediately.
a) got c) had got
b) has got d) will get
8. The Vikings ... to North America a thousand years ago.
a) sail c) had sailed
b) sailed d) have sailed
9. Thank you for your offer, but I ... not to accept it.
a) decide c) have decided
b) has decided d) decided
10. You ... through your old photograph album for half an hour already.
a) look c) have looked
b) are looking d) have been looking
11. Nobody knows where his picture is. Perhaps, it
a) was stolen c) has been stolen
b) will be stolen d) stolen
12. I agree. You ... apologize for not inviting him to your birthday party.
a) can't c) shouldn't
b) mustn't d) may not
13. Actually, today I feel ... than I did yesterday.
a) bad c) worst
b) worse d) the worst
14. ... people who are unemployed often feel depressed.
a) The c) A
b) - d) That
15. Who was the first astronaut who landed on ... Moon?
a) the c) a
b) - d) those
16. What happened at the end of the film? - I'm sorry to say, but I haven't seen ... film.
a) a c) -
b) the d) those
17. This is ... interesting exhibition I've ever visited.
a) more c) less
b) most d) the most
18. Would you mind waiting ... minutes?
a) few c) little
b) a few d) a little
19. I'm ... interested in languages than in mathematics,
a) much c) little
b) many d) less
20. The students often translate English texts ... Russian.
a) to c) into
b) in d) on

Test 7

1. My mother ... strawberry

- a) anything c) some

- b) something d) any
 18. The government is going to provide ... houses for homeless people.
 a) much c) most
 b) more d) least
 19. I think of coming to Moscow ... a few days to visit my sister.
 a) of c) for
 b) on d) over
 20. I think we should ask ... some information about this case.
 a) about c) for
 b) - d) on

Test 8

Choose the right variant. 1

1. The train stopped at all the stations, and long before we got to London every seat ... and people were standing in the corridors.
 a) has been taken c) had been taken
 b) was taken d) is taken
 2. Most of the young people left this village a long time ago and nobody ... yet.
 a) returned c) had returned
 b) has returned d) was returned
 3. The police suspected that Bill himself had broken the window at his house because he wanted to make them think that a burglar ... his valuable stamp collection.
 a) stole c) was stealing
 b) had stolen d) has stolen
 4. The police thought that he ... it because he needed money.
 a) did c) was doing
 b) had done d) has done
 5. If you work a bit harder, I'm sure you ... the exam.
 a) pass c) have passed
 b) will pass d) would pass
 6. Where are you going? I ... speaking with you yet.
 a) not finished c) haven't finished
 b) didn't finish d) don't finish
 7. I didn't see where the bus stop was, so I ... the bus yesterday.
 a) miss c) has missed
 b) missed d) had missed
 8. Last week a burglar broke into the house while we ... television.
 a) watch c) watched
 b) have watched d) were watching
 9. When are you going to finish this translation? - I ... this translation today.
 a) finish c) have finished
 b) finished d) had finished
 10. I felt really tired. We ... for two hours before we reached the nearest hotel.
 a) walked c) have been walking
 b) were walking d) had been walking
 11. My father is sure that most people ... bicycles to work in twenty years' time.
 a) shall ride c) ride
 b) will be riding d) are riding
 12. The plane ... take off after the fog had lifted.
 a) must c) can
 b) was able to d) may
 13. Finally we ... stop: we were tired and it was dark.

- a) can c) must
b) may d) had to
14. In the past most of the population lived in ... country.
a) the c) -
b) a d) this
15. The judge sent our neighbor to ... prison for a month.
a) the c) -
b) a d) an
16. ... English are proud of their country and that the English language is spoken all over the world.
a) the c) an
b) - d) few
17. Why have you done it? Oh, there are ... reasons for it.
a) much c) a little
b) little d) many
18. Sorry, but I can't hear ... of you properly.
a) neither c) nobody
b) either d) none
19. We were looking forward ... a quiet rest near the forest.
a) for c) on
b) to d) at
20. Our city is famous ... its beautiful ancient buildings.
a) of c) by
b) for d) with

Test 9

Choose the right variant.

1. My passport ... last month, and nobody has found it yet .
a) lost c) has been lost
b) was lost d) had been lost
2. There's going to be an interesting art exhibition. It ... a lot of visitors.
a) attracts c) will attract
b) attract d) would attract
3. Have you head the news? He ... all his exams this week.
a) passed c) had passed
b) has passed d) pass
4. By the time we get to the cinema the film
a) will begin c) will have begun
b) begins d) began
5. He says his train ... at 8 a.m. He's packing his things at the moment.
a) leave c) has left
b) leaves d) would leave
6. I was quite ... to see Ben behaving like that.
a) shocked c) being shocked
b) shocking d) shock
7. I ... on the phone when the postman knocked on the door and entered the room.
a) speak c) was speaking
b) am speaking d) have spoken
8. We first came to this town more than twenty years ago. Everything ... in the town since that time.
a) change c) has changed
b) changed d) is changed

9. We didn't know that Bill ... to Brazil the week before, and he was abroad when the burglary took place.
 a) flew c) has flown
 b) had flown d) would flow
10. I arrived in Prague in September last year. So I ... here for six months.
 a) live c) have lived
 b) lived d) will live
11. While I was wondering whether to buy the shoes or not, they ... by someone else.
 a) buy c) were bought
 b) bought d) had been bought
12. He was happy. He ... pass his driving test at the first attempt.
 a) should c) had to
 b) must d) was able to
13. At present I ... afford to go to the cinema twice a week.
 a) can't c) must not
 b) couldn't d) might not
14. We didn't think you were ... in ancient history.
 a) interested c) not interesting
 b) interesting d) less interesting
15. Every morning I listen to ... radio, but I don't like to watch TV so early.
 a) the c) -
 b) a d) these
16. ... English is the world language and the English language spoken in the USA or Australia differs from the English language spoken in Britain.
 a) the c) an
 b) - d) a
17. You are always quarreling! Stop it, ... of you!
 a) everybody c) both
 b) some d) every
18. Mr. Smith was accused of spying and put ... prison.
 a) in c) at
 b) of d) to
19. Our city succeeded ... collecting a large sum of money for charity.
 a) on c) with
 b) in d) at
20. I'm sorry ... your difficulties. Can I help?
 a) for c) about
 b) at d) on

Test 10

Choose the right variant.

1. It's 11 o'clock so I ... to bed now.
 a) go c) will go
 b) am going d) have gone
2. The tickets to the football match usually ... and checked at the entrance.
 a) sell c) are sold
 b) was sold d) won't be sold
3. We ... to the party today.
 a) have been invited c) have invited
 b) are invited d) had been invited
4. The baby ... because it is hungry now.

- a) crying c) cries
b) is crying d) cried
5. There ... a lot of people waiting in the station yesterday evening.
a) is c) was
b) are d) were
6. Some people ... on the benches waiting for their trains.
a) was sleeping c) have slept
b) were sleeping d) had slept
7. By the time the train arrived, Susan ... to push her way to the front of the crowd.
a) managed c) had managed
b) has managed d) would manage
8. ... you ... my English book anywhere? I can find it nowhere.
a) Did ... see c) Will ... see
b) Have ... seen d) Had ... seen
9. He ... the text before I decided to help him.
a) translated c) has translated
b) had translated d) will translate
10. It ... in London this morning that the British Oil Corporation had discovered oil under the sea near the Welsh coast.
a) announced c) had been announced
b) would be announced d) was announced
11. If he ... when I come, I won't wake him up.
a) sleep c) will sleep
b) will be sleeping d) is sleeping
12. ... they leave before supper or have they time to stay until my friends come?
a) must c) might
b) may d) should
13. My ... brother studies at college.
a) old c) older
b) elder d) the eldest
14. This is ...film I have ever seen.
a) good c) worse
b) the best d) better
15. ... Hyde Park is a very large park in central London.
a) - c) a
b) the d) an
16. My friends tell me that professors are people who think a lot, but say
a) little c) a few
b) few d) some
17. These books cost ... than my friend wants to pay.
a) more c) most
b) much d) the most
18. He has earned so ... money that he has decided to help the poor.
a) much c) little
b) many d) few
19. They go to work by car and come home ... foot.
a) by c) with
b) on d) in
20. The bus from Glasgow arrives ... the Central bus station.
a) at c) in
b) to d) for

Ключи к заданиям:

Test 1

- 1) b; 2) a; 3) c; 4) c; 5) a; 6) c; 7) a; 8) b; 9) c; 10) a; 11) d; 12) d; 13) b; 14) b; 15) d; 16) b; 17) a; 18) a; 19) d; 20) b.

Test 2

- 1) b; 2) c; 3) d; 4) b; 5) c; 6) a; 7) c; 8) b; 9) c; 10) d; 11) c; 12) d; 13) c; 14) a; 15) b; 16) b; 17) c; 18) b; 19) b; 20) b.

Test 3

- 1) b; 2) d; 3) b; 4) d; 5) c; 6) b; 7) c; 8) d; 9) c; 10) c; 11) b; 12) b; 13) b; 14) b; 15) c; 16) b; 17) b; 18) b; 19) c; 20) a.

Test 4

- 1) b; 2) c; 3) b; 4) c; 5) d; 6) c; 7) d; 8) b; 9) c; 10) b; 11) a; 12) c; 13) c; 14) b; 15) c; 16) c; 17) a; 18) b; 19) a; 20) d.

Test 5

- 1) b; 2) c; 3) d; 4) b; 5) b; 6) c; 7) b; 8) c; 9) d; 10) a; 11) d; 12) d; 13) d; 14) b; 15) b; 16) c; 17) a; 18) b; 19) b; 20) d.

Test 6

- 1) d; 2) c; 3) c; 4) c; 5) c; 6) c; 7) a; 8) b; 9) c; 10) d; 11) c; 12) c; 13) b; 14) b; 15) a; 16) b; 17) d; 18) b; 19) d; 20) c.

Test 7

- 1) c; 2) b; 3) d; 4) c; 5) c; 6) c; 7) b; 8) b; 9) c; 10) b; 11) d; 12) d; 13) a; 14) b; 15) a; 16) b; 17) a; 18) b; 19) c; 20) c.

Test 8

- 1) c; 2) b; 3) b; 4) b; 5) b; 6) c; 7) b; 8) d; 9) c; 10) d; 11) b; 12) b; 13) d; 14) a; 15) c; 16) a; 17) d; 18) b; 19) b; 20) b.

Test 9

- 1) b; 2) c; 3) b; 4) c; 5) b; 6) a; 7) c; 8) c; 9) b; 10) c; 11) c; 12) d; 13) a; 14) a; 15) a; 16) b; 17) c; 18) d; 19) b; 20) c

Test 10 1) b; 2) c; 3) a; 4) b; 5) d; 6) b; 7) c; 8) b; 9) b; 10) d; 11) d; 12) a; 13) b; 14) b; 15) a; 16) a; 17) a; 18) a; 19) b; 20) a;

Критерии оценки

- оценка «отлично» выставляется обучающемуся, если студент выполнил задание от 91% до 100%

- оценка «хорошо», если студент выполнил задание от 70% до 90%

- оценка «удовлетворительно», если студент выполнил задание от 50% до 69%

- оценка «неудовлетворительно», если студент выполнил задание менее 50%

5.3 Фонетический практикум

Ex. 1. Прочтите слова, обращая внимание на тип слога:

blame, melt, be, had, five, my, run, bite, best, spoke, stock, hill, meet, cut, send, bed, style, side, plan, miss, bitter, typist, nut, use, us, plane, lake, lye, fat, biter, better, mist, six, style, tube, dust, lunch, space, bottle, rise, raze, symbol, mutton, vote, office, luck, bad, long, no, note, just, club, shelf, summer, subject, pencil.

Ex. 2. Прочтите слова, обращая внимание на чтение гласных в ударных открытых и закрытых слогах перед r:

star, pure, birch, hire, turn, short, severe, born, birth, lyre, care, prepare, torn, spare, parent, far, person, mere, merge, bar, cure, wire, admire, bare, shore, lord, north, bird, hurt, verse, tired,

term, forty, hard, hare, rare, core, care, large, share, harm, spur, girl, dirty, satire, fork, charm, scare, morning, first, turtle, more, skirt.

Ex. 3. Прочтите слова, обращая внимание на правила чтения буквы с:

crystal, teacher, fetch, cubic, chorus, place, cut, cap, cat, nice, cent, inch, mice, clean, came, cattle, space, fancy, nice, cent, clap, pick, pocket, price, prick, record, recite, cony, church, face, chuck, care, core, charm, cure, deck, chalk, ticket, topic, French, chess, fact, cinema, children, choice, child, chill, choose, pitch, chip, Jack, catch, scale, cost, chemistry, school.

Ex. 4. Прочтите слова, обращая внимание на правила чтения буквы s:

[s] – Mike's flat, student's decision, accountant's, papers;

[z] – girl's doll, engineer's map, country's flag, this year's plan, people's will, this family's friends;

[iz] – Max's books, Mr Fox's car, Mrs Patch's husband;

[s] – speaks, helps, sits, breaks, costs, eats, writes, fights, keeps, makes, sleeps, translates;

[z] – reads, leaves, gives, goes, becomes, says, drives, flies, knows, pays, spoils, sends, tells;

[iz] – teaches, freezes, kisses, discusses, loses, watches, sneezes;

Ex. 5. Прочтите слова, обращая внимание на правила чтения буквы s:

shave, smoke, choose, stage, finish, shape, nose, use, fuse, books, lags, sea, spare, less, towns, factories, west, rules, flash, push, pencils, maps, forks, shows, mash, hooks, as, bees, speak, disk, seas, has, sake, deeds, notes, bells, slope, so, stock, say, says, sells, likes, tins, seats, seeds, state, nose, tables, close, is, lessons, days, rose, stress, lives, reads, goes, begins, teaches, writes, plays, studies, does, boys, gives, listens, works.

Ex. 6. Прочтите слова, обращая внимание на правила чтения буквы g:

big, bag, dog, grey, grow, cage, general, glad, gem, gold, page, gin, gypsy, night, nought, bought, high, gas, globe, fog, age, flag, glide, ginger, glad, go, egg, glim, bridge, gate.

Ex. 7. Прочтите слова, обращая внимание на особенности чтения согласных:

a) what, young, chalk, page, switch, social, knife, what, quarter, union, why, parents, experiment, yesterday, pleasant, accept, space, keeps, exam;

b) see, reads, please, keeps, teacher, three, easy; space, climate, mice, guide, gate; general, guest, liquid, centre;

c) girl, third, turn, furniture, surname, party, dark, morning, before, town, air, tired, here, chair;

d) chalk, which, who, wrong, know, phase, comb, science, listen, lecture, discussion, initial, Russian, bought, debt, foreign, chemistry.

Ex. 8. Прочтите, обращая внимание на правила чтения гласных и согласных букв:

Which is which?

We were very worried.

She was wearing silver ear-rings.

Where's the railway timetable?

What are you waiting for?

Out of sight, out of mind.

Fight fire with fire.

It's never too late to learn.

Never judge from appearances.

Why do you cry, Willy?

Why do you cry?

Why, Willy? Why, Willy?
Why, Willy? Why?

Ex. 9. Прочтите следующие предложения с правильной интонацией:

- A.** Is this a ↗pencil? 'Is this a ↗black pencil? 'Are 'these ↗pens? 'Are 'those 'pens ↗too? 'Is this ↗salt? 'Is there any ↗butter on the plate? 'Do you 'want to ↗eat? 'Have you ever 'been to St. ↗Petersburg? 'Did you 'come 'home ↗late yesterday?
- B.** A ↗picture, a ↗book and a ↗pen are on the ↘table. There is a ↗table, six ↗chairs and an ↘armchair in this room. I 'like to play ↗football, ↗volleyball, ↗basketball and ↘handball. In the ↗South I'll ↗swim, 'lie in the ↗sun and 'play ↘volleyball.
- C.** On the ↗wall opposite the ↗window 'there is a 'large ↘map. On the ↗shelves you can 'find many ↗books in 'all 'foreign ↘languages. The ↗apples that are on the ↗plate are ↘ripe. ↗Canada which is situated to the 'North of ↗America is a ↘big country.
- D.** 'Is this a ↗bed or a ↘sofa? Are these ↗books or ↘notebooks? 'Is this a ↗good car or a ↘bad car? Are these ↗big houses or ↘small houses? 'Is the 'day ↗long or ↘short? Is the 'school ↗new or ↘old? Is there a – ↗TV set or a ↘radio set in the room?
- E.** He is a ↘foreigner, ↗isn't he?
You are ↘not a Londoner, ↗are you?
Your 'friend has just 'returned from ↘London, ↗hasn't he?
You'll 'do your ↘best, ↗won't you?

Ex. 10. Прочтите с правильной интонацией:

Our classroom

We are in our ↘classroom. We are at an English ↘lesson. The classroom is ↗light and ↘clean. There is much ↘air in the room. The ceiling is ↗white, the walls are ↗blue, the door and the floor are ↘brown. They are ↘not yellow.

There is a ↘blackboard in the room. It is on the ↘wall. It is big and ↘nice. There are many tables and ↘chairs there. Is there a ↗map on the wall? ↘No, there ↘isn't. There is no ↘map on the wall. There is a ↘picture there. It is a picture of a ↘town.

How many chairs and ↘tables are there in the room? There are ten ↗tables and twenty ↘chairs there. They are ↘brown. There is a ↘bookcase there, too. It is full of Russian ↘books. There are a few ↘English books there, ↘too.

Ex. 11. Прочтите с правильной интонацией:

My flat

My 'flat is in the 'centre of ↘Biysk. There are 'four ↘rooms in it: 'two ↗bedrooms, | a ↗dining room and a ↘study. They are 'good and ↘clean. Be↗sides| there is a 'bathroom and a ↘kitchen.

'In the ↗dining room | there is a ↗table | which is in the 'middle of the ↘room. There are some ↗chairs, | some ↗armchairs, a ↗cupboard and a '↘sofa. The 'table is ↘round. There is a 'vase with ↘flowers on it.

My 'favourite 'room is the ↘study. There are 'many ↗bookcases 'full of 'interesting ↘books there. 'Some are in the 'English ↘language. The 'bedrooms are 'very ↘light. There is 'much ↘air in them.

'In my ↗bedroom there is a ↘bed with a night-table near it | and a ↘wardrobe. 'On the ↗floor there is a 'small' ↘carpet.

'Are there any 'pictures in your ↗bedroom? No, there 'aren't ↘any. There are 'some in the ↘dining-room. 'Is there 'anything on the 'walls of your ↗study? Yes, there is a 'map on the ↘wall. 'Is there 'anybody at ↗home now? I'm afraid there is ↘nobody at home, they are 'all at '↘work now.

Ex. 12. Прочтите с правильной интонацией:

At home

At ʒnight |when I 'feel ʒtired and ʒsleepy, | I 'go 'up to my ʒbedroom | and 'switch 'on the eʒlectric ʒlight. I 'take 'off my ʒshoes, | 'undress | and 'put 'on my pyʒjamas. 'Then I 'get in-to ʒbed | and 'switch 'off the ʒlight. 'After a ʒfew minutes | I 'fall aʒsleep. I 'sleep the ʒwhole 'night ʒthrough.

