Волинський національний університет імені Лесі Українки
Факультет іноземної філології
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ENGLISH

FOR INFORMATION

TECHNOLOGY STUDENTS

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Рецензенти:

Коляда Е. К., кандидат філологічних наук, професор кафедри практики англійської мови Волинського національного університету імені Лесі Українки

Літвінчук А. Т., кандидат педагогічних наук, доцент кафедри іноземних мов Національного університету водного господарства та природокористування

Навчально-методичний посібник «English for Information Technology Students» укладений згідно з силабусами освітнього компоненту «Англійська мова за професійним спрямуванням» для студентів III та IV курсів факультету інформаційних технологій та математики. Складається з чотирьох змістових модулів та чотирьох додатків. Кожний модуль включає тексти, тематика яких відображає широкий спектр питань у сфері інформаційних технологій та інформатики та комплекс вправ лексико-граматичного характеру на закріплення фахової лексики.

Призначений для студентів спеціальностей «Кібербезпека», «Комп'ютерні науки та інформаційні технології», «Середня освіта. Інформатика», а також для науковців сфери інформаційних технологій та інформатики, які прагнуть поліпшити знання англійської мови за фахом.

ПЕРЕДМОВА

Навчально-методичний посібник «English for Information Technology Students» призначений для студентів ІІІ-ІV курсів спеціальностей «Кібербезпека», «Комп'ютерні науки та інформаційні технології», «Середня освіта. Інформатика» та укладений згідно з силабусами освітнього компоненту «Англійська мова за професійним спрямуванням» на факультеті інформаційних систем та математики.

Мета навчально-методичного посібника: виробити у студентів вміння і навички, необхідні для практичного використання англійської мови в професійній діяльності.

Навчально-методичний посібник складається з чотирьох змістових модулів. До модулю входить 3 основних тексти, які охоплюють широке коло тем, що входять у сферу професійних інтересів майбутніх фахівців з комп'ютерних наук та інформатики: «Computer networks», «Cloud computing», «Robotics», «Security threats».

Вправи, подані у розділах, спрямовані на формування лінгвістичної та професійної компетенції майбутніх фахівців у сфері інформаційних технологій та інформатики (лексичні вправи на підбір терміну до визначення чи перекладу, заповнення пропусків у тексті, визначення правильності чи хибності твердження, відповідей на запитання тощо).

Кожний модуль включає низку граматичних вправ (change the forms of the verbs, select the correct word from the choices in brackets, correct the mistakes in the sentences, fill in the proper form of the suggested verbs, etc.) спрямованих на вироблення вмінь правильного вживання часових форм, модальних дієслів, неособових форм дієслова, фразових дієслів тощо.

Додатки містять тексти для самостійного опрацювання, таблиці фразових дієслів та використання іменників, прикметників та дієслів з прийменниками.

MODULE 1
COMPUTER NETWORKS. INTERNET SECURITY
Text 1. COMPUTER NETWORKS

Basic Vocabulary

be split	розподілятися між	to parse	аналізувати, розбирати
transmission path	канал передачі		
access point	точка доступу	fibre-optic cable	скловолоконний кабель
wireless adaptor	бездротовий адаптер		
peer-to-peer	одноранговий	router	маршрутизатор
SQL (Structured Query Language)	мова структурованих запитів		

Networking allows two or more computers systems to exchange information and share resources and peripherals. Traditionally, networks have been split between wide area networks (WANs) and local area networks (LANs).

LANs are usually placed in the same building. They can be built with two main types of architecture: **peer-to-peer** or **client-server**. Computer in a LAN needs to use the same protocol. **Ethernet** is one of the most common protocols for LANs. A **router** is needed to link a LAN to another network, e. g. to the Net. Most networks are linked with cables or wires but new **Wi-Fi** technologies allow the creation of WLANs, where cables are replaced by radio waves. To build a WLAN you need **access points** and **wireless adapters** installed in your computer to link it to the network.

WANs have no geographical limit and may connect computers or LANs on opposite sides of the world. They are usually linked through telephone lines, fibre-optic cables or satellites. The main transmission paths within a WAN are high-speed lines called **backbones**. Wireless Wans use mobile telephone networks. The largest WAN in existence is the Internet.

Originally, networks were used to provide terminal access to another computer and to transfer files between computers. Today, networks carry e-mail, provide access to public databases and bulletin boards, and are beginning to be used for distributed systems. Networks also allow users in one locality to share expensive resources, such as printers and disk-systems.

Distributed computer systems are built using networked computers that co-operate to perform tasks. In this environment each part of the networked system does what it is best at. The high-quality bit-mapped graphics screen of a personal computer or workstation provides a good user interface. The mainframe, on the other hand, can handle large numbers of queries and return the results to the users.

In a distributed environment, a user might use his PC to make a query against a central database. The PC passes the query, written in a special language (e.g. Structured Query Language – SQL), to the mainframe, which then parses the query, returning to the user's PC only the specific information requested, network traffic is reduced. If the whole file was transmitted, the PC would then have to perform the query itself, reducing the efficiency of both network and PC.

In the 1980s, at least 100,000 LANs were set up in laboratories and offices around the world. During the early part of this decade, synchronous orbit satellites lowered the price of long-distance telephone calls, enabling computer data and television signals to be distributed more cheaply around the world. Since then, fibre-optic cable has been installed on a large scale, enabling vast amounts of data to be transmitted at a very high speed using light signals.

The impact of fibre optics will considerably reduce the price of network access. Global communication and computer networks will become more and more a part of professional and personal lives as the price of microcomputers and network access drops. At the same time, distributed computer networks should improve our work environments and technical abilities.

EXERCISES

1. Read and translate the text. Learn the words from *Basic Vocabulary*.

2. Are the statements True or False? Correct any False statements.

1. A LAN is a network connected over long-distance telephone lines. _____

2. Access points don't need to be connected to a wired LAN. _____