'Punctually at 'seven 'thirty in the ʒmorning | the a'alarm clock ʒrings and 'wakes me ʒup. I 'get 'out of bed, |'put 'on my 'dressing-gown and slippers and go into the bathroom, where I turn on the hot and cold water taps. I wash my face and neck and clean my teeth. Then I turn off the taps and have my bath. Sometimes I have a shower. Then I dry myself with a towel and get dressed.

Ex. 13. Прочтите с правильной интонацией:

Mr Payne goes shopping

Mr 'Roger 'Payne lives in ʒLondon. He is a 'teacher of ʒEnglish. He 'teaches 'English to 'foreign ʒstudents at St. 'Giles 'School of ʒLanguages. Mr 'Payne has ↑four 'classes 'four 'times a ʒweek. He likes teaching English to foreign students at St. Giles School of Languages. Mr Payne has four classes four times a ʒweek. He ʒlikes teaching English.

Mr 'Payne has a ʒwife, a ʒdaughter and a ʒson. His 'wife, 'Grace ʒPayne, is a 'teacher ʒtoo. She 'teaches 'French at 'London Uniʒversity. His 'daughter 'Jane is fifʒteen and his 'son ʒDick is ʒtwelve. They are at compreʒhensive school.

'Mrs ʒPayne 'usually goes 'shopping on ʒMonday and ʒWednesday. Mr ʒPayne goes 'shopping on 'Saturday ʒmorning.

It is ʒSaturday today. Mr 'Payne is 'going ʒshopping now. He 'usually 'goes to the supermarket. He can 'buy ↑all they ʒneed there. He 'walks along the ʒcounters and 'puts his 'purchases into the ʒbasket. He 'buys 'two 'white ʒloaves and 'one ʒrye loaf. The 'bread is always ʒfresh there. 'Then he 'buys some ʒmeat, ʒfish, ʒbacon, ʒsausage and ʒcereals. He 'also buys 'vegetables and fruit; poʒtatoes, toʒmatoes, ʒcucumbers, ʒapples, ʒoranges and ʒlemons.

Today Mr Payne must go to a department store. Tomorrow is his son's birthday. Dick is inviting a few friends to his birthday party. Mr Payne must buy a present for his son. He wants Jane to go to the department store with him.

They are going to a big department store in Oxford Street. There are a lot of departments in the store: women's clothes, men's clothes, shoes, sports goods, leather goods and so on.

On the ground floor Mr Payne buys a tie and Jane buys a pair of gloves. Then they go to the second floor, to the Men's Department and buy a blue sweater for Dick. Dick likes that colour. They also buy a box of paints for him. They are very tired. Now they can go to a cafe and have tea.

Ex. 14. Прочтите с правильной интонацией:

Look. Look at the cook. Look at the cook, she would put the pudding on the table. Look at the cook, she would put the pudding on the table if she could.

Two. Two of you. Two of you admired the moon. Two of you admired the moon in June. It's true that two of you admired the moon in June.

I observed. I observed an absurd person. I observed the absurd person and I heard her. I observed the absurd person and I heard her recite the verses. When I returned I observed the absurd person and I heard her recite the verses.

Don't go. Don't go slow. Don't go slowly, Joe. Don't go slowly, Joe, there's no snow. Don't go slowly, Joe, there's no snow on the road.

Dear me. Dear me, I fear. Dear me, I fear I really hear. Dear me, I fear I really hear the deer quite near.

There's a flower. There's a flower near the tower. There's a flower near the tower, it's ours.

My sister. My sister and Tim. My sister and Tim will visit Jim. My sister and Tim will visit Jim who lives in a big city. My sister and Tim will visit Jim who lives in a big city, and they will eat fish and sing.

Fat man. That fat man. That fat man with a black hat. That fat man with a black hat in his hand. That fat man with a black hat in his hand sat in a tram. That fat man with a black hat in his hand who sat in the tram was not my dad.

I can't. I can't laugh. I can't laugh and dance. I can't laugh and dance in grass. I can't laugh and dance in grass in my aunt's garden after dark.

It's not. It's not my fault. It's not my fault that she called. It's not my fault that she called Paul's daughter. It's not my fault that she called Paul's daughter who played with a ball in the hall.

Noise. Noise annoys. Any noise annoys. Any noise annoys any oyster. Any noise annoys an oyster but the noisy annoys an oyster most.

Ex. 15 Прочитайте скороговорки, обращая внимание на произношение дифтонгов

- A **sailor** and a **mate** watch a **baby** whale **playing** on a **great** wave at **daybreak**.
- **Take** care not to **make** many mistakes, when you **bake** those **cakes**.
- **James** takes a **cake** from **Jane's** **plate**, **Jane** takes a **cake** from **James' plate**.
- I don't **care** whether I live **upstairs** or **downstairs**.
- The **square** was **carefully** prepared for the parade.

5.4. Примеры оценочных средств Раздела 2

Task 1

Complete the table. Write down the function of the main computer components

Component	Function
Motherboard	
CPU	
RAM	
GPU	
Storage	

Complete the text with the words given

sound card, coprocessors, parallel port, microprocessor, optical drives, permanent memory, busses, operating systems

Hardware

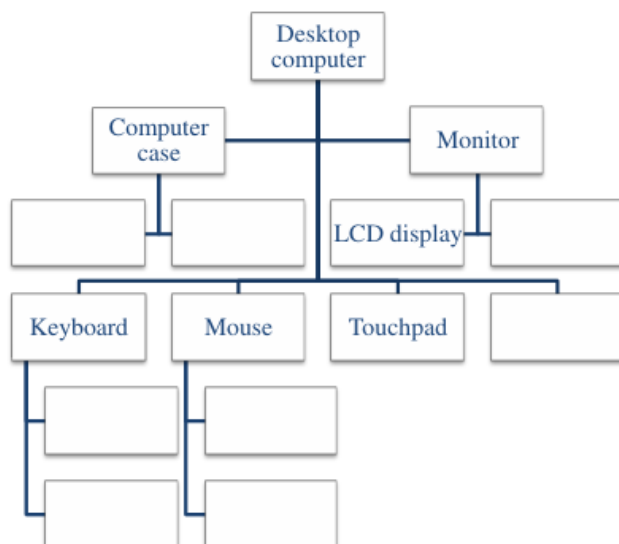
At the heart of the computer are several key components sitting on the motherboard including the _____, the chipset, RAM and a ROM. The CPU includes the microprocessor and RAM. This is what does all the calculations. One or more _____ may or may not be needed depending on what the computer is used for. Today coprocessors are mostly used for 3D graphics (GPUs), sound generation, and physics applications.

RAM is the memory which allows your computer to hold the _____ and all running programs while your computer is in use. On the contrary, ROM is a kind of _____ which works even when the computer is off.

_____ and ports are general terms for connectivity components which connect the different parts of the PC together. These include the serial port, _____, PCI Express busses, and the Universal Serial Bus (USB) controller. These devices allow communication between different parts of the system.

Your _____ and hard disk drives are also components in your computer. The core multimedia components include the _____ and graphics card. They make computing more fun and useful for creative professionals such as designers, gamers, and musicians.

Complete the diagram



Task 2

Complete the gaps

1. M _ N _ _ _ R
2. M _ _ _ E
3. D _ _ G _ E
4. W _ _ C _ _
5. M _ _ _ _ P _ _ _ _ E
6. P _ _ _ T _ _
7. S _ _ _ _ _ S

Read the text and divide it into paragraphs. Negotiate the number of paragraphs with your partner. Present the results to your groupmates. Express the main idea of each paragraph.

Input devices

Input devices are how you interact with a computer. The computer responds to your input and does what you need it to do. It seems really simple, and that's the way it was meant to be! Input devices have a history as long as computers themselves. Perhaps the first input device was the simple electronic switch which turned bits on or off. There were hundreds or even thousands of these switches on larger computers. Switches and jumpers are still used today on computers. For instance, the power button on the computer is a switch which is also an input device telling the computer to power on or power off. The two most popular input devices are the keyboard and the mouse. And instead of a mouse on a laptop computer you normally have a touchpad. As computers evolved throughout the late 20th century, computers became more and more interactive. Input devices came and went. Some lasted and some did not. The light pen and the joystick are almost unknown today, although they were popular before the mouse and the gamepad be-

came well-known. Touch screens are already replacing keypads on mobile phones and may come to replace keyboards and mice on PCs and laptops in the near future. Different people prefer different input devices for doing same task. For instance, many graphic artists prefer to use a stylus and graphics tablet rather than a mouse. It might offer them a greater deal of artistic freedom, or precision while performing their work. Sufferers of carpal tunnel syndrome often prefer a trackball or stylus to a mouse. Handicapped computer users have invented a wide array of input devices designed to replace the mouse including devices controlled by foot or even eye movement. Corporations and especially government institutions are already implementing the second generation of input devices to improve security. These include retina scanners and/or fingerprint readers to replace or improve accuracy of username and password authentication. You will be seeing more of this kind of biometric authentication in the coming years.

Decide whether the sentences are True, False, Not Given. Give the right answer

1. The first input device was a dongle.
2. The power button on a computer is a jumper.
3. The two most popular input devices are the touchpad and a mouse.
4. Touch screens may replace gamepads in the near future.
5. Handicapped computer users cannot use mice and keyboards.
6. Fingerprint readers belong to the second generation of input devices.

Task 3

Match the parts of word combinations

- | | |
|----------------|---------------------|
| 1. lines | problems |
| 2. to boot | testing |
| 3. to have | candidate |
| 4. end | message |
| 5. error | user |
| 6. hardware | platforms |
| 7. emulation | version |
| 8. release | software |
| 9. trial | patches |
| 10. real-world | an operating system |
| 11. to offer | a bug |
| 12. to fix | of code |

Rearrange the words to make complete sentences

1. Time/every/booted/you/is/turn on/system/the computer/the operating.
2. That/alpha/very/confusing/versions/is/many/have/bugs/it.
3. Modification/application/software/open/source/for/ keep/code/the source.
4. Software/of/application/usability/is/of/problems/one/the.
5. Called/is/the/computer/to manage/software/the system/system software.

Fill in the gaps with the words given in the box

End user, programmer, error, to boot, bug, feature, to execute, terminate, crash, to abort

1. The software company needed to hire three new _____ to help debug their flagship application.

2. The program was set _____ every night at midnight.
3. The user was advised to reboot the computer after a serious _____ in which the computer no longer responded.
4. The system administrator need to manually _____ a process before he could reboot the system.
5. When the word processor application crashed, the user had _____ the program and lose all his unsaved changes.
6. The man upgraded his copy of Word because of a new _____ that allowed him to spell-check documents in Spanish.
7. An average developer will create one _____ for every ten lines of code written.
8. The computer reported a «division by zero» _____ and automatically aborted the program.
9. Developers must maintain a close relationship with _____ if they want to have a successful career.
10. Every time you turn on your computer you have _____ an operating system.

Task 4

Match the type of software with its definition

	Type of software	Definition
1	Systems software	A. productivity programs or end-user programs that enable the user to complete tasks, such as creating documents, spreadsheets, databases and publications, doing online research, sending email, designing graphics, running businesses, and even playing games
2	Application software	B. a group of software applications with related functionality
3	Software suite	C. the programs that are dedicated to managing the computer itself, such as operating system, file management utilities, disk operating system (DOS)
4	Proprietary software	D. The kind of software which is normally free to use and modify (with some restrictions). Examples of this type of software is Linux, Mozilla Firefox, Open Office.
5	Open source software	E. The software that is not free to modify and improve. An example of this kind of software is Microsoft Windows or Adobe Photoshop.

Study this list of needs. Which type of peripheral would you advise in each case?

1. inputting printed graphics
2. building cars controlling the screen cursor in a fast action game
3. making choices on a screen in a public information terminal
4. recording moving images
5. printing very high quality text and graphics
6. creating drawings
7. recording sound
8. listening to music without disturbing others
9. storing programs and data
10. inputting a lot of text
11. backing up large quantities of data

Task 4

Task 1. Match the words to their meanings

Words		Meanings	
1	firewall	a	Software that is designed to cause harm or damage to a computer.
2	LAN	b	Wireless technology used for transmitting data over short distances.
3	PAN	c	A computer that is used mainly by people at home rather than by large organizations.
4	WAN	d	A network of personal devices, not necessarily on the internet.
5	Bluetooth	e	A method for sending messages and files to other people.
6	malware	f	A computer that fits in the palm of your hand to help collect such information as contacts, appointments, files, and programs.
7	PDA's	g	Gaining unauthorised access to data in a computer.
8	hacking	h	A device that is not connected to a network or other device.
9	stand-alone	i	It is a malicious program, script, macro, or code designed to damage, steal personal information, modify data, and send e-mail, display messages, or a combination of these actions.
10	PCs	j	A group of interconnected computers/devices.
11	network	k	A network of computers that covers a small area, eg a school or college.
12	Email	l	It is a piece of software usually included as a utility within an operating system that stops unauthorised access to the network.
13	Wi-Fi	m	A network that spans across a building, buildings or even countries.
14	wired	n	A connection that does not need wires and transmits data through radio signals.
15	virus	o	A method of connecting to the internet wirelessly using radio waves.
16	wireless	p	A connection that needs wires or cables to transmit data.

Task 2. Fill in the blanks to complete the sentences. Use Bank — words.

Bank — words: Hacking, stand-alone, Bluetooth, wireless, PDA, virus, Wi-Fi, network, email, malware, PC, firewall, wired

- Put on my _____ headphones, they are much more comfortable.
- It's a video attachment to an _____.
- A computer _____ may lurk unseen in a computer's memory, calling up and infecting each of the machine's data files in turn.
- A breach of our _____ has been detected. _____ points tracked and matched.
- I had to rely on access to a _____ network connection with my laptop, which sometimes involved a long wait.
- If running a virus scan doesn't solve the problem, it may be due to a _____ program that's too new to be caught.
- Without a _____, all your files could be instantly accessible to any competent hacker from anywhere in the world.
- A _____ device is any mechanism or system that performs its function without the need of another device, computer, or connection.
- The mayor said his administration would look at making _____ available citywide at little or no charge.
- I pulled up his employment contract from his _____.
- Almost every company offering financial services over the internet now also has versions for use over another channel: by mobile telephone, _____, and even television and computer-games console.
- You can connect the speaker to your phone via _____.

Task 5

Read and translate the text in written form

The Internet is a collection of networks and is considered the largest global network in the world. Alternatively referred to as a network or web, the Internet (interconnected network) was originally developed to promote the advancement of computing by bringing together academic computer centers. The Internet contains billions of web pages created by people and companies from all over the world, making it a limitless place to find information and entertainment. There are also thousands of services on the Internet that help make life more convenient. For example, many financial institutions offer online banking, which allows the user to manage their account and view it from different locations.

The Internet and the WWW are not the same! The **World Wide Web** (abbreviated as WWW or “web”) is a part of the Internet that can be accessed using a web browser such as Internet Explorer or Firefox. It consists of a large number of web servers that host websites. Each website usually consists of several web pages. A web page can contain text, images, video, animation, and sound. A user can access a website or web page by entering its **URL (Uniform Resource Locator)** in the browser’s address bar.

Most sites have a page that **links** the user to other main areas of the site. This is called the home page. Web pages are linked by hypertext links. When a user clicks on a link, he is taken to a different page, which can be located on a different server in any part of the world.

To connect to the Internet, users need: a computer, a telephone line (with the exception of a cable), a **modem** and / or an Internet **router**, **Internet Service Provider (ISP)**, web browser, such as Internet Explorer, Firefox, Chrome, Safari, Opera, etc.

There are analog connections. A **dial-up** modem converts digital signals from a computer into analog signals, which are then transmitted over a telephone line. The modem on the other end converts the analog signal back into a digital signal that the computer can understand. This type of connection is very slow by today’s standards.

There are **digital** connections. An **Integrated Services Digital Network (ISDN)** telephone line can provide connection speeds of up to 64 Kbit / S (single-channel) or 128 Kbit / s (dual-channel) using a terminal adapter, often referred to as an ISDN modem. The terminal adapter eliminates the need to convert digital signals to analog before they are sent over the phone line, resulting in a more reliable Internet connection.

ADSL (Asymmetric Digital Subscriber Line) provides connection speeds of up to 24 Mbps and uses a telephone line to receive and transmit data. The speed at which data can be transmitted depends on a number of factors. First, telephone lines are designed to transmit voice signals, not data. The signal

quality can vary between lines, and while it doesn’t affect voice signals, it does affect data transmission. The second factor is the distance between the user’s home and the telephone exchange that affects the data transfer rate. A distance of 4 km is considered the limit for ADSL technology, beyond which it may not work. For **broadband** Internet access via ADSL, an ADSL modem/router is required.

Broadband access allows users to quickly **download** feature-rich web pages (with lots of graphics, video, sound, animation, etc.), and allows users to quickly download large files (such as music or video clips). A faster internet connection also means that the response time between a link click and a new page appears is reduced.

The Internet is a global connection with various networks. It allows communication between any two computers on the planet. Everything that a user does in everyday life, such as email, **surfing**, and video chatting is facilitated by the Internet, but only in the part where data is exchanged.

The World Wide Web is a visual medium through which information is accessed. It is built on top of the Internet. The World Wide Web uses web browsers to display the information it receives from the Internet.

Task 6

Task 1. Match the words to their meanings

Words		Meanings	
1	bottleneck	a	This method solves the congestion problem, includes priority schemes, and allocates network resources to specific threads using access control.
2	TELNET	b	Hardware or software elements whose parameters limit the performance improvement of the system.
3	abstract data structures	c	In a layered, open communications system, a specified subset of the services, functions, and protocols included in a given layer.
4	error-free	d	A formal set of format, timing, sequencing, and error control rules for transferring files to and from a remote computer system.
5	ISO	e	Transmitting data that does not contain mistakes; faultless transmitting.
6	transmitter	f	A protocol, which is used as a communication link between two devices.
7	point-to-point channel	g	International program for standardization of data exchange between systems of different manufacturers.
8	EFT	h	An object resembles a sheet of a Microsoft Excel spreadsheet in structure. Each column of the table is a vector containing data of a certain type.
9	sublayer	i	Based on this model, more specific and detailed models are built, which are eventually embodied in real-life objects and mechanisms.
10	buffer	j	A set of equipment used to generate and transmit electromagnetic waves carrying messages or signals, especially those of radio or television.
11	TFTP	k	Containing no mistakes; faultless.
12	control of congestion	l	Special communication protocol, virtual terminal protocol
13	reference model	m	This is a mathematical model for data types, where the data type is determined by the behavior from the point of view of the data user
14	data frame	n	The memory area used for temporary storage of information.

Task 2. Fill in the blanks to complete the sentences. Use Bank — words

Bank — words: presentation layer, data link, dialog control, layer, session protocol, network layer, token management, transport layer, data frames, Application protocols, OSI, sessions

1. The model is called the _____ Reference Model because it deals with systems that are open for communication with other systems.
2. Each _____ should perform a well-defined function.
3. The issue that arises in the _____ layer is how to keep a fast transmitter from drowning a slow receiver in data.
4. It accomplishes this task by having the sender break up the input data into _____, which are typically a few hundred or a few thousand bytes.
5. The transport layer also determines what type of service to provide to the _____, and, ultimately, to the users of the network.

6. The _____ controls how packets are routed from source to destination.
7. The basic function of the _____ is to accept data from above and pass these to the network layer, and ensure that the pieces all arrive correctly at the other end.
8. The session layer allows users on different machines to establish _____ between them.
9. The session layer provides users with a type of service, such as _____, in which is keeping track of whose turn it is to transmit data.
10. The _____ is preventing two parties from attempting the same critical operation at the same time.
11. _____ are used for file transfer, electronic mail, and network news.
12. The _____ is concerned with the syntax and semantics of the information transmitted.

Task 3. After studying the information about the OS reference model, arrange the layers and protocols inside the OS reference model in the correct order

Presentation layer, Transport protocol (layer), Application layer, Session protocol (layer), Physical layer, Internal subnet protocol

Task 4. Read the definition and indicate T — true and F — false

1. **Physical layer** — This layer does not deal with the setup of physical connection to the network and with transmission and reception of signals.
2. **Data link layer** — It forms frames from the packets that are received from network layer and gives it to physical layer. It also synchronizes the information, which is to be transmitted over the data.
3. **Network Layer** — It controls the operation of the network. The main aim of this layer is to delete packets from source. It routes the signal through different channels to the other end and acts as a network controller.
4. **Transport layer** — The main function of this layer is to take data from put it together, pass these data units to the physical layer, and make sure that all the pieces arrive correctly at the other end.
5. **Session Layer** — It's main aim is to break up, delete the interaction between communicating systems. The layer doesn't manage and synchronize the conversation between two different applications.
6. **Presentation Layer** — The primary goal of this layer is to take care that the data is sent in such a way that the receiver will understand the information (data) and will be able to use the data. Languages (syntax) can be different of the two communicating systems. Under this condition presentation layer plays a role translator.
7. **Application Layer** — Manipulation of data (information) in various ways is done in this layer, which enables user or software to get access to the network.

Task 7

Task 11. Match the words to their meanings

Words		Meanings	
1	Host-to-network Layer	a	It is an extension to the Internet Protocol and an error reporting protocol for TCP/IP messages.
2	Internet layer	b	This model is based on four layer model which is based on Protocols.
3	protocol stack	c	It is used with the IP for mapping an Internet Protocol address to a MAC address that is recognized in the local network specified.
4	TCP/IP Model	d	The state of being almost the same, or a particular way in which something is almost the same.
5	ICMP	e	This layer uses IP (Internet Protocol) to describe how packets are to be delivered.
6	similarities	f	The layer is the lowest layer of the TCP/IP model and is concerned with the physical transmission of data. It can be considered as the combination of physical layer and data link layer of the OSI model.

7	ARP	g	It is an implementation of a computer networking protocol suite.
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Task 12. Fill in the blanks to complete the sentences. Use Bank — words

Bank — words: protocol stack, IP layer, TELNET, TCP, DLL, RTP, FTP, ICMP, SMTP, UDP, DNS

- _____ describes how and what channels such as serial lines and classic Ethernet should do to meet the needs of this interconnect — free layer.
- The job of _____ is to permit hosts to inject packets into any network and have them travel independently to the destination (potentially on a different network).
- The main aspects of the _____ are the choice of the package route and the prevention of blockage of transport arteries.
- _____ is a reliable connection-oriented protocol that allows a byte stream originating on one machine to be delivered without error on any other machine in the internet.
- _____ is also widely used in one-time client-server requests and applications where speed is more important than accuracy, such as speech and video.
- _____ is a network Protocol for implementing a text-based terminal interface over a network.
- _____ is a widely used Protocol for file sharing over any network that supports TCP/IP.
- The _____ is used by the e-mail client program to send messages to the local e-mail server.
- _____ is an Internet service that puts IP addresses and fully qualified domain names in line with one another.
- _____ transfers the data in its header that is required to restore audio or video to the receiving host.
- A _____ refers to a group of protocols that are running concurrently that are employed for the implementation of network protocol package.

Task 14. Analyze the information in the unit and answer the questions.

Choose 2 correct variants for each question

- What are the main differences between TCP and UDP?**
 - TCP requires a pre-established connection, UDP connection is not required.
 - UDP cannot provide a higher data rate.
 - TCP guarantees delivery of data packets in unchanged form, sequence and lossless, UDP does not guarantee anything.
 - TCP is preferable for programs that play streaming video, video and telephony, network games.
- When you transfer a file between two computers, two confirmation strategies are possible. Specify them.**
 - The file can be divided into separate packages, the receipt of which is confirmed by the recipient individually and the receipt of the entire file is confirmed.
 - The file can be divided into separate packages, the receipt of which is confirmed by the recipient individually; the receipt of the entire file is not confirmed.
 - The receipt of each package is not confirmed, but the receipt of the entire file is confirmed.

- d. The receipt of each package is confirmed, but the receipt of the entire file is not confirmed.
3. **What is the reliability of the TCP Protocol?**
- TCP diagnoses errors
 - TCP does not send the data again
 - TCP cannot identify errors
 - If necessary, TCP sends the data again

Task 8

Task 1. Match the words to their meanings

Words		Meanings	
1	frequency range	a	To hold off action or process.
2	conductor	b	This occurs when there is an error in the formation of signals of a given shape at the transmitting end
3	interference	c	A Wired/Guided media has a metal foil or braided-mesh covering which encases each pair of insulated conductors.
4	structured cabling system	d	It is the reduction of signal strength without distorting its waveform.
5	crosstalk	e	This is the interval in the periodicity domain, bounded by the lower periodicity and the upper periodicity.
6	UTP	f	A type of wiring in which two conductors of a single circuit are twisted together for the purposes of canceling out electromagnetic interference (EMI) from external sources.
7	ground	g	A set of cable elements of a building intended for transmitting and receiving various types of signals, designed and installed in accordance with international and national standards.
8	twisted pair	h	The amount of data transmitted per unit of time.
9	STP	i	A Wired/Guided media which consists of two conductors usually copper, each with its own colour plastic insulator.
10	delay	j	It's the common point in an electrical or electronic circuit. All electrons flow toward the path of least potential or zero potential difference.
11	repeater	k	It is a material that transmits electrical currents, heat, or sound.
12	high-data-rate	l	A type of high-speed Internet connection using standard telephone wires.
13	attenuation	m	It's an object that increases a signal's strength, so it can travel greater distances without a loss in quality.
14	DSL	n	Undesired effect of one circuit on another circuit. It can occur when one line picks up some signals travelling down another line.

Task 2. Fill in the blanks to complete the sentences. Use Bank — words

Bank — words: interference, high-data-rates, repeater, conductor, twisted pair, delay, grounding, frequency range, attenuation, crosstalk

1. The instrument _____ covers the common bands for RF applications such as radio and television, mobile, wireless networks.
2. A _____ only works at the physical layer, it is not as intelligent as a bridge, gateway, or router.
3. In copper-wire cables, signal _____ increases as a transmission signal travel longer distances.
4. Installation of fiber optic cable routings under hardest environmental conditions and guarantee the transmission at _____.
5. On Unix-like operating systems, the sleep command is used to _____ for a specified amount of time.
6. Nowadays people use _____ cable, and hubs and switches to form networks in more of a star configuration.
7. Proper _____ is crucial for the electrical system.
8. The teleconferencing system can't handle that much _____.
9. Electric current flowing through any _____ creates electric and magnetic fields.
10. _____ is noise, lines that prevent a clear sound or picture from being received.

Match the words to their meaning

1	PVC	a	A protective covering around an electric cable.
2	solid wire	b	When referring to anything that holds a charge, capacity is the maximum amount of power, the device is capable of holding.
3	drawback	c	It is the transmission of wide bandwidth data over a high speed internet connection.
4	capacity	d	It's a term used to describe the process of physically connecting a component to a computer.
5	BroadBand	e	A type of connector used with coaxial Ethernet cable and meaning that it is put in then turned and locked in position.
6	BaseBand	f	A thermoplastic material, so it becomes softer when heated and hardens when cooled.
7	wrapping	g	Composed of an insulated wire that runs through the middle of each cable, a second wire that surrounds the insulation of the inner wire like a sheath, and the outer insulation which wraps the second wire.
8	BBU	h	Stands for Radio Guide, a USA specification for grades of transmission lines.
9	installation	i	A miniature quick connect/disconnect radio frequency connector used for coaxial cable.
10	BNC	j	A plastic that is used to cover and protect something.
11	BNC T connector	k	It consists of one piece of metal wire. It is useful for wiring breadboards.
12	sheath	l	The unit is a unit that processes baseband in telecomm systems.
13	RG	m	It refers to the original frequency range of a transmission signal before it is modulated. It can also refer to a type of data transmission in which digital or analog data is sent over a single non-multiplexed channel.
14	coaxial cable	n	A problem or disadvantage.

Task 9

Select 10 useful words and collocations to the topic from the text. Use them in sentences and questions of your own. Give definitions to the following words and word-combinations using an English-English dictionary. Translate them into Russian:

- a) predicament;
- b) crucial data;
- c) on-demand services;
- d) suspicious;
- e) security patches;
- f) interoperability;
- g) cybersecurity frameworks;
- h) risk assessment conduction;
- i) shared approach;
- j) replay attacks.

Translate the following sentences paying attention to the topic terminology.

- a) Cybersecurity and privacy risks are the primary concerns of the researchers and security specialists cited.
- b) This vulnerability is simply because the interconnectivity of networks in the Internet of Things brings along accessibility from anonymous and untrusted Internet requiring novel security solutions.
- c) With the ongoing security breaches which have compromised the privacy of users, the appetite of the consumers for poor security is now declining.
- d) These call for consideration of the accessible tools, techniques, and tactics which are related to the security of IoT.
- e) The consumers are required to trust the Internet of Things devices and the services are very secure from weaknesses, particularly as this technology continues becoming more passive and incorporated in our everyday lives.
- f) The nature of the interconnection of the IoT devices means if a device is poorly secured and connected it has the potential of affecting the security and the resilience on the Internet internationally.
- g) Information security is one of the significant vulnerable areas in the authentication of IoT due to the prevalence of applications which are risky due to their natural multiplicity of data collection in the IoT environment.
- h) One of the most prevalent attacks in the IoT is the man in the middle, where the third-party hijack communication channel is aimed at spoofing identities of the palpable nodes which are involved in network exchange.
- i) Cryptography is another essential aspect that has been used for many years to provide defense against security loopholes in many applications.
- j) The IoT devices support the collaboration with the stakeholders and help in understanding the business requirements and outcomes.

Task 10

AT IS IT LIKE TO BE A SOFTWARE ENGINEER?

I am fascinated by coding. It's everywhere! Every single one of the digital experiences we enjoy is the result of code. But honestly, I know almost nothing about how it works or how the people behind the code □ software engineers □ do what they do. To find out, I spoke with Lindsey Redd, who has coded for some of the coolest tech companies in the world.

Can you tell me a little bit about what your job entails? What does the day-to-day look like?

It can be different depending on the day. But usually, it starts with looking through what I have to do for the day. Then coding, of course. But there's a lot more to software engineering than coding. You code. You test. You deploy your

code. You monitor your code, and make sure things are working properly. But then, there can also be a lot of meetings around product development or new features that need to be built, and how we're going to build those features. I meet

with engineers a lot on the plan for implementation. There's also a lot of pair programming, or working together with another coder to solve problems.

Tell me more about pair programming. Is it just programming with another person on your team?

Pair programming is when you work with someone on your team on a that you two are solving together. There's

usually someone who's the "driver" and then someone who is in the "passenger seat." The driver is the one who's actually typing. But you're problem solving together. It's a very collaborative experience, which I like. I think I've

learned a lot doing that process. You tend to solve problems a bit better and faster when you're working with someone in that way.

If I wanted to become a software engineer, what are the most important skills that I should be developing right now?

Definitely building, testing, and maintaining software is the core skill set. Getting a job is a lot about developing those interview skills. There are a lot of resources for developing those skills, as well. I'd say a lot of the skills that you need to be a good software engineer but that people don't really talk about are the soft skills, like verbal and written communication, organization, and project management skills.

What do you love about software engineering?

It's the mix of teamwork, collaboration, pair programming and problem solving with the ability to do a lot of solo work and figure problems out on your own. I enjoy the process of coding and not knowing what's really going on, but

testing and working through an issue, Googling whatever I need to, and then getting to a solution. That feeling, that gratification of figuring out how to do something or solving a bug, is unmatched. I enjoy my teams. I enjoy working with people, and I enjoy doing my own thing a little bit. Software engineering definitely allows you to do both.

Exercise 1. Match each type of software engineer's work with its definition:

- | | |
|---------------------|---|
| 1. Coding | a) Process of running an application on a server or device |
| 2. Testing | b) Using various tools to ensure that an application is running at its peak efficiency after it's been deployed |
| 3. Deployment | c) Process of writing a computer program |
| 4. Monitoring | d) Reviewing the quality of software and risk of its failure before and after deployment |
| 5. Pair programming | e) A software development technique in which two programmers work together at one workstation |
| 6. Collaboration | f) Putting the project plan into action |
| 7. Implementation | g) Working together as a team on a project that is too big for one person |

Exercise 2. Match the words from the columns to create proper collocations (more than one correct match is possible for each word):

1. to work through	a. to solve problems faster
2. to maintain	b. a code
3. to figure out	c. a project
4. to enjoy	d. coding
5. to do	e. working with people
6. to deploy	f. software
7. to implement	g. your own thing
8. to tend	h. a solution
9. to find out	i. the answer
10. to be fascinated by	j. an issue

Exercise 3. Choose the correct answer(s) to the following questions:

- What is true about the day-to-day of a software engineer?
 - There are no meetings on the plan of implementation;
 - There is a lot more to it than coding;
 - Every day is the same;
 - There can be work together with another coder.
- What is true about pair programming?
 - The navigator/passenger is problem solving.

- b) The navigator/passenger is typing.
 - c) It allows you to learn.
 - d) You do it only when you can't solve a problem on your own.
3. According to the speaker, what skills should a software engineer have?
- a) Non-verbal communication;
 - b) Maintaining software;
 - c) Coding;
 - d) Organizational skills.
4. According to the speaker, what is software engineering a mix of?
- a) Teamwork and collaboration;
 - b) Collaboration and pair programming;
 - c) Collaboration and working on your own;
 - d) Teamwork and solo work.
5. What does the speaker enjoy about software engineering?
- a) Solving bugs;
 - b) Process of coding;
 - c) Working with people;
 - d) Creating problems.

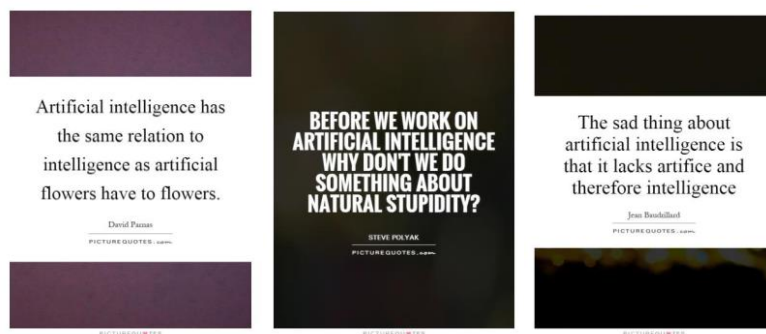
Task 11

In groups of three discuss the following quotations:

What quotations do you agree with?

How can you comment upon the quotations?

While discussing, give reasons, examples, details.



Pre-reading questions:

1. How would you define “intelligence”?
 2. Have you ever thought of computer programs as being “intelligent”?
 3. Do you think that computers or machines will ever be as intelligent as humans?
 4. Are you afraid of the nightmare scenario in which machines have control over people, possibly leading to the annihilation of the human race?
 5. Do you know the following abbreviations?
- a) AI b) IQ c) WW II

Read the answers and match them with the questions. One question can be seen in the interview as the example for you:

1. Isn't AI about simulating human intelligence?
2. What is the Turing test?
3. Don't some people say that AI is a bad idea?
4. What about IQ? Do computer programs have IQs?
5. What is artificial intelligence?
6. When did AI research start?
7. Does AI aim to put the human mind into the computer?
8. Yes, but what is intelligence?

9. What about other comparisons between human and computer intelligence?
10. Are computers the right kind of machine to be made intelligent?

Summary

This text, in the form of an interview, is written by Prof. John McCarthy of Stanford University, who is an authority in the field of AI and was the first to use this term. It covers the main ideas of AI and its differences from human intelligence as well as describing AI in the context of biology, psychology and even philosophy. In the interview Professor McCarthy answers basic questions about artificial intelligence.

Interviewer.

Professor. It is the science and engineering of making intelligent machines, especially intelligent computer programs. It is related to the similar task of using computers to understand human intelligence, but AI does not have to confine itself to methods that are biologically observable.

Int.

Prof. Intelligence is the computational part of the ability to achieve goals in the world. Varying kinds and degrees of intelligence occur in people, many animals and some machines.

Int.

Prof. Sometimes but not always or even usually. On the one hand, we can learn something about how to make machines solve problems by observing other people or just by observing our own methods. On the other hand, most work in AI involves studying the problems the world presents to intelligence rather than studying people or animals. AI researchers are free to use methods that are not observed in people or that involve much more computing than people can do.

Int.

Prof. No. IQ is based on the rates at which intelligence develops in children. It is the ratio of the age at which a child normally makes a certain score to the child's age. The scale is extended to adults in a suitable way. IQ correlates well with various measures of success or failure in life, but making computers that can score high on IQ tests would be weakly correlated with their usefulness. For example, the ability of a child to repeat back a long sequence of digits correlates well with other intellectual abilities, perhaps because it measures how much information the child can compute with at once. However, digit span is trivial for even extremely limited computers. However, some of the problems on IQ tests are useful challenges for AI.

Int.

Prof. Arthur R. Jensen, a leading researcher in human intelligence, suggests as a heuristic hypothesis that all normal humans have the same intellectual mechanisms and that differences in intelligence are related to quantitative biochemical and physiological conditions. I see them as speed, short term memory, and the ability to form accurate and retrievable long-term memories. Whether or not Jensen is right about human intelligence, the situation in AI today is the reverse. Computer programs have plenty of speed and memory but their abilities correspond to the intellectual mechanisms that program designers understand well enough to put in programs. Some abilities that children normally don't develop till they are teenagers may be in, and some abilities possessed by two-year olds are still out. The matter is further complicated by the fact that the cognitive sciences still have not succeeded in determining exactly what the human abilities are. Very likely the organization of the intellectual mechanisms for AI can usefully be different from that in people. Whenever people do better than computers on some task or computers use a lot of computation to do as well as people, this demonstrates that the program designers lack understanding of the intellectual mechanisms required to do the task efficiently.

Int.

Prof. After WW II, a number of people independently started to work on intelligent machines. The English mathematician Alan Turing may have been the first. He gave a lecture on it in 1947. He also may have been the first to decide that AI was best researched by programming computers rather than by building machines. By the late 1950s, there were many researchers on AI, and most of them were basing their work on programming computers.

Int.

Prof. Some researchers say they have that objective, but maybe they are using the phrase metaphorically. The human mind has a lot of peculiarities, and I'm not sure anyone is serious about imitating all of them.

Int.

Prof. Alan Turing's 1950 article *Computing Machinery and Intelligence* discussed conditions for considering a machine to be intelligent. He argued that if the machine could successfully pretend to be human to a knowledgeable observer then you certainly should consider it intelligent. This test would satisfy most people but not all philosophers. The observer could interact with the machine and a human by teletype (to avoid requiring that the machine imitate the appearance or voice of the person), and the human would try to persuade the observer that it was human and the machine would try to fool the observer. The Turing test is a one-sided test. A machine that passes the test should certainly be considered intelligent, but a machine could still be considered intelligent without knowing enough about humans to imitate a human. Daniel Dennett's book *Brainchildren* has an excellent discussion of the Turing test and the various partial Turing tests that have been implemented, i.e. with restrictions on the observer's knowledge of AI and the subject matter of questioning. It turns out that some people are easily led into believing that a rather dumb program is intelligent.

Int.

Prof. Computers can be programmed to simulate any kind of machine. Many researchers invented non-computer machines, hoping that they would be intelligent in different ways than the computer programs could be. However, they usually simulate their invented machines on a computer and come to doubt that the new machine is worth building. Because many billions of dollars have been spent in making computers faster and faster, another kind of machine would have to be very fast to perform better than a program on a computer simulating the machine.

Int. What about making a child machine that could improve by reading and by learning from experience?

Prof. This idea has been proposed many times, starting in the 1940s. Eventually, it will be made to work. However, AI programs haven't yet reached the level of being able to learn much of what a child learns from physical experience. Nor do present programs understand language well enough to learn much by reading.

Int.

Prof. The philosopher John Searle says that the idea of a non-biological machine being intelligent is incoherent. The philosopher Hubert Dreyfus says that AI is impossible. The computer scientist Joseph Weizenbaum says the idea is obscene, anti-human and immoral. Various people have said that since artificial intelligence hasn't reached human level by now, it must be impossible. Still other people are disappointed that companies they invested in went bankrupt.

Source: English for Computer Science Students: Complementary Course Book

Task 12

In groups of three discuss the following quotations:

What phrases do you find right?

Are there any quotations that you disagree?

Do you find some of the sayings funny? Why?

While discussing, give reasons, details, examples.





Scan the text “The Internet” and complete the following sentences:

1. Information sent over the Internet
2. Any two computers on the Internet
3. Nobody knows exactly
4. The Internet may provide
5. Commercial use of the network will greatly increase if
6. Routers are... .

The Internet, a global computer network, embracing millions of users all over the world, began in the United States in 1969 as a military experiment. It was designed to survive a nuclear war. Information sent over the Internet takes the shortest path available from one computer to another. Because of this, any two computers on the Internet will be able to stay in touch with each other as long as there is a single route between them. This technology is called packet switching. Owing to this technology, if some computers on the network are knocked out (by a nuclear explosion, for example), information will just route around them. One such packet-switching network already survived a war. It was the Iraqi computer network, which was not knocked out during the Gulf War.

Most of the Internet host computers are in the United States, while the rest are located in more than 100 other countries. Although the number of host computers can be counted fairly accurately, nobody knows exactly how many people use the Internet; there are millions, their number growing by thousands each month worldwide.

In many developing countries the Internet may provide business people with a reliable alternative to the expensive and unreliable telecommunication systems of these countries. Commercial users can communicate over the Internet with the rest of the world and do it very cheaply. When they send e-mail messages, they only have to pay for phone calls to their local service providers, not for calls across their countries or around the world. But who actually pays for sending e-mail messages over the Internet long distances, around the world? The answer is very simple: a user pays his/her service provider a monthly or hourly fee. Part of this fee goes towards its costs to connect to a larger service provider. And part of the fee got by the larger provider goes to cover its cost of running a worldwide network of wires and wireless stations.

But saving money is only the first step. If people see that they can make money from the Internet, commercial use of this network will drastically increase. For example, some western architecture companies and garment centers already transmit their basic designs and concepts over the Internet into China, where they are reworked and refined by skilled – but inexpensive – Chinese computer-aided-design specialists.

However, some problems remain. The most important is security. When you send an e-mail message to somebody, this message can travel through many different networks and computers. The data is constantly being directed towards its destination by special computers called routers. Because of this, it is possible to get into any of computers along the route, intercept and even change the data being sent over the Internet. In spite of the fact that there are many strong encoding programmes available, nearly all the information being sent over the Internet is transmitted without any form of encoding, i.e. “in the clear”. But when it becomes necessary to send important information over the network, these encoding programmes may be useful.

Source: <https://www.internetsociety.org/internet/history-internet>

Task 13

Skim the text. Why was Ivy Bean famous?

Friends

Research by a British anthropologist shows that the optimum number of friendships that the human brain can maintain is about 150. But that's in the real world. What happens on Facebook where the maximum number of 'friends' permitted is 5000? According to social networking statistics, the average Facebook user has 130 friends. Some people have a lot more.

Ivy Bean from Bradford in the north of England became

Facebook's oldest known user at the age of 102 in 2008. She quickly started making friends and became an online celebrity. When she maxed out her 5000 friend count on Facebook Ms. Bean joined the Twitter website and continued her social networking. At the time of her death in July 2010, she had 4,962 friends on Facebook and more than 56,000 followers (including the Prime Minister's wife) on Twitter. Ms. Bean's last tweet was July 6 2010. It read, "Going to have my lunch now will be back later."

Scan the text and find these numbers. What do the numbers refer to?

150 - the optimum number of friendships

130

2008

2010

5000

4962

56000

Social networking profile. Imagine you want to join FriendPage. Fill in your profile.

FriendPage profile. Basic information:

Name:

Age:

Gender

Location:

Hometown:

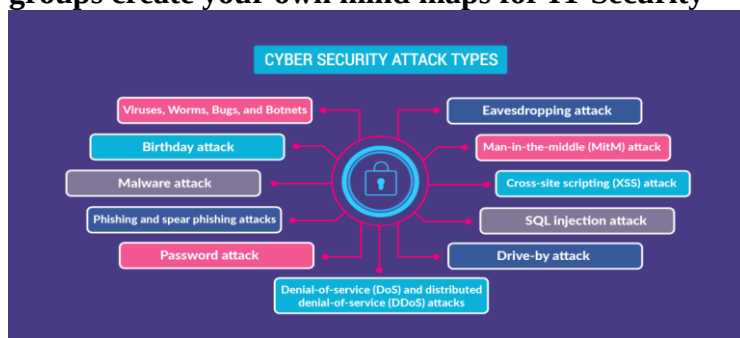
Interested in:

Personality:

Right now I feel:

Task 14

Study the following mind maps of IT Security. What are the main ideas of 2 schemes? In groups create your own mind maps for IT Security





Scan the text “Security” and match the following headings with the paragraphs of the text.

- A. The demands of users versus the need of data confidentiality and integrity;
- B. Responsibility for ITS;
- C. History of information security;
- D. Main objectives of ITS;
- E. ITS in the digital era.

1. Security is a basic human concept that has become more difficult to define and enforce in the Information Age. In primitive societies, security was limited to ensuring the safety of the group's members and protecting physical resources, like food and water. As society has grown more complex, the significance of sharing and securing the important resource of information has increased. Before the proliferation of modern communications, information security was limited to controlling physical access to oral or written communications. The importance of information security led societies to develop innovative ways of protecting their information. For example, the Roman Empire's military wrote sensitive messages on parchments that could be dissolved in water after they had been read. Military history provides another more recent example of the importance of information security. Decades after World War II ended, it was revealed that the Allies had gained an enormous advantage by deciphering both the German and Japanese encryption codes early in the conflict. Recent innovations in information technology, like the Internet, have made it possible to send vast quantities of data across the globe with ease. However, the challenge of controlling and protecting that information has grown exponentially now that data can be easily transmitted, stored, copied, manipulated, and destroyed.

2. Within a large organization information technology generally refers to laptop and desktop computers, servers, routers, and switches that form a computer network, although information technology also includes phones and voice mail systems and other electronic systems. A growing reliance on computers to work and communicate has made the control of computer networks an important part of information security. Unauthorized access to paper documents or phone conversations is still an information security concern, but the real challenge has become protecting the security of computer networks, especially when they are connected to the Internet. Most large organizations have their own local computer network, or intranet, that links their computers together to share resources and support the communications of employees and others with a legitimate need for access. Almost all of these networks are connected to the Internet and allow employees to go "online."

3. Information technology security is controlling access to sensitive electronic information so only those with a legitimate need to access it are allowed to do so. This seemingly simple task has become a very complex process with systems that need to be continually updated and processes that need to constantly be reviewed. There are three main objectives for information technology security: confidentiality, integrity, and availability of data. Confidentiality is protecting access to sensitive data from those who don't have a legitimate need to use it. Integrity is ensuring that information is accurate and reliable and cannot be modified in unexpected ways. The availability of data ensures that is readily available to those who need to use it.

4. Information technology security is often the challenge of balancing the demands of users versus the need for data confidentiality and integrity. For example, allowing employees to access a network from a remote location, like their home or a project site, can increase the value of the

network and efficiency of the employee. Unfortunately, remote access to a network also opens a number of vulnerabilities and creates difficult security challenges for a network administrator.

5. Information Security involves a Tradeoff between Security and Usability: There is no such thing as a totally secure system – except perhaps one that is entirely unusable by anyone! Corporate Information Security's goal is to provide an appropriate level of security, based on the value of an organization's information and its business needs. The more secure a system is, the more inconvenience legitimate users experience in accessing it.

Source: <https://www.zdnet.com/article/online-security-101-how-to-protect-your-privacy-from-hackers-spies-and-the-government/>

Scan the text and give the number of the paragraph which says about:

- A. organization of information technology security within large companies;
- B. main objectives of information technology security;
- C. basic concept of security;
- D. totally secure computer systems;
- E. legitimate need for access;
- F. balancing the demands of users versus the need for data confidentiality;
- G. availability of data;
- H. protecting the security of computer systems;
- I. origins of information technology security;
- J. local computer networks.

Which of the following statements expresses the main idea of the text? Give evidence for your choice?

- 1. Information technology security is simply the process of keeping information secure.
- 2. Protecting sensitive information and the security of computer networks is the main concern of ITS.
- 3. ITS provides appropriate level of security.

Define whether the following statements correspond to the content of the text (yes, no).

- 1. Security is a basic human concept that is easy to define.
- 2. Information security is limited to controlling physical access to oral or written information.
- 3. The requirements for controlling and protecting information have grown exponentially.
- 4. Control of computer networks is an important part of ITS.
- 5. Protecting the security of computer networks, especially when they are connected to the Internet, has become the real challenge.
- 6. Information technology security is controlling access to all electronic information.
- 7. There are three main objectives for ITS: confidentiality, integrity and availability of data.
- 8. Allowing employees to access a network from a remote location can decrease the number of vulnerability.
- 9. Information technology security is a responsibility only of those who are directly concerned with it.

Task 15

IV. Video

Pre-watching activity

Match the vocabulary with the correct definition.

Internet Thing	a. an object not precisely identifiable b. the world-wide interconnected computer networks based on standard Internet protocol suite
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Watching Activity

Check out the video of the TED talk “The future is here”. In this talk, Jordan Duffy, a serial entrepreneur and technology innovation expert, explores how the internet of things is changing our lives in ways we don't even recognise.

https://www.youtube.com/watch?v=mzy84Vb_Gxk



1. Answer the following questions using RED formula:

1. What is hardware? How is it used in IoT? What examples does the speaker give?
2. What is data? How is it used in IoT? What examples does the speaker give?
3. What is software? How is it used in IoT? What examples does the speaker give?
4. What is connectivity? How is it used in IoT? What examples does the speaker give?
5. What examples of smart things did the speaker give?
6. Why is IoT so needy now?
7. Why Barcelona is a smart city? Why is it so beneficial?

2. Give the definition of the terms Jordan Duffy used.

- ✓ Creativity
- ✓ Innovation
- ✓ Humanity

After Listening Activity

Discuss in pairs how you would answer the question that Jordan Duffy asks:

Once all our tasks are automated what do humans do every day.

Task 16

Read and translate the text

Future developments

A number of technologies are being developed to increase processing speed. Gallium arsenide chip, which will allow speed five to six times faster than silicon chips, should soon be commercially available. Chips whose switching devices operate in a vacuum – thus offering no resistance to the flow of electrons – might each contain billions of such devices. And researchers are now learning how to store information at the molecular level in the chemical bonds between atoms.

Optical disks, similar to the computer disks now used to record popular music, should offer continued huge increases in storage capacity. An optical disk today can store about 1,000 megabytes of data, which is more than sufficient to handle the contents of any multivolume encyclopedia. If present trends continue, entire libraries could soon be accessed electronically for little more than the cost of a few ordinary compact discs.

The culmination of these developments may be the optical computer, which would operate with light waves. Such a machine could boost computing power by several orders of magnitude. While much of the scientific community is skeptical that optical computing can be developed in less than a generation, if at all, it should be remembered that all great advances have met such doubts.

Nanotechnology, the science of creating and using materials or devices at molecular and atomic sizes, is going to represent a new technological revolution. These devices will fall in the range of 1nanometre, which is equal to one billionth of a metre, to 100 nanometres (nm).

Nanobots, robots formed from molecules or molecular components, will be used in medicine to control and diagnose diseases. For example, they will be injected and will move through blood vessels destroying cholesterol molecules or cancer.

Nanocomputers, molecule-sized computers, may have the power of 100 workstations but only be the size of a grain of sand. There will be two main types of molecular computers:

Quantum computers, based on quantum mechanics, may be millions of times faster than current computers. They will be so fast because they will be able to examine all possible answers to a query at the same time. This capability is made possible by qubits, quantum bits, which can be 0 or 1, or something in between, simultaneously.

DNA computers will use DNA biochips to perform the same functions as silicon microchips do today but at a much faster speed.

The relationship between people and computers will be closer.

Computers will be embedded, or hidden, in a variety of items, for example, we'll have wearable computers that will be embedded in a belt or a piece of jewellery, etc.

Computer chips can be injected under the skin: RFID, radio-frequency identification tags, might be used to track or identify people or to store information, such as medical data, although there are concerns about privacy and personal safety.

User interfaces, the systems that, facilitate communication between people and computers, will resemble human communication. There will be gesture interfaces based on facial-hand recognition systems.

1. Выпишите новые слова в свой словарь и, пользуясь их транскрипцией, произнесите их вслух.

2. Прочитайте первый абзац вслух.

3. Переведите второй абзац письменно.

4. Ответьте на вопросы:

– какую новую информацию вы получили из прочитанного текста?

– какие из описанных в тексте будущих достижений в области информационных технологий производят на вас наибольшее впечатление?

5. Приготовьте 2–3 вопроса к прочитанному тексту.

6. (Работа в парах). На занятии задайте партнеру подготовленный дома вопрос и выслушайте его ответ; поменяйтесь ролями.

Task 17

Find the answers to these questions in the text below.

1. What is the Internet?

2. When was the first large-scale use of computer-to-computer transfer of information implemented?

3. What are the dangers that computers bring to modern society?

4. How can people avoid information overload?

«Surfing the Net»

What is more impressive than the pyramids, more beautiful than Michelangelo's David and more important to mankind than the wondrous inventions of the Industrial Revolution? To the converted, there can be only one answer: the Internet that undisciplined radical electronic communications network that is shaping our universe. Multimedia, the electronic publishing revolution, is entering every area of our lives — college, work and home. This new digital technology combines texts, video, sound and graphics to produce interactive language learning, football, music, movies, cookery and anything else you might be interested in.

The industrial age has matured into the information age; wherein the means to access, manipulate, and use information has become crucial to success and power. The electronic superhighway provides an entry to libraries, research institutions, databases, art galleries, census bureaus, etc. For those of us interested in intercultural communications Cyberspace is a universal

community, with instant access not only to information anywhere, but also to friends old and new around the globe.

The Internet is an amorphous global network of thousands of linked computers that pass information back and forth. While the Internet has no government, no owners, no time, no place, no country, it definitely has a culture, which frequently approaches anarchy; and it has a language, which is more or less English. People who interact in an Internet environment know how addresses are formed, how to use e-mail, ftp, Usenet News, Telnet, and other software tools.

Large-scale use of computer-to-computer transfer of information was implemented by the US military in the late 60s and early 70s — part of the superpower competition of the cold war and the arms race. The US military created an electronic network (Arpanet) to use computers for handling the transfer of large amounts of sensitive data over long distances at incredible speed. Computer-to-computer virtual connections, using satellites and fiber optics, have distinct advantages over telephone or radio communications in the event of a nuclear attack. Mathematicians and scientists (and their universities) have been linked and electronically exchanging information over the Internet since the mid-70s.

Now the Internet has become commercialized with private and public companies offering access to it. The Internet is being expanded and improved so that every home, every school, every institution can be linked to share data, information, music, video and other resources. If you have a computer or a computer terminal, some kind of connection (probably, modem and telephone line) to the Internet, and some kind of Internet service provider, you can participate in electronic communication and become a citizen of the global village.

Information technology is a good vehicle for the argument. Some scientists remind us that voluminous information does not necessarily lead to sound thinking. There are many genuine dangers that computers bring to modern society. Data glut obscures basic questions and may even hinder rather than enhance our productivity. Edutainment software and computer games degrade the literacy of children. On the other hand, only a few use PCs on network to share information and ideas. In most cases IT is used to speed routine tasks, to automate manual processes rather than to change work patterns and business practices. Most managers use their PCs to edit documents — not a good use of their time when they could be dreaming up creative applications. It is time to evaluate anew the role of science and technology in the affairs of the human species.

So, if you are riding on the information highway, you should take steps to cope with information overload. The gift of boundless information is causing a new kind of stress known alternately as technostress, information overload or Information Fatigue Syndrome. Some experts say that we don't get anywhere near the data it takes to overload our neurons. According to some estimates, our mind is capable of processing and analyzing many gigabytes of data per second — a lot more data than any of today's supercomputers can process and act on in real time. We feel overloaded by the quantity of information because we are getting it unfiltered. We should filter out the junk and turn data into shapes that make sense to us. Stress in moderation is good: it drives us to achieve, stimulates our creativity and is the force behind social and technological breakthroughs. Stress is revealing how humans are in some ways more primitive than the technology they have created. Meditation, muscular relaxation, aerobics, jogging, yoga can be effective stress relievers, but no technique is universal: experiment and find the one that best works for you.

The cornerstone of an economy is land, labor, capital and entrepreneurial spirit. That traditional definition is now being challenged. Today you find a fifth key economic element: information dominant. As we evolve from an industrial to an information society, our jobs are changing from physical to mental labor. Just as people moved physically from farms to factories in the Industrial age, so today people are shifting muscle power to brain power in a new, computer-based, globally linked by the Internet society.

6. Примеры оценочных средств для проведения промежуточной аттестации

6.1 Примеры тестовых заданий

Вариант 1

Выберите правильный вариант:

1. Shea secretary.
a) is b)are c)have d)were
2.swine is big.
a)these b)those c)this d)its
3. He....taking his dog for a walk.
a)were b)is c)have d)shall be
4. We know their names, but they don't know
a)us b)our c)ours d) we
5. Are these coats?
a)yours b)your c)you d) us
6. Gina gave the wrong phone number just for fun.
a)he b)him c)his d) he's
7. We have a large garden. Do you know where garden is?
a)us b)our c)ours d) our's
8. I like that camera. I am going to buy
a)she b)it c)its d) he
9. This is not my pencil; is blue.
a)my b)mine c)me d)mines
10. My room is bigger than hers, but is nicer.
a)she b)her c)hers d)her's
11. Will you give me his telephone number? I don't know
a)him b)its c)it d)hers
12. I gave her my address and she gave hers.
a)my b)mine c)me d)I
13. I don't like dogs. I am afraid of
a)they b)them c)their d)theirs

Преобразуйте предложения, употребляя оборот *there is / are*:

- a) 1. This city has many monuments. 2. Our town has no theatres. 3. This family has two children. 4. Our group has many good pupils. 5. Every week has seven days and every year has twelve months. 6. She has a lot of English books in her library.
- b) 1. The dog is in the room. 2. The children are in the yard. 3. The students are in the laboratory. 4. The car is near the house. 5. The bench was under the tree. 6. A lot of people will be at the stadium tomorrow.

Употребите глаголы *to be* или *to have* в нужной форме:

1. There is no school in this village and the children go to the school which ... two miles away.
 2. How old ... you? I ... 17.
 3. ... you English lessons twice a week? – Yes, we ...
 4. I ... no time to help you yesterday. I ... very sorry about it.
 5. We ... a conference tomorrow. So I ... busy with my report today.
 6. My sister ... a second-year student of the Law Faculty.
 7. What ... you fond of? My hobby ... drawing.
 8. Will you ... any lectures tomorrow?
 9. Physics ... my favorite subject at school.
 10. He ... a lot of trouble with his car yesterday.
 11. My grandfather ... short grey hair but my grandmother's hair ... long and thick.
- Your glasses ... on the table.

Вариант 2

Выберите правильный вариант:

1. The comes everyday.
a)postman b)postmen c) postmans d)postmens
2. There are a lot of in the forest .
a) deer b)deers c)a deer d)the deers
3.play in the yard.
a)the child b)a child c)children d)childrens
4. The Browns are my
a)neighbors b)neighbor c)a neighbor d)the neighbor
5. Myworks at school.
a)sisters b)the sisters c)the sister d)sister
6.speak English well.
a)student b)students c)he d)she
7. We work five ... a week.
a)day b)a day c)the day d)days
8. Mylives not far from her.
a)mothers' friend b)mother friend's c)mother friends' d)mother's friend
9. Ouris light.
a)friend's rooms b)friends' room c)friend's room
10.is not elected every four years.
a) Britain's Queen b)Britains' Queen c)Britain Queen's d) Britain Queens'
11. Prime Minister is the....
a)Parliament's the head b)head's Parliament c)Parliament's head d)Parliament head
12.was moved to Moscow.
a) Russias' capital b)Russia's capital c)Russia capital's d)Russia capitals'
13. Thewill arrive tomorrow.
a)country's delegations b)country's delegation c)delegation's country d)delegations' country
14. My are at home.
a)children's brother b)brother's childrens c)brother's child d)brother's children
15. He received his
a)friends' letter b)friend's letter's c)letter's friend d) friend letters
16. Our....is brown.
a)teachers' tables b)table's teacher c)teacher's table d) table's teachers
17. My..... is new.
a)mothers' umbrellas b)mother's umbrella c)umbrella's mother d)umbrellas' mother
18. The interesting thing about is all the roads that they built in Britain.
a) Romans b) a Romans c) the Romans d) Romen

Употребите глаголы, данные в скобках, в Present Indefinite:

1. We (read) the newspaper in class every day.
2. He always (prepare) his homework carefully.
3. We always (play) tennis on Saturdays.
4. She (speak) several foreign languages.
5. The children (play) in the park every afternoon.
6. Helen (work) very hard.
7. They (take) a lot of trips together.
8. We always (travel) by car.
9. I (eat) lunch in the cafeteria every day.

Вариант 3

1. This man has dark

- A) heads B) head C) hairs D) hair
2. and a
- A) beard B) barber C) moustaches D) facehair
3. He is a jacket
- A) wearing B) carrying C) having D) holding
4. and he is a piece of paper.
- A) wearing B) holding C) having D) getting
5. He is sitting at his
- A) chair B) desk C) office D) room
6. - perhaps he is
- A) work B) at work C) business D) on job
7. You arrive at a party at 8 p.m. What do you say?
- A) Goodnight B) Good-bye C) Good evening D) Good afternoon
8. Someone offers you a drink. You don't want it. What do you say?
- A) Thank you B) Please C) No, thank you D) No, please
9. Henderson going to work.
- A) likes not B) don't like C) doesn't like D) not like**
10. early in the morning?
- A) Does he get up B) Gets he up C) Do he get up D) Get he up
11. He to drive a car.
- A) am learning B) learning C) is learning D) are learning
12. A train is a bus.
- A) more quickly B) quickly C) quicker than D) more quick
13. He swim very well.
- A) not can B) cannot C) doesn't can D) don't can
14. the bus to work.
- A) Always Roberts catches B) Roberts always catches C) Roberts catches always D) Roberts does always
15. Peter works in London.
- A) He goes there by train **B) He there goes by train C) He goes by train here D) There goes he by train**
16. TV last night.
- A) Did he watch B) Watched he C) Did he watched D) Does he watch**
17. I spoke slowly, but he understand me.
- A) canned not B) didn't can C) didn't could D) could not**
18. He made last year.
- A) many money B) much money C) a lot of money D) lots money**
19. I asked him
- A) to not go away B) to go not away C) not to go away D) go not away**
20. He used to live London.
- A) on B) in C) to D) at
21. James to him on the phone.
- A) spoked B) speaked C) spoke D) spoken**
22. " Quiet, please – I"
- A) am doing a test! B) do a test! C) doing a test! D) does a test!**
23. I won't go to Cambridge if it tomorrow.
- A) rain B) would rain C) rains D) raining**
24. While he to London he saw an accident.
- A) was driving B) drives C) drove D) had driven**
25. Millions of cigarettes every year.
- A) is smoke B) are smoking C) are smoked D) are smoke**
26. He has a experience in marketing in Europe.

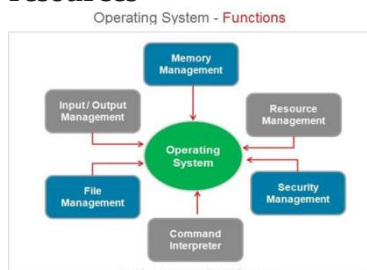
- A) grand B) wide C) large D) great
27. I remember him in London.
- A) of meeting B) to meet C) to meeting D) meeting
28. But I saw him in Frankfurt
- A) 3 years ago B) for 3 years C) before 3 years D) since 3 years
29. Could you look the blackboard and read what is on it?
- A) to B) on C) for D) at
30. Smith went abroad last year. abroad before.
- A) He had never been B) He had been never C) He never went D) He went never
31. The last Olympic Games in Athens.
- A) were held B) was holded C) were held D) were hold
32. He took cheese.
- A) all of B) all C) the all D) all of the
33. The committee held a last week.
- A) meeting B) gathering C) session D) sitting
34. I the Prime Minister's speech very carefully.
- A) heard to B) heard C) listened to D) overheard
35. He would have known that, if he the meeting.
- A) had attended B) would have attended C) has attended D) would attend
36. Would you mind the door?
- A) open B) to open C) opening D) to opening
37. In August he for us for 25 years.
- A) will have worked B) will work C) is going to work D) will be working
38. since I came back to the office?
- A) Did Robinson telephone B) Was Robinson telephoning C) telephoned Robinson D) Has Robinson telephoned
39. He speaks English very well he's only 12.
- A) whereas B) despite C) in spite D) although
40. "Don't do that," I said. I him not to do that.
- A) talked B) told C) spoke D) said
41. He never takes risks. He's a very man.
- A) mindful B) anxious C) attentive D) cautious
42. I'd like to put a suggestion, if I may.
- A) forward B) over C) across D) through
43. I this test for at least half an hour now.
- A) do B) am doing C) have done D) have been doing
44. I'll speak to him when he
- A) will arrive B) is arriving C) arrives D) would arrive
45. "Can you come tomorrow?" He asked tomorrow.
- A) if I come B) that I come C) if I could come D) that I can come
46. He hasn't come again today. If he doesn't come, what to do tomorrow.
- A) he wouldn't know B) he didn't know C) he will not have known D) he won't know

Task 1

Read and translate Active Vocabulary

1. assembly language
2. biometric authentication
3. boot, v
4. bug/error, n
5. bus, n
6. compatible, adj
7. compile, v
8. computer accessories
9. CPU (Central Processing Unit)
10. crash, v
11. daisy chain, v
12. decode, v
13. dongle, n
14. emulation software
15. end user
16. enhance, v
17. execute, v
18. extend, v
19. external modem/microphone/
20. feature, n
21. fingerprint readers
22. firmware, n
23. gamepad, n
24. GPU (Graphics Processing Unit)
25. HDD (Hard Disk Drive)
26. high-end visuals
27. input devices
28. install, v
29. integrated chipset
30. integrated peripherals
31. joystick, n
32. jumper/switch, n
33. light pen
34. motherboard, n
35. open source software
36. output devices
37. patch, n
38. plug and play technology
39. plug in, v
40. portable hard disk drive
41. proprietary software
42. RAM (Random Access Memory)
43. release version
44. resource-intensive software
45. retina scanners
46. ROM (Read Only Memory)
47. speakers, n
48. SSD (Solid State Drive)
49. storage devices
50. storage, n
51. stylus, n
52. supply, v
53. to run/to launch/to execute, v
54. touchpad, n
55. trackball, n
56. usability, n
57. USB-based flash drive
58. volatile memory

Explain the functions of operating systems. Use the information from the text and Internet resources



Task 2

Read the text and insert the words and word combinations into it

Process scheduling, response time, intermediate, frequency, kernel, allocated, booting, unauthorized access, log

Operating System and its functions

An operating system is a generic term for the multitasking software layer that helps the user to

do the tasks. Hardware and software are managed by OS. The OS acts as an 1 _____ between hardware and input, output and memory allocation functions. OS manages input devices, output devices, storage devices, and network devices.

The main components of OS are the 2 _____, user interface, and application programming interface. Basic control is provided by the kernel to the devices. The user interface helps in user interaction with the system. The code is written by application developers using the application programming interface.

Operating System performs many functions.

1. Security is provided by OS to the user data and prevents 3 _____. Data can be protected by giving the password to the files. When an unknown user checks the files, OS asks for the password and hence the data is protected.
2. System performance is boosted with the help of the OS. It monitors the 4 _____ taken by the system after the service request. If there is any unusual variation in the time, OS monitors the system performance and brings the issue into the user's notice for the user to bring the necessary changes.
3. Various applications and the number of users doing the tasks are accounted for by OS. This helps to know the number of users and the 5 _____ of application usage. Hence storage can be allocated to the system for those applications that have more usage. This helps to track the user and also various tasks that take up the storage of the system.
4. The operating system shows some errors due to the changes in the hardware and these errors are logged in the OS. This 6 _____ helps the user to identify the errors and to make necessary changes in the system. This prevents the malfunctioning of the computing device.
5. The main memory is managed by OS. OS tracks the main memory usage by each application. Also, OS decides which memory should be 7 _____ to which program and how much memory should be allocated and how many users must be given access to check the memory status.
6. OS does the 8 _____. It decides the time of each process assigned to the processor and the order in which the processor is accessed. It also tracks the status of all the processes. This program is done by the traffic controller.
7. OS does device management easily. Device communication is carried out with the help of drivers. The devices connected to the system are tracked and monitored well. A program is made responsible for the devices connected which are called input/output controller. The access to the device by the programs and the time duration is decided by OS.
8. OS organizes the file system into directories so that the files can be easily searched and used whenever needed. This helps the user to check the files and provide details of the files by checking the logs and the time duration. OS is also called the file system due to the file management provided by OS.
9. OS checks whether the system is ready to work. If not, the system is rebooted and OS makes the system work. This is done by shutting down all the applications so that the application that uses most storage is closed. 9 _____ also helps to install and start newly installed software.

Source: <https://www.english4it.com/module/core/unit/3/reading>

Answer the questions to the text

1. What is an operating system?
2. What does an operating system manage?
3. What are the main components of an operating system?
4. How does an operating system protect a computer?
5. How can an operating system increase system performance?
6. What is a log file? What can it help to a user?
7. What is the purpose of the traffic controller?
8. What happens when the system is being rebooted?

Task 3

Vocabulary Match

1. **Topology** - a) A central node (hub/switch) connects all other nodes.
2. **Bus** - b) Every node is connected to every other node.
3. **Star** - c) The physical or logical layout of a network.
4. **Mesh** - d) Nodes are connected in a closed loop.
5. **Ring** - e) All nodes are connected to a single central cable.

Reading Comprehension

Read the text and decide if the statements are True or False.

"A **star topology** is the most common LAN topology. It consists of a central device, such as a switch or hub, to which all workstations are directly connected. If one cable fails, only that node goes down. However, if the central switch fails, the entire network fails. It is easier to expand than a bus topology."

1. Star topology is rare in LANs. (T/F)
2. All devices in a star network connect to a central hub. (T/F)
3. If one cable breaks, the whole network stops working. (T/F)
4. Star networks are easy to expand. (T/F)

Translation and Grammar

Переведите предложения на английский язык, используя термины: cabling, backbone, node, fault-tolerant.

1. Физическая топология описывает, как устройства соединены кабелями.
2. Ячеистая топология является наиболее отказоустойчивой.
3. В топологии «шина» используется один центральный кабель.

Technical Description

Посмотрите на описание ниже и назовите тип топологии.

1. "Devices are connected in a daisy chain. Data travels in one direction." -> _____
2. "Used in WANs, provides high redundancy." -> _____
3. "Easy to install, but if the main cable breaks, the network fails." -> _____

Writing (Письменное задание)

Write a short paragraph (50-70 words) comparing Star and Bus topologies in English.

- Use phrases: ...is better than..., ...consists of..., ...more reliable..., ...cheaper....

Task 4

1. **What means OSI Reference Model?**
 - a. It is a network model where peer-to-peer communications are divided into seven layers. Each layer performs a specific task or tasks and builds upon the preceding layer until the communications are complete.
 - b. A formal set of format, timing, sequencing, and error control rules for transferring files to and from a remote computer system.
 - c. It is a set of rules (protocols) governing communications among all computers on the Internet.
2. **What means TCP/IP Model?**
 - a. It is a network model where each layer performs a specific task or tasks and builds upon the preceding layer until the communications are complete.
 - b. A formal set of format, timing, sequencing, and error control rules for transferring files to and from a remote computer system.
 - c. It is a set of rules (protocols) governing communications among all computers on the Internet.
3. **What does allow users can access files on a remote computer and manage them?**
 - a. PPP
 - b. FTAM
 - c. PSTN
4. **What is a protocol that governs the exchange of electronic mail between message transfer agents?**
 - a. SMTP
 - b. DNS
 - c. FTP
5. **How many layers has OSI Reference Model?**
 - a. 7
 - b. 4
 - c. 6
6. **How many layers has TCP/IP Model?**
 - a. 7
 - b. 4
 - c. 6
7. **What Physical layer is responsible for?**
 - a. It is responsible for transmitting data across a link.
 - b. It is responsible for the electrical, mechanical, and timing across the link.
 - c. It is responsible for routing information through the network and allowing systems to communicate.
8. **What Data link layer is responsible for?**
 - a. It is responsible for the electrical, mechanical, and timing across the link.
 - b. It is responsible for routing information through the network and allowing systems to communicate.
 - c. It is responsible for transmitting data across a link.
9. **What Network layer is responsible for?**
 - a. It is responsible for the electrical, mechanical, and timing across the link.
 - b. It is responsible for routing information through the network and allowing systems to communicate.
 - c. It is responsible for transmitting data across a link.
10. **What Transport layer is responsible for?**
 - a. It is responsible for transferring information between endpoints on the network and deals with errors, such as lost or duplicate packets.
 - b. It is responsible for managing a session between two applications.
 - c. It is responsible for the data formatting and display, allowing for compatibility.
11. **What Session layer is responsible for?**
 - a. It is responsible for transferring information between endpoints on the network and deals with errors, such as lost or duplicate packets.
 - b. It is responsible for managing a session between two applications.
 - c. It is responsible for the data formatting and display, allowing for compatibility.
12. **What Presentation layer is responsible for?**
 - a. It is responsible for transferring information between endpoints on the network and deals with errors, such as lost or duplicate packets.
 - b. It is responsible for managing a session between two applications.
 - c. It is responsible for the data formatting and display, allowing for compatibility.
13. **What Application layer is responsible for?**
 - a. It is responsible for the data formatting and display, allowing for compatibility.

- b. It is responsible for managing a session between two applications.
- c. It is responsible for user interaction.
- 14. **Which of the listed levels is not the TCP/IP Reference Model level?**
 - a. Application layer
 - b. Presentation layer
 - c. Transport layer
- 15. **Which of the listed levels is not the OSI Model level?**
 - a. Session Layer
 - b. Network Layer
 - c. Internet Layer
- 16. **What is the lowest layer of the OSI reference model?**
 - a. Physical layer
 - b. Network Layer
 - c. Transport layer
- 17. **What is the highest layer of the OSI reference model?**
 - a. Presentation layer
 - b. Application layer
 - c. Transport layer
- 18. **What layer defines the rate of transmission data of OSI Reference Model?**
 - a. Session Layer
 - b. Transport layer
 - c. Physical layer
- 19. **What means frames?**
 - a. They are the streams of bits received from the network layer into manageable data units.
 - b. The memory area used for temporary storage of information.
 - c. This is a mathematical model for data types, where the data type is determined by the behavior from the point of view of the data user.
- 20. **What is the meaning of TCP in Russian?**
 - a. Протокол Пользовательских Дейтограмм
 - b. Протокол Управления Передачей
 - c. Протокол Переноса Файлов
- 21. **What connection is used as a communication link between two devices?**
 - a. PPP
 - b. ARP
 - c. Access Point
- 22. **What protocol consists of a set of format, timing, sequencing, and error control rules for transferring files to and from a remote computer system?**
 - a. TCP
 - b. FTAM
 - c. TFTP
- 23. **What is the meaning of TELNET in Russian?**
 - a. Протокол реального времени для передачи мультимедиа
 - b. Специальный коммуникационный протокол
 - c. Протокол управления передачей

Task 5

Task 10. Fill in the blanks to complete the sentences. Use Bank — words
Bank — words: PVC, installation, drawbacks, connector, capacity,
wrapping, solid wire, coaxial cable, BBU, sheath

1. Cable TV channels and internet services are usually transmitted to a home or business via _____.
2. The cable is a copper wire with a heavy plastic _____.
3. You will receive a message confirming correct _____ of the printer.
4. The plastic _____ can be considered a simple protection for fragile produce.
5. This stylish, compact portable USB drive now features maximum _____ for all the chapters of your digital life.
6. Every strategic choice has its benefits and _____.
7. Encased within that, approximately 14 inches of _____ connected to a microprocessor.
8. _____ material thanks to its special components is inflammable and incombustible.
9. _____ is a small device inside a smartphone or tablet that controls the way radio signals are received and transmitted.
10. Now just plug your USB stick into some free USB _____ and reboot the computer.

Task 11. Read the definition and indicate T — true and F — false

1. Coaxial cable was widely used in analog telephone networks, where a single coaxial network could carry 50,000 voice signals.
2. In the traditional cable TV network, the entire network used RG-59 coaxial cable.
3. The 10Base-2, or Thin Ethernet, uses RG-58 coaxial cable with BNC connectors for digital transmission in early Ethernet LANs.
4. Not every coaxial cable defined by the RG rating is adapted for a special function.
5. There are three types of Coaxial cables: BaseBand, BroadBand and Bayonet Neill-Concelman.

6. Advantage of coaxial cable is single cable failure can fail the entire network.
7. Advantage of coaxial cable is transmits digital signals at a very high rate of 10Mbps.
8. Disadvantage of coaxial cable is much higher noise immunity.

Task 6

Find definitions and/or synonyms in English for the following:

- a) implementation;
 - b) configuration;
 - c) cloud service deployment;
 - d) a public cloud provider;
 - e) IT assets.
- ☐ *Give the Russian for the following:*
- a) to host resources;
 - b) to assess incompatibility;
 - c) internal users and external users;
 - d) insurance and/or operating loss budgets;
 - e) to assign privileges;

-) to pose security challenges;
- g) risk assessment;
- h) to proceed with;
- i) to outsource;
- j) to incorporate;
- k) cloud-based solutions;
- l) to gain understanding.

☐ *Select 10 useful words and collocations to the topic from the text (other than in the previous assignments). Use them in sentences and questions of your own.*

☐ *Translate the following sentences paying attention to the topic terminology.*

- a) If the cloud provider's software and/or hardware have inherent security flaws or operational weaknesses, attackers can exploit these vulnerabilities to impair the integrity, confidentiality, and/or availability of cloud provider IT resources and cloud consumer IT resources hosted by the cloud provider.
- b) Cloud consumers need to carefully examine contracts and SLAs put forth by cloud providers to ensure that security policies, and other relevant guarantees, are satisfactory when it comes to asset security.
- c) When assessing the potential impacts and challenges pertaining to cloud adoption, cloud consumers are encouraged to perform a formal risk assessment as part of a risk management strategy.
- d) Liability, indemnity, and blame for potential security breaches need to be clearly defined and mutually understood in the legal agreements signed by cloud consumers and cloud providers.
- e) Given that the cloud provider is not concerned with ETelReg compliance, this could easily result in monetary penalties being assessed to ATN.
- f) Based on the results of the risk assessment, ATN decides not to proceed with its cloud migration plan.

Task 7

Exercise 1. Are you good at cybersecurity? Check how familiar you are with various types of malware. Match each type of malware with its definition, then say how you can prevent this type of malware from infecting your computer.

**malware* ['mælwɛə(r)] = *malicious software* (вредоносное ПО)

ransom [ræns(ə)m] – выкуп

1. Ransomware



a) It disguises itself as legitimate software with the purpose of tricking you into executing it on your computer.

2. Adware



b) It is a software program that performs an automated task without requiring any interaction. A computer with this infection can spread it to other devices, creating a network of machines which can then be controlled and used to launch massive attacks by hackers, often without the device owner being aware of its role in the attack.

3. Bot



c) It encrypts your files and blocks access to them until the hacker is paid to release them. If the money isn't paid by a deadline, the hacker will threaten to delete the data or expose it.

4. Spyware



d) It can spread itself to other devices or systems, but it does not infect other programs. It does not require a host program in order to run or self-replicate.

5. Virus



e) It is a self-replicating program which usually requires some action on the part of the user to spread to other programs or systems.

6. Trojan



f) It is a program causing unwanted or malicious advertising to continually pop up on your screen.

7. Worm



g) It is used to monitor the activities of users and to collect user's information such as habits, browsing history, and personal identification information.

Exercise 2. The paragraphs in the text are mixed up. In the space provided, number all paragraphs, putting them in the correct order.

SOCIAL ENGINEERING: A HACKING STORY

() Now that George has Patti's trust, he tells her that he's been working with Suzy on finding a new server for the clinic. He doesn't know if they have a server or if they use an electronic medical record (EMR). However, if they don't, he can spin a story about how Suzy is looking to get a server to support an EMR. Social engineers are con artists. They can spin a story until they get what they want or hit a roadblock and move on to an easier target.

() Social engineers are experts at reading and manipulating people. They rely on trickery, wit, and charm to break into otherwise secure systems. They exploit the weakest link in the security chain: humans. Social engineering is a security threat healthcare staff may be least familiar with. So, what does it look like? How do social engineers manipulate people and gain access to secure systems? Let's look at an example of how social engineering might play out.

() Suzy, a clinic manager, lists her workplace on her personal Facebook page. She hasn't enabled privacy features, so her personal profile is visible to the public. She hasn't given a second thought to the connection between her public profile and her clinic.

() We're all familiar with what a technical hacker is. They sit behind a computer somewhere planning their strike on an unsuspecting healthcare company. Healthcare is a prime target for technical hackers. However, a more subtle threat exists: social engineering.

() George calls the clinic, and Patti answers. He asks to speak to Suzy. Patti replies that she is away from the clinic and asks if she can be of any help. George laughs, pretending he forgot, and tells Patti he's jealous that Suzy's in the Bahamas while they're stuck at work. His "insider" information and familiar way of speaking causes Patti to trust George.

() This can happen to your organization, even if you have policies and procedures in place. As organizations ramp up technical security, hackers are exploiting humans instead. Social engineering is difficult to detect, as social engineers know how to manipulate perceptions.

() Patti tells George they have a server in the office. He asks her to grab some information that he forgot to get from Suzy. Patti places George on hold and collects the information he needs to remotely access the server. Now that he has access to the server, George can infect it with malware and steal the clinic's information.

() George is a social engineer. He knows that medical personally identifiable information will fetch a fantastic price. So, George is on the hunt for a healthcare employee to exploit. He sees on Suzy's profile that she works at a medical clinic. He also sees Suzy's post that she's on vacation in the Bahamas.

() This isn't only a story. It recently happened in a health clinic. The clinic had a solid contingency plan in place and was able to recover all but a day's worth of data. However, the clinic lost thousands of dollars of lost work and lost medical data that could cause patient harm. Furthermore, the clinic also had to bear the cost of a new server and data restoration.

Post-reading task: answer the following questions.

1. What is the difference between technical hackers and social engineers?
2. Why is social engineering often used by criminals?
3. What did George use to be successful in the data theft?
4. How could Patti have acted to prevent the hack?
5. Do you think IT students should learn about social engineering? Why?

Task 8

SYSTEM ADMINISTRATOR

Software breaks. Hardware breaks. We need someone to fix those things. That someone is a system administrator. As long as we have things that break, we will need system administrators. The automobile is more than 100 years old, and yet you still have mechanics to fix cars because they still break. These magical devices in our hands are so far advanced, yet there are mobile phone repair shops in every city, and they're all very busy. Things break. We need a fixer. System administrators fix things. We need system administrators.

So, what exactly does this job entail? A system administrator wears many hats and the smaller your environment, the more hats you will wear. A system administrator covers backups,

file restores, disaster recovery, hardware maintenance, automation, user maintenance, filesystem housekeeping, application installation and configuration, and system security management. System administration covers just about every aspect of hardware and software management for both physical and virtual systems.

You also need a broad knowledge base of network configuration, virtualization, operating systems, and interoperability. A system administrator needs to have some technical knowledge of network security, firewalls, databases, and all aspects of a working network. The reason is that, there are hundreds of fail points in a network and your job is to help locate and resolve failures.

System administration also requires that you stay on top of best practices, learn new software, maintain patches, comply with security notifications, and update hardware. A system administrator's day is very full. In fact, you never really finish, but you have to pick a point in time to abandon your activities. Being a system administrator is a 24x7x365 job, which does take its toll on you physically and mentally. You'll hear a lot about burnout in this field.

It can be said that doing the technical stuff is relatively easy. It's dealing with people that makes the job really hard. That sounds terrible but it's true. On one side, you deal with your management, which is not always easy. You are the person who gets blamed when things go wrong and when things go right, it's "just part of your job." It's a tough place to be.

Coworkers don't seem to make life better for the system administrator. They should, but they often don't. You'll deal with lazy, unmotivated coworkers so often that you'll feel that you're carrying all the weight of the job yourself. Fortunately, not all coworkers are bad – some are helpful, diligent, and proactive.

And then there are users. Oh, the bane of every system administrator's life, the end user! A system administrator once said, "You know, this would be a great job if I just didn't have to interface with users." Many would agree. But then again, with no users, there's probably also no job. Dealing with computers is easy. Dealing with people is hard. Learn to breathe, smile, and comply if you want to survive and maintain your sanity.

Being a system administrator is a rewarding job. It carries with it a great deal of responsibility. It is sometimes unpleasant. It is sometimes really fun. It's a job. System administration isn't easy nor is it for the thin-skinned. It's for those who want to solve complex problems and improve the computing experience for everyone on their network. It's a good job and a good career. Explore it.

Exercise 1. Number the headings of the paragraphs in the order that they appear in the text.

- _____ Many hats of a system administrator
- _____ The challenge of dealing with co-workers
- _____ Stress factors of a sysadmin's job
- _____ The need for system administrators
- _____ An invitation to become a system administrator
- _____ The challenge of dealing with the management
- _____ Network knowledge requirements
- _____ The challenge of dealing with users

Exercise 2. Say if the following statements are TRUE, FALSE or NOT STATED in the text.

1. We need mechanics to fix software.
2. Mobile phones are very advanced devices.
3. System administrator deals only with physical systems.
4. System administrator needs a broad knowledge base of networks.
5. System administrator's job is never really done.
6. You'll often hear about system administrators burning hardware.
7. Dealing with people makes the job relatively easy.
8. System administrator is the person who gets blamed when things go right.
9. Fortunately, all coworkers are helpful, diligent, and proactive.
10. System administrators look forward to interfacing with users.

11. System administrator needs to learn to smile.
12. System administration is for those who want to create complex problems and spoil the computing experience for everyone on their network.

Exercise 3. Answer the questions based on the text.

1. Why will we always need system administrators?
2. According to the text, what does the number of SA's responsibilities depend on? Why do you think that is the case?
3. What operations does SA do with files so that they are still available after natural or man-made disasters?
4. Why is it important for a system administrator to know much about networks?
5. What should a system administrator know about networks?
6. What factors can cause burnout for a system administrator?
7. What other challenges does system administrator face at his or her job?
8. Why is it a rewarding job in spite of all the difficulties?

Exercise 4.

Give antonyms to the following words:

tough –
 diligent –
 broad –
 to comply –
 sanity –
 to reward –

Give synonyms to the following words:

to recover –
 to locate –
 to pick –
 to abandon –
 tough –
 broad –

Exercise 5. Complete the definitions of the terms from the text by filling in the blanks.

*file restore / virtualization / hardware maintenance / disaster recovery / patch
 backup / file system housekeeping / interoperability / network configuration*

1. _____ is a set of changes to a computer program or its supporting data designed to update, fix or improve it.
2. _____ involves removing old or unused files and programs, backing up data, or running disk utilities such as ScanDisk or antivirus scan.
3. _____ is the process of copying backup data from secondary storage to its original location or a new location.
4. _____ is a method of regaining access to its IT infrastructure after events like a natural catastrophe or a cyber attack.
5. _____ is a copy of computer data taken and stored elsewhere in case the original is lost or damaged.
6. _____ is a technology that allows you to run multiple operating systems and applications simultaneously on the same machine.
7. _____ refers to the variety of support services provided for the optimization and/or repair of physical equipment.
8. _____ is the ability of computer systems or software to exchange and make use of information.
9. _____ is the process of setting a network's controls, flow and operation to support the network communication of a network owner.
10. _____ refers to the process of capturing and analyzing visual information using a camera, analog-to-digital conversion and digital signal processing

Exercise 6. Match the words from the left and the right column to create correct collocations.

- | | |
|--------------|---------------------------|
| 1. update | a) security notifications |
| 2. configure | b) patches |

- | | |
|-------------------|-----------------|
| 3. maintain | c) a firewall |
| 4. resolve | d) hardware |
| 5. comply with | e) new software |
| 6. install | f) users |
| 7. interface with | g) failures |
| 8. learn | h) a network |

Task 9

Read and translate the text

SOME TIPS TO MAKE YOU A BETTER WEB DESIGNER

Whether you're just beginning your journey as a web designer or have created countless websites, you can always improve your craft. Here are 5 tips to help you sharpen your skills.

1. Avoid hectic color schemes

With so many wonderful shades and hues out there, it's easy to go overboard with color. Though bright and bold color schemes are at the cornerstone of many designers' aesthetics, when you put too many colors too close together, the visual noise that is created overpowers the rest of the web design. Stick with a simple color palette and neutral background colors. A toned- down background makes colors on call-to-action buttons, menu items, or other design elements stand out and get the attention they deserve.

2. Put some thought into the images you include

The photos that are integrated into a web design layout have a huge impact on the overall look and feel of a website. Poorly shot images with fuzzy focus and questionable composition can diminish even the most brilliant of designs. Generic stock photos can drain the life from a design, leaving it bland and uninspiring.

Using high-quality photos is a simple way to improve your designs. There are plenty of great options out there if you want to use stock photos. But don't just use them as they are. Make sure you crop and edit them. Use filters, adjust the saturation, change the warmth, and use other photo editing techniques to make the images better fit in with the harmony of a web design.

Additionally, pay attention to the file types you're using. Know the difference between a JPG and a PNG. Implementing the correct file types can make a huge difference in how fast your pages load.

3. Learn about SEO

How you put together a web design can have a great impact on SEO. As a web designer, a few things you should know about search engine optimization include:

- ☐ how to properly use header tags like <h1>, <h2>, and <h3>;
- ☐ how the part of a link that identifies a specific page – aka a slug – can influence organic search rankings;
- ☐ how to optimize images to speed up loading times and decrease the bounce rate – which is the percentage of visitors who only view one page on your site and then navigate away without taking any actions.

4. Use responsive design

There are many devices out there with varying screen sizes. No matter how someone is accessing your web design, it should offer a similar experience no matter what it's being viewed on. Instead of putting a huge amount of effort into overly complex animations and hover effects that may not work on every device, it's better to spend that time improving UI and UX for everyone. Using responsive design means your website will be user- friendly and offer an optimized experience across desktop and mobile devices.

5. Define who you are as a designer

It's not uncommon for designers to have multifaceted skill sets. However,

because there are so many different aspects to design, it's impossible to be very skilled at everything. It's important for designers to pursue aspects of design that are personally exciting and interesting to them. Good designers know that having specialties, and becoming experts in those specialties, helps set their work apart and makes them more attractive to potential clients. To start, figure out what type of businesses or clients make you the happiest to work with. For ex-

ample, if you're a foodie, you might find designing restaurant websites a perfect fit for you. Knowing who you are as a designer makes it easier to find the projects you want to work on and the people you want to work with.

Exercise 1. Say if the following statements are TRUE, FALSE or NOT STATED in the text.

1. Bright and bold color schemes are the best choice for a web site.
2. Menu items should be neutral and toned-down.
3. Using poorly shot images is a simple way to improve your design.
4. You should always crop and edit high-quality photos and not use them as they are.
5. If you adjust the saturation, the image may better fit in with the harmony of your web design.
6. JPG and PNG files take different time to load on a web page.
7. A slug the percentage of visitors who only view one page on your site.
8. You should use various tools to try to increase the bounce rate.
9. Some visitors only view one page on your site and then navigate away without taking any action.
10. Your web site will be accessed from devices with the same screen size.
11. You should put huge amount of effort into hover effects, because they improve UI and UX for everyone.
12. Your website should be more user-friendly when viewed on mobile devices than on desktop computers.
13. Many designers have multifaceted skill sets.
14. Having multifaceted skills makes designers more attractive to potential clients.
15. If you are fond of animals, you can choose to design web sites for pet stores or veterinary clinics.

Exercise 2. Answer the questions based on the text.

1. Who are the tips in the text intended for?
2. Why is it not advisable to use too many colors too close together??
3. Why is it advised to use neutral background colors
4. Why is it not advisable to use poorly shot images?
5. Is it ok to use stock photos for your web site?
6. Why is it important to use the correct file type for your image?
7. What is SEO?
8. What can influence SEO?
9. What is bounce rate?
10. What can affect the bounce rate?
11. What is the danger of using complex animations on your web site?
12. What does using a responsive design mean?
13. Why is it important for a designer to choose his or her specialty?
14. How can a designer choose his or her specialty?
15. What important tip on web design have you learned from the text?

Exercise 3. What aspect of web design do the following words and phrases refer to? Put appropriate letter (a-e) in the space provided next to each phrase.

- | | |
|----------------------|------------------------|
| | speed up loading times |
| | generic stock photos |
| | header tags |
| | wonderful shades |
| a) Color schemes | varying screen sizes |
| b) Quality of images | becoming an expert |
| c) SEO | poorly shot |
| d) Responsive design | simple palette |

e) Finding specialty

overly complex animations

filters

personally exciting and interesting

improving UI and UX for everyone

colors on call-to-action buttons

Exercise 4. Insert the words and expressions from the box into the sentences below:

Hectic bland overpower bounce rate deserve impact

1. If you invest in a good web design today, it will have a huge ____ on your business tomorrow.
2. You can crop an image to help the users focus on its details that really _____ their attention.
3. The week before the deadline was _____ and exhausting.
4. If your website receives 100 visitors over a period of time but about 40 visitors leave the first page without interacting further, then the _____ for your website is 40%.
5. Balancing a composition involves arranging all elements in such a way that one area of the design does not _____ other areas.
6. Plugins in web design are pretty cool, they can bring some exciting new features and design to a dull and _____ site.

diminish hovers crop multifaceted design layout hues

7. Working in UX requires a _____ skill set and a passion for user-centric design.
8. There are some graphic design principles that you should follow when creating a _____ for a web site.
9. As soon as the mouse _____ over a specific part of the page or over the element you picked, customized animation will positively surprise and improve the user experience.
10. _____ that contain higher amounts of yellow and red are considered warm colors.
11. Will infiltration of design by artificial intelligence _____ the demand for graphic designers in the near future?
12. When you _____ an image, you remove certain regions of it and reduce its size accordingly

Task 10

1. Match the words and expressions in the left column with their Russian equivalents in the right column.

- 1) to apply for a job
- 2) to take a job
- 3) to earn money
- 4) to make promotion
- 5) to retire
- 6) a notice
- 7) to be dismissed
- 8) to hire smb.
- 9) to feel at home in a job
- 10) to be unemployed
- 11) to do overtime
- 12) to work in shifts
- a) получить продвижение по службе
- b) хорошо владеть какой-либо профессией
- c) получить работу
- d) работать по сменам
- e) подавать заявление о приеме на работу

- f) нанимать кого-либо на работу
- g) работать сверхурочно
- h) выходить на пенсию
- i) быть уволенным
- j) зарабатывать деньги
- k) быть безработным
- l) уведомление об увольнении

2. Translate the following expressions into Russian

- 1) a demanding job; 2) a full-time job; 3) a part-time job; 4) a boring job; 5) clerical work; 6) manual worker; 7) a steady job; 8) a challenging job; 9) a 9-to-5 job; 11) a job interview.

3. Use words and expressions from the exercises 1 and 2 in your own sentences.

4. Read the curriculum vitae (CV) and answer the questions.

1. What is a CV?
2. How is a CV arranged?

Task 11

Summarize the text

AI and Education

Another area where artificial intelligence is making noticeable changes is education. Education is among pillars of modern society. According to experts, artificial intelligence is already a powerful tool for solving a number of pressing problems that exist in the practice of accelerating educational progress and training highly qualified specialists. AI technologies offer various capabilities for personalized learning, automation of routine tasks and analysis of large volumes of data. One of the key ways artificial intelligence will impact education is through the application of greater levels of individualized learning. Some schools are using AI systems to monitor student progress and alert teachers when there might be an issue with student performance. In schools and universities grading work and tests for large lecture courses can be tedious work taking up a significant time of the teachers. It is now possible for intelligent machine tutors to use automated grading for nearly all kinds of multiple choices. There are many projects already in work that use computer intelligence to help both teachers and students alike get more out of the educational programs. Some educational programs based on artificial intelligence already exist and can teach students fundamentals. E-learning and other online teaching and training systems may be improved by interactive e-teacher distant education or educational interactive programs for computer-aided instruction SCHOLAR developed by Jane Carbinell, language model RUGPT3 and many others. IT company Intellias, together with Alphary, has developed a set of intelligent applications for learning foreign languages. The applications are based on data mining, machine learning, corpus statistics and semantic analysis. With the rapid pace of technological advancement, educational tutoring systems may not be a pipe dream. Still, it is necessary to add that despite the important advances in education, AI tutorial systems can perform only auxiliary functions and so far, humanoid robots cannot fully replace human teachers. There are many fields where automated machines cannot do what human teachers can, let alone such problems as motivation emotions, human interactions and relationships.

Task 12

1. Give Russian equivalents to the following words and phrases:

To streamline surgical procedures; current robotics research is geared toward; timely responses; to be consistently effective; to endow machines with emotional intelligence; eye to eye; too much contact can be off-putting; a caregiver; to have specific landmarks; to create a unique face print; to infer the emotional state; vocal fold tension; the emotional makeup of human

brains; complementary theories; to vet a client; to strike a heartstring; cross-cultural incongruences.

2. Translate the extracts from the texts into Russian:

1. As technology progresses, so too does the scope of what is considered robotics. 2. These robots consisted mainly of mechanical arms tasked with welding or screwing on certain parts of a car. 3. Today, we're seeing an evolved and expanded definition of robotics that includes the development, creation and use of bots that accomplish tasks like exploring the planet's harshest conditions, assisting law enforcement, streamlining surgical procedures and undertaking rescue missions. 4. Current robotics is geared toward devising robots with a degree of self-sufficiency that will permit mobility and decision-making in an unstructured environment. 5. Affective computing aims to endow machines with emotional intelligence for improving natural human-machine interaction (HMI). 6. Emotionally intelligent robots can be valuable assets in various industries. For example, they can be used as tutors for autistic children, caregivers for the elderly or mental patients in hospitals, customer service assistants in retail. 7. In HRI, automatic acoustic emotion recognition (AER) has to be performed in order to allow robots to perceive human vocal affect. 8. The emotional makeup of human brains makes us capable of caring about other people and understanding them empathically. So, if AI and Affective Intelligence robots are going to be ethical in the way that people are, they need emotions. 9. The cognitive appraisal theory says that emotions are judgments about the relevance of the current situation to a person's goals. 10. Self-reporting — like feedback during a test group — is helpful, el Kaliouby said, but getting a moment-by-moment response allows marketers to really tell if a particular ad resonated with people or was offensive, or if it was confusing or struck a heartstring.

3. Give English equivalents to the following words and phrases:

Влияние извне; дать задание, поручить сварку частей машины; приводить к разочарованию; настраиваемое программное обеспечение; использовать взаимозаменяемо; наделить машины эмоциональным интеллектом; включать в себя...; слишком пристальный визуальный контакт; моргать; технология оценки эмоций; эмоции собеседника; уловить человеческие эмоции; преуспеть в какой-то области; повысить самосознание пользователя; свернуть на обочину (тротуара); вспомогательная технология.

4. Answer the following questions:

1. Why can plenty of even complex and sophisticated robots fail on the market? 2. How does emotional awareness contribute to the development of HRI? 3. What social cues does human communication incorporate? 4. What is the difference between emotional intelligence and affective intelligence? 5. How do face tracking and gaze tracking technologies complement each other? 6. What is the role of voice in detecting the emotions? 7. What can be the affective intelligence's applications? 8. What are the potential problems of emotional intelligence adoption?

5. Translate from Russian into English:

Понимает ли искусственный интеллект сарказм: ответ ученых Да, но только те модели, которые считывают контекст. Большие языковые модели (LLM) — это усовершенствованные алгоритмы глубокого обучения, которые могут анализировать под- сказки на различных языках, впоследствии генерируя реалистичные ответы. Далеко за примерами ходить не нужно — ChatGPT может быстро отвечать на широкий спектр пользовательских запросов и генерировать убедительные письменные тексты для различных целей. Ученые из Нью-Йоркского университета провели исследование, чтобы оценить эффективность двух языковых моделей, обученных распознавать сарказм у людей, сообщает TechXplore. Некоторые ИИ-модели могут выявить сарказм. Анализ настроений — это область исследований, которая включает в себя анализ текстов, обычно публикуемых в социальных сетях или других веб-сайтах. Это позволяет получить представление о том, как люди относятся к определенной теме. Сегодня многие компании инвестируют в эту область, поскольку это может помочь им понять, как они могут улучшить свои услуги и удовлетворить потребности клиентов. Существует несколько моделей, которые могут обрабатывать тексты и предсказывать их основной эмоциональный тон. Однако многие обзоры и ком-

ментарии, размещенные в интернете, содержат иронию и сарказм, что может заставить моделей классифицировать их как «положительные», хотя на самом деле они выражают отрицательные эмоции, или наоборот. Поэтому ученые пытаются разработать модели, которые смогут обнаружить сарказм в письменных текстах. Две из наиболее многообещающих моделей, названные CASCADE и RCNN-RoBERTa, были представлены в 2018 году отдельными исследовательскими группами. Ученые провели серию тестов, направленных на оценку способности модели CASCADE и RCNN-RoBERTa обнаруживать сарказм в комментариях, размещенных на Reddit, известной онлайн-платформе, которая обычно используется для оценки контента и обсуждения различных тем. Способность этих двух моделей выявлять сарказм в выборочных текстах также сравнивалась со средней производительностью человека при выполнении той же задачи и с производительностью нескольких базовых моделей для анализа текстов. Исследование показало, что контекстная информация, такая как встраивание личности пользователя, может значительно улучшить производительность модели. Эти результаты будут способствовать разработке больших языковых моделей, которые лучше распознают сарказм и иронию в человеческом языке. Такие модели могут в конечном итоге оказаться ценными инструментами для быстрого анализа настроений онлайн обзоров, публикаций и другого пользовательского контента.

Task 13

Read and translate the text

Uniform Resource Locator

Let's review URLs, or Uniform Resource Locators. These constitute the most common and efficient method of telling people about resources available via FTP, the World Wide Web, and other Internet services. A URL uniquely specifies the location of something on the Internet, using three main bits of information that you need in order to access any given object. First is the URL scheme, or the type of server making the object available - this could be an FTP, Gopher, or World Wide Web server. Second comes the address of the resource. Third and finally, there's the full path-name or identifier for the object. As a quick example, URLs (at least those for the Web) generally look something like this one (which points to the Microsoft Web server): <http://www.microsoft.com/>. If it starts with http, use Netscape or some other Web browser to access this url. After the URL scheme comes a colon (:), which delimits the server type from what comes next. If two slashes (//) come next, they note that a machine name in the format of an IP address will follow, such as <http://www.microsoft.com/>. The last part of the URL is the specific information. With this information you're looking for the path to the directory of the file you desire. Directory names are separated from the machine name by a slash (/).

E-Mail

Perhaps the first step that many people have tried when using the Internet is E-mail. In theory, E-mail is an electronic message from a sender to a recipient, (or multiple recipients.) Some people say that an email message is the Internet equivalent of sending a fax. Compared to postal E-mail, (often called 'snail-mail' by Internet users), E-mail is probably much faster. But there are several problems with E-mail. In theory, messages can be sent back and forth immediately (usually within a few seconds), regardless of whether the message is sent to the next building or to the next continent. Nevertheless E-mail messages may sit in the recipient's electronic mailbox for days or weeks until the user checks them. To be able to send an E-mail message, you must know the E-mail address of the person you want to send the message to. A person's E-mail address is constructed from the username they use to login to their provider and the computer's Internet host name. By combining the two with an @ sign between, then you have created that user's E-mail address.

World Wide Web

The World Wide Web makes up a very large percentage of the Internet. Nearly seventy percent of all information searches are handled through the World Wide Web. Information is quickly found in the World Wide Web through typing in key words. The key words are searched through

different search engines, such as Infoseek and Lycos, or through search directories, such as Yahoo and Magellan. These search engines look for key words in their databases. The search results from the search engine are then listed and the user can choose from the titles found. WWW is often also simply mentioned as Web. Web Pages can include texts, pictures, sound- files, animation's, videos and so on. With the new language "Java", which is used for programming Web-pages, there are several more possibilities to design a Webpage. Most people, who are not as well informed about the Internet as you might be after this speech, think that the WWW is, besides E-mail, the only service in the Internet. But there are several other services.

File Transfer Protocol

The second service which can be used is FTP. FTP stands for File Transfer Protocol, and not surprisingly, it's only good for transferring files between machines. In the past, you could only use an FTP client to access files stored on FTP servers. Today enough additional services such as Gopher and the World Wide Web, have implemented the FTP protocols so that you can often FTP files no matter what service you are using. You can even FTP files via E-mail. If you access a FTP-Server with a regular FTP-Client, you see the files listed, as they are listed in a normal UNIX System. You can also navigate by using UNIX-Commands. Or you can use a graphical FTP-Client, which shows directory-information in Windows-Style.

Usenet

The third service is called Usenet. This is split into over 30000 groups called Newsgroups. In each of them, people can post messages to the group-topic. Almost everything on Usenet is a discussion of some sort, although a few groups are devoted to regular information postings, with no discussion allowed. Of course, you can always ask your question, and you usually get an answer, even if it's the sort of question everyone asks. Common questions are called Frequently Asked Questions, or FAQs, and are collected in lists and posted regularly for newcomers. If you search for the Newsgroup of your interest, you will probably find it. For example, there are even some Newsgroups for collectors of butterflies.

Internet Relay Chat

IRC is the fourth service, which is a little like the Usenet - that makes it possible to hold live keyboard conversations with people around the world. It's a lot like an international CB radio - it even uses "channels." Type something on your computer and it's instantly echoed around the world to whoever is on the same channel with you. You can join in existing public group chats or set up your own. You can even create a private channel for yourself and as few as one or two other people. And just like on a CB radio, you can give yourself a unique "handle" or nickname. You can access over 20000 channels with different topics. For example, if you are interested in cars, you can easily connect to the #cars channel and chat with many other people who are also interested in cars.

Telnet

Telnet is the last service and it is not easy to explain to people who have had no experience with a modem. The best definition for Telnet that Telnet is like a normal ANSI modem-connection through the Internet. As with a standard modem, Telnet enables your computer to communicate with another computer somewhere else. As you give your modem a phone number to dial, you give Telnet an Internet address to connect to. And just like a modem, you don't really do anything else within Telnet itself, other than make the connection. In the vernacular, you say your "Telnet" to that remote computer. Once that connection is made, you're using the remote computer over the Internet just as you were sitting next to it. This process is unique because it enables me, for example, to Telnet any University in America (which probably runs a Telnet- Server) and use their Telnet-Server just as I did when I was actually there, and not 10,000 kms away in Austria.

The Internet has very few rules but there are things that are considered good manners and other things that are thought of as bad manners. This is called Netiquette – a word that is a mixture of etiquette (how to behave) and Net (the Internet).

Match the two parts of the mixed up Internet rules below.

- | | | |
|--------------------------------------|---|--|
| 1. People typing quickly | a | if they don't receive a reply and they may think there's something wrong with their system |
| 2. Using capital letters in messages | b | just send a one-line messages |
| 3. Express yourself as clearly | c | something very important to say |
| 4. People get worried and | d | to download and cost time money |
| 5. If you're very busy | e | LIKE THIS, is called shouting |
| 6. Only shout when you have | f | make lots of little errors |
| 7. Long messages take a long time | g | and concisely as you can |

Progress test

best	engine	keywords
search	browse	entire
linked	single	cannot
exclude	miss	sites
combination	hits	news
Web	database	index
on	which	

Complete each gap in this text with a suitable word from this list.

No search engine covers the¹ Web. The scale is too enormous. Meta search tools may cover forty-per cent at². When you use a search³, you are searching a database. Keyword search engines build their own⁴ of search items. They depend⁵ search robots which⁶ the Web, stopping at each site to find⁷ to add to their indexes. Most of them⁸ every word they find in a document. These⁹ engines can produce a huge number of¹⁰ for any keyword you enter but many may have no relevance to your search. Because search engines can only find¹¹ pages that are¹² to other websites or Usenet¹³ articles, they cannot find¹⁴ which stand alone. In addition, they¹⁵ evaluate in any way the material they find. The result can be that you have a large amount of irrelevant and inappropriate hits and may¹⁶ the most helpful site. Searching for phrases or a¹⁷ of key words is more effective than searching for¹⁸ words. Most search engines offer advanced search facilities¹⁹ can be used to combine and²⁰ words and phrases from your search.

Check your vocabulary

Access point	Точка доступа, программно-аппаратное устройство, выполняющее роль концентратора для клиента беспроводной сети. Точка доступа обеспечивает подключение беспроводных рабочих станций к обычной (кабельной) локальной сети.
Access server	Сервер доступа. Компьютер, предоставляющий рабочим станциям доступ к локальной сети или к Интернету.
account	Учетная запись. Содержит всю необходимую информацию для регистрации пользователя в системе, а также права доступа к ресурсам.
Local account	Локальная учетная запись. Находится только на одном (локальном) компьютере (сервере).
User account	Пользовательская учетная запись. Учетные записи бывают разные — бывают учетные записи пользователей,

	и бывают учетные записи целых компьютеров. Если явно указывается «User account», то речь точно идет о пользовательской учетной записи.
ADSL (Asymmetric Digital Subscriber Line)	Асимметрическая цифровая абонентская линия. Цифровая линия, использующая для передачи данных витую пару телефонной сети.
ARP (Address Resolution Protocol)	Протокол разрешения адресов.
ARPAnet	Экспериментальная сеть, созданная в начале 1970-х годов по заказу министерства обороны США. Принципы и основные идеи этой сети легли в основу всемирной сети - Интернета.
Backbone provider	Провайдер магистралей. Предоставляет доступ к высокоскоростным линиям передачи, которые используются для подключения к Интернету.
bandwidth	1. <i>пропускная способность</i> . Количество данных, которое можно передать по каналу или шине за определенный промежуток времени. 2. <i>полоса пропускания</i> , ширина полосы пропускания — диапазон частот, разность между самой высокой и самой низкой возможными частотами в диапазоне частот передающего канала.
BBS (Bulletin Board System)	Электронная доска объявлений в компьютерной сети.
BC (Broadcast channel)	Широкополосный канал.
BCN (Broadband Communication Network)	Широкополосная сеть коммуникации.
BIND (Berkeley Internet Name Domain)	Служба доменных имен. Является стандартом де-факто на DNS в сети Интернет.
BNA (Broadband Network Architecture)	Архитектура широкополосной сети. Была предложена компанией IBM.
bridge	Мост — специальное устройство, соединяющее две или более локальные сети. Мосты не зависят от протокола — все равно, данные какого протокола будут передаваться через мост.
bug	Ошибка в программе («глюк»). «Bug» в переводе с английского — насекомое, жучек.
Commercial sing	Коммерческий знак (@)
Country code	Код страны. У каждой страны, подключенной к Интернету, есть свой двухбуквенный код, например, RU — Россия, UA — Украина.
cybercafe	Интернет-кафе — место, где можно попить кофе и «выйти» в Интернет.
DHCP (Dynamic Host Configuration Protocol)	Протокол настройки узла, который автоматически назначает IP-адрес компьютерам.

DHTML (Dynamic HTML)	Динамический HTML. Усовершенствованная версия языка HTML, позволяющая управлять позиционированием элементов на странице и событиями страницы. Поддерживается Microsoft Internet Explorer, начиная с версии 4.0, и Netscape, начиная тоже с 4.0.
DNS (Domain Name System)	Система доменных имен. Используется для преобразования IP-адресов (с которыми легче работать компьютеру) в символьные адреса, удобные для человека.
Domain	Домен — область сети.
Domain name	Имя домена (доменное имя). Например, в адресе <u>user@dev.company.ru</u> , user – имя пользователя, dev.company.ru – доменное имя.
Dynamic IP address	Динамический IP-адрес. Выделяется компьютеру на определенное время DHCP-сервером. Каждый при входе в сеть компьютеру назначается другой IP-адрес. Обычно динамические IP-адреса используются при удаленном доступе к сети (например, к сети Интернет-провайдера).
Electronic mail (e-mail, E-mail)	Электронная почта.
E-mail client	Почтовый клиент. Программа, умеющая передавать сообщение на SMTP-сервер (для отправки) и принимать сообщения с POP3/IMAP-серверов. Самыми популярными почтовыми клиентами для Windows являются The Bat! и Outlook Express. В Linux можно использовать Evolution, K Mail, Netscape Mail — это графические почтовые клиенты, а если графического интерфейса нет, то можно использовать программы, работающие в командной строке. Это mail, pine, mutt и др.
EMS (Electronic Message Service)	Служба электронных сообщений.
Extranet	Сеть, содержащая деловую информацию компании. У большинства компаний есть своя собственная корпоративная сеть — Intranet. Как правило, в этой сети один-два Web-сервера, которые предназначены не только для внутреннего использования, но и допускающие удаленный доступ извне — информационные серверы. Вот как раз для них и придуман термин — Extranet — часть корпоративной сети, выходящей извне.
Internet IP/IPX gateway	Шлюз Internet IP/IPX. Преобразует пакет IP в пакеты IPX и обратно.
hyperlink	Гипертекстовая ссылка. Ссылка в гипертекстовом документе, указывающая на другой документ.
Hypertext document	Гипертекстовый документ. Документ, содержащий ссылки (связи) на другие документы.

IAB (Internet Architecture Board)	Архитектурный совет Интернета. Консультативная группа, занимающаяся наблюдением за IETF, процессом подготовки стандартов, а так же публикацией RFC.
IAP (Internet Access Provider)	Интернет-провайдер. В отличие от ISP, IAP занимается только предоставлением доступа к Интернету, а ISP может предоставлять и другие услуги — регистрацию доменных имен, хостингов, разработку сайтов и т.д.
ICMP (Internet Control Message Protocol)	Протокол межсетевых управляющих сообщений.
ICQ (I Seek You)	Популярная бесплатная служба общения в реальном времени.
IP (Internet Protocol)	Протокол Интернета. Предназначен для отправки и маршрутизации пакетов.
IP address	IP-адрес — это 32-разрядное число, которое принято записывать в десятичном или шестнадцатеричном формате в виде четырех чисел, разделенных точками.
IPCP (Internet Protocol Control Protocol)	Управляющий протокол для Интернета.
ISDN (Integrated Services Digital Network)	Цифровая сеть интегрированного обслуживания. Используется для передачи речи, данных, видео.
ISP (Internet Service Provider)	Интернет-провайдер. Организация, предоставляющая доступ к Интернету.
POP (Post Office Protocol)	Протокол почтового отделения. Этот протокол используется для получения электронной почты с почтовых серверов.
RU net	Российская сеть. Российская часть Интернета.
SMTP (Simple Mail Transfer Protocol)	Простой протокол передачи почты. Используется для доставки почты.
URL (Uniform Resource Locator)	Универсальный указатель ресурсов. Состоит из имени протокола, имени сервера, номера порта и имени файла.
USENET	Всемирная сеть передачи новостей.
WINS (Windows Internet Naming Service)	Служба Интернет-имен операционной системы Windows. Аналог создания DNS, но для Windows.
WWW (World Wide Web)	«Всемирная паутина». Глобальная гипертекстовая информационная система в Интернете.
XML (eXtensible Markup Language)	Расширяемый язык ссылок. Документацию XML можно найти на сайтах.

Task 14

Match the terms with their definitions.

1. Integrity	a. Application of cryptography to make information unintelligible, i.e. translating plaintext into cipher text using a prescribed algorithm and a
2. Vulnerability	

3. Information security 4. Encryption 5. Confidentiality 6. Availability 7. Unauthorized	key. b. Not permitted, accepted or agreed by management. c. One of the three core elements of information security, along with availability and integrity. It essentially concerns secrecy or privacy. d. The preservation of confidentiality, integrity and availability of information. In addition, other properties, such as authenticity, accountability, non-repudiation, and reliability can also be involved. e. Weakness in an information system, or cryptographic system, or components (e.g., system security procedures, hardware design, internal controls) that could be exploited to violate system security policy and result in a security breach. f. Property of completeness and accuracy of information. Protected through controls such as referential integrity, data entry validation, digital signatures, honesty, ethics and trust. One of the three core elements of information security, along with confidentiality and availability. g. One of the three core elements of information security, along with confidentiality and integrity. It concerns the requirement for information, IT systems, people and processes to be operational and accessible when needed.
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Match the English phrases with their Russian equivalents:

1. usability 2. integrity 3. robustness 4. unauthorized access 5. sensitive information 6. vulnerability 7. compromise 8. remote access 9. encryption 10. confidentiality 11. availability 12. decipher 13. legitimate 14. tradeoff	А. секретная информация В. шифровать С. кодирование, шифрование D. несанкционированный доступ Е. законный F. конфиденциальность G. целостность Н. уязвимость I. устойчивость J. подвергать риску К. удаленный доступ L. доступность М. компромисс N. практичность
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Watching. Video «The Five Laws of Cybersecurity »

https://www.youtube.com/watch?v=_nVq7f26-Uo

Pre-viewing tasks

Answer the questions. Give your own ideas and examples.

1. What is cybersecurity?
2. What should people do to protect themselves in the Internet?
3. Can you name any life hacks how to stay safe online?

Read the words and translate them into Russian.

- ☐ Networking protocols
- ☐ Social media platforms
- ☐ Emoji
- ☐ To foster
- ☐ Nerd

- ☐ Vulnerability
- ☐ Computer bug
- ☐ To exploit
- ☐ To derail
- ☐ Ubiquitous
- ☐ Malicious
- ☐ To underscore
- ☐ Phishing scams
- ☐ bandwidth

Viewing tasks

Fill in the gaps.

1. What our common internet culture tends to lack is a common understanding to _____ understanding about cybersecurity and _____ online.
2. In the modern era, _____ good and bad have been looking for ways to get around the laws and framework that govern a _____.
3. In the beginning of 2018, it was discovered that these technological _____ are carrying a serious mass of _____.
4. The biggest examples of innovation exploitation is _____.
5. In 2016, a virus known as Mirai _____ millions of IoT devices worldwide.

Answer the questions on the video.

1. Can you name 5 laws of cybersecurity? Give brief characteristic to each of them
2. What is Law # 3? How does the speaker illustrate it?
3. What did A.G. Bell, B. Gates, M. Zuckerberg do? How is it connected with exploits?
4. What is IoT hacking?
5. Comment upon the speaker's phrase: "When we start thinking like a hacker is when we can actually stop them"

Task 15

Give Russian equivalents to the English words and phrases:

An emerging topic; powerful data analysis capabilities; widespread implementation; ecosystem shared between wearable, portable, and even implantable devices; people with disabilities; reduce congestion and energy consumption; estimating the potential economic impact; attention-grabbing headlines; embedded with the ability to collect data; manual intervention; services bridging the physical and virtual worlds; unique security challenges; protected from vulnerabilities; this challenge is amplified; incredible and unique value; may hinder the full adoption; the internet of things holds great promise to deliver social and economic benefits; sustainable agriculture; devices enable data exchange and collection; predictive maintenance technology; malfunction of the vehicle's hardware; across a range of stakeholders; market and investment incentives; technical skills requirements.

Translate the extracts from the text into Russian:

1. A number of companies and research organizations have provided a wide range of expectations about the potential impact of the internet of things on the internet and the economy over the next decade. Huawei expects 100 billion IoT connections by 2025 estimating the potential economic impact of the Internet of Things from \$3.9 to \$11 trillion annually in 2025, driven by: Lower device prices, advanced cloud storage computing, higher speed and lower delivery costs. This increases the number of machines and devices connected to the Internet. Also estimated (2015) that the internet of things will contribute 4% — 11% of global GDP in 2025.

However, at the same time, the internet of things raises significant challenges that could stand in the way of realizing its potential benefits. Attention-grabbing headlines about the internet device hacking, surveillance concerns, and privacy concerns have already captured the public's attention. Technical challenges remain, and new political, legal and development challenges arise.

This discussion is “promise versus risk” along with the flow of information through popular media and marketing can make the internet of things a complex topic to understand.

The definition of the internet of things (IoT) is not definitively limited and not currently defined, meaning that there is no general definition approved by the majority or by the global user community, and therefore the internet of things is maturing and continuing to be the newest, most popular concept in the world of information technology. The “thing” in IoT can be any device with any type of sensor embedded with the ability to collect data and transmit it across the network without manual intervention. The technology embedded in the object helps to interact with internal states and the external environment, which in turn aids in the decision-making process.

2. Interoperability is the ability to exchange information between various IoT devices and systems. This exchange of information is not based on published software and hardware. The problem of interoperability arises due to the heterogeneous nature of the technology and the various solutions used to develop IoT.

With interoperability as an important issue, researchers have agreed with several solutions such as adaptive, gateway based, virtual network and service-based architecture. They are also known as approaches to dealing with interoperability. Although the methods of dealing with interoperability relieve the possibility of interoperability which could be an area for future studies. The use of IoT devices raises many new regulatory and legal questions in addition to amplifying existing legal issues around the internet. The questions are wide-ranging, and the rapid rate of change in IoT technology often outpaces the adaptability of associated policies and legal and regulatory structures. With the development of the internet of things, many real-life problems have been solved but have also given rise to critical ethical and legal challenges such as data security, privacy protection, trust, security, and data usability. It has also been observed that the majority of IoT users support government rules and regulations regarding data protection, privacy and safety due to mistrust of IoT devices. Therefore, this issue should be taken into consideration to maintain and improve trust among people regarding the use of IoT devices and systems.

Thanks to the power of the Internet of Things, entire cities are becoming digitally interconnected and thus smarter. By collecting and analyzing huge amounts of data from IoT devices across different city systems, cities improve the lives of citizens. Smart cities can make better decisions through the data they collect on infrastructure needs, transportation requirements, crime and safety. A study shows that using existing smart city applications, cities improve quality of life indicators (such as crime, traffic, and pollution) by between 10% and 30%. Internet of things technologies in everyday life as part of your home, transportation, or city, relate to a more efficient and enjoyable life experience. IoT promises a better quality of life through routine chores and increased health and wellness.

Ultimately, solutions will not be found to maximize the benefits of the IoT while minimizing the risks by engaging in a polarized discussion that pits IoT’s promises against its potential risks. In a way, it will take informed participation, dialogue and collaboration across a range of stakeholders to chart the most effective way forward, and the set of IoT challenges will not be limited to industrialized countries. Developing regions will also need to respond to realize the potential benefits of the internet of things. In addition, it will need to address unique needs and challenges for implementation in less developed regions, including infrastructure readiness, market and investment incentives, technical skills requirements, and policy resources.

Task 15

Give English equivalents to the Russian words and phrases:

Встроенная возможность сбора данных; ручное вмешательство; сервисы, соединяющие физические и виртуальные возможности; вновь возникающие уникальные проблемы безопасности; все заявленные программы защищены от уязвимостей; со временем эта проблема усугубляется; необходимо ценить невероятную и уникальную ценность; может препятствовать полному восстановлению такого рода программ; в настоящее время интернет вещей имеет большие перспективы для обеспечения социальных и экономических

выгод любого уровня; устойчивое сельское хозяйство; современные устройства обеспечивают обмен и сбор данных; технология профилактического обслуживания; неисправность аппаратной части транспортного средства грозит большими неприятностями; по целому ряду вопросов при переговорах заинтересованных сторон; рыночные и инвестиционные стимулы; требования к техническим навыкам.

Answer the following questions:

Why do we speak about the Internet of Things as the emergency problem?

What makes the Internet of Things so powerful and helpful technology nowadays?

What are the most interesting implementations of the Internet of Things in the nearest future?

Why is the interoperability of IoT so important?

Translate the following texts from Russian into English:

1. Интернет вещей иногда трактуют как синоним систем smart (в переводе с англ. — умный): умные устройства, умные дома, умный город, умная среда, умные предприятия и т. д. Далее рассмотрим их подробнее. Умные устройства могут собирать данные, отслеживать действия и настраивать опыт для нужд и желаний пользователей. Их можно носить на разных частях тела (голове, глазах, запястье, талии, руках, пальцах, ногах), либо эти устройства встраиваются в различные элементы одежды. Умный дом — это интеграция технологий и услуг посредством домашней сети для повышения качества жизни. Решения этой категории делают жизнь владельцев дома более удобной и приятной. Некоторые из них предназначены для оказания помощи пожилым в повседневной деятельности и мониторинге здоровья. Из-за высокого рыночного потенциала все больше интеллектуальных решений для дома выходит на рынок — умное управление энергией и ресурсами в основном направлено на взаимодействие системы и деятельности человека. Умный город — это городской регион, который имеет передовую инфраструктуру, коммуникации и жизнеспособный рынок. Это город, где информационные технологии являются основой для предоставления основных услуг жителям. Существует множество технологических платформ, включая автоматизированные сенсорные сети и центры обработки данных. Фактически городской IoT направлен на использование самых современных коммуникационных технологий с целью поддержки дополнительных услуг для администрации города и горожан. Применение парадигмы IoT к городскому контексту представляет особый интерес, поскольку она реагирует на тенденцию многих национальных правительств к внедрению информационно-коммуникационных решений в управлении государственными делами.

2. К 2030 году во всем мире будет активировано более 100 млрд умных устройств, что в 10 раз превзойдет население планеты. В каких направлениях будет развиваться интернет вещей и какие компании могут стать бенефициарами тренда? Домовладельцы, использующие камеру видеонаблюдения для защиты семьи; фермеры, наблюдающие за посевами с помощью дронов; спортсмены, применяющие устройства для оптимизации тренировок, — все мы становимся частью системы под названием «интернет вещей» (IoT). В 2019 году рынок устройств IoT достиг отметки \$742 млрд, а к 2023 году, по прогнозам аналитиков IDC, он может превысить \$1 трлн. The Internet of Things 119 Умный дом, умный гаджет. Можно выделить несколько областей, где применение IoT-устройств будет активно расти. Во-первых, это экосистема умных домохозяйств: различные датчики, лампочки, розетки, бытовая техника. Цифровые виртуальные ассистенты вроде Alexa (Amazon), Google Assistant или «Алиса» («Яндекс») становятся своеобразным проводником между сетью устройств и человеком. С помощью голосовых помощников можно управлять работой IoT-техники: включать свет, выбирать музыку, запускать кондиционер или пылесос. В 2020 году этот сегмент рынка IoT оценивался в \$79 млрд, а к 2026 году вырастет до \$314 млрд. Еще одна область активного проникновения IoT — современные автоматизированные производства. Применение подключенных устройств позволяет увеличивать степень автоматизации, осуществлять удаленное управление и мониторинг. Проанализировав временные затраты рабочих на производстве, концерн Bosch обнаружил, что рабочие тратят

большое количество времени на поиск инструментов в цеху. Чтобы решить эту проблему, компания добавила к своим инструментам датчики отслеживания. Таким образом, сотрудники всегда знают, где лежит тот или иной инструмент, и не тратят время на его поиск. Это повышает производительность труда рабочих и в итоге увеличивает доходы компании. По данным Grand View Research, в 2020 году сегмент IoT-устройств для автоматизации производств оценивался в \$215 млрд. К 2025 году он вырастет до \$950 млрд.

3. Что произойдет, если отдельные технические устройства приобретут сетевой интерфейс? Очевидно, что результатом будет беспрецедентное количество «вещей», подключенных к сети Интернет. Менее очевиден ответ на вопрос, что это будет означать для управления Интернетом. В свете концепции Интернета вещей (Internet of Things, IoT) взаимодействующие управленческие структуры уже приспосабливаются к тому, чтобы соответствовать эволюции применений Интернета. Однако, поскольку структура управления продолжает развиваться, безопасность пользователей становится приоритетом для всех поставщиков технических и программных решений. В контексте Интернета вещей в данной статье предлагается определение цифровой безопасности, отличающееся от защиты данных, а также обсуждается то, как управление, затрагивающее различных заинтересованных лиц, может применяться для обеспечения такой безопасности. В работе также рассматриваются вопросы интеграции «старых» отраслей и трансформации управления ими в «мульти» модель по мере того, как их продукты и услуги становятся онлайн-овыми. Обсуждается, как тысячи производителей, традиционно производящие не связанные между собой «вещи», адаптируются к роли стейк-холдеров Интернета и как это изменяет наше представление об управлении Интернетом. Особое внимание в статье уделено тому, как это связано с вопросами безопасности, которые становятся все более актуальными в связи с широким распространением Интернет-ориентированных физических устройств.

4. На теорию управления существенное влияние оказывают научные технологические достижения. Важным фактором современного развития управленческой деятельности выступают распределенные информационные технологии. Одним из подходов, реализующим распределенное управление, являются сетевые системы и технологии. Одной из таких технологий и систем является технология Интернет вещей. Появление этой технологии как нового этапа глобального технологического развития связано и обусловлено динамичным внедрением информационно-коммуникационных технологий во все сферы жизни общества. Эта технология проявляется прежде всего в быстрорастущей цифровой экономике, опирающейся на массовое использование технологий Интернет, достижений микроэлектроники и программной инженерии. Интернет-вещей и решения на их основе часто называют «умными» (smart). Сегодня они наиболее широко представлены в таких областях, как «умное производство», «умная энергетика», «умная агрокультура», «умная логистика», «умный транспорт», «умный дом», «умный город», «умное здравоохранение» и этот перечень, очевидно, будет только расти, охватывая все новые рыночные сегменты.

Task 16

This is the summary of the section. Render it in English

Architecture of future information systems

The installation of high-speed networks using optical fiber and high bandwidth message forwarding gateways is changing the physical capabilities of information systems. These capabilities must be complemented with corresponding software systems advances to obtain a real benefit. Without smart software we will gain access to more data, but not improve access to the type and quality of information needed for decision making.

To develop the concepts needed for future information systems we model information processing as an interaction of data and knowledge. This model provides criteria for a high-level functional partitioning. These partitions are mapped into information processing modules. The modules are assigned to nodes of the distributed information systems. A central role is assigned to modules that mediate between the users' workstations and data resources. Mediators contain

the administrative and technical knowledge to create information needed for decision-making. Software which mediates is common today, but the structure, the interfaces, and implementations vary greatly, so that automation of integration is awkward.

By formalizing and implementing mediation we establish a partitioned information systems architecture, which is of manageable complexity and can deliver much of the power that technology puts into our reach. The partitions and modules map into the powerful distributed hardware that is becoming available. We refer to the modules that perform these services in a sharable and composable way as mediators.

We will present conceptual requirements that must be placed on mediators to assure effective large-scale information systems. The modularity in this architecture is not only a goal, but also enables the goal to be reached, since these systems will need autonomous modules to permit growth and enable them to survive in a rapidly changing world.

Computer-based information systems, connected to world-wide high-speed networks provide increasingly rapid access to a wide variety of data resources. This technology opens up possibilities of access to data, requiring capabilities for assimilation and analysis which greatly exceed what we now have in hand. Without intelligent processing these advances will have only a minor benefit to the user at a decision-making level. That brave user will be swamped with ill-defined data of unknown origin.

In essence, the gap between information and data will yet be wider than it is now. Knowing that information exists, and is accessible creates expectations by end-users. Finding that it is not available in a useful form or that it cannot be combined with other data creates confusion and frustration. We believe that the objection made by some users about computer-based systems, that they create information overload, is voiced because those users get too much of the wrong kind of data.

We find two types of problems: for single databases a primary hindrance for end-user access is the volume of data that is becoming available, the lack of abstraction, and the need to understand the representation of data.

To manage the variety of knowledge, we employ specialists, and to manage the volume of data, we segment our databases. In these partitions partial results are produced, abstracted, and filtered. The problem of making decisions is now reduced to the issue of choosing and evaluating the significance of the pieces of information derived in those partitions and fusing the important portions.

For example, an investment decision for a manufacturer will depend on the fusion of information on its own production capability versus that of others, of its sales experience in related products, of the market for the conceived product at a certain price, of the cost-to-price ratio appropriate for the size of the market, and its cost of the funds to be invested. Specialists will consider these diverse topics, and each specialist will consult multiple data resources to support their claims. The decision maker will fuse that information, using considerations of risk and long-range objectives in combining the results.

An effective architecture for future information systems must support automated information acquisition processes for decision-making activities. By default, we approach the solution in a manner analogous seen in human-based support systems. While we model the system based on abstractions from the world of human information processing, we do not constrain the architecture to be anthropomorphic and to mimic human behavior. There are many aspects of human behavior that we have not yet been able to capture and formalize adequately. Our goal is merely to define an architecture wholly composed of pieces of software that are available or appear to be attainable in a modest timeframe, say ten years. The demands of the software in terms of processing cost should be such that modern hardware can deal with it.

Task 17

This is the summary of the section. Render it in English

Internet Addiction

Last week, in a private rehabilitation clinic outside Edinburgh, Leo Edwards, a sixteen-year-old schoolboy, was going through severe withdrawal symptoms. His body often shook violently and uncontrollably, and at mealtimes he regularly threw cups and plates around the dining room. The boy's addiction had nothing to do with alcohol, drugs, gambling or food. His problem was 'Net obsession'— an over-dependency on the Internet.

An international group of psychologists has recently suggested that anyone who surfs the Internet for long periods is clinically ill and needs medical treatment. According to their report, Internet addicts should be treated in the same way as alcoholics, drug addicts, compulsive gamblers and people with eating disorders.

Leo Edwards is not an isolated case. Russell Hopkins, aged fifteen, from Gateshead in north-east England, is a typical online addict.

Every day after school, and after dinner until three or four in the morning, he will be found in his room surfing the Net or playing computer games. By the end of the day he will have spent more than six hours online. Understandably, his parents are extremely worried. Not only has his school work suffered, but Russell's addiction has also destroyed his social life and his spare-time interests. For instance, he has just dropped out of his school's basketball team in order to spend more time at his computer. Instead of spending next weekend having a good time out with friends, he'll be spending it indoors surfing the Internet.

Russell has recently joined an Internet online support group. It may seem ironic that many of the support groups for Internet addicts are online but at least Russell has sought help. Not everyone does. Dr Ann Hoffman, who runs an online support group, says, "People don't realise that being online for more than four hours a day amounts to addiction and that they have a serious problem. I predict that the number of people who join online support groups will have risen dramatically within three years."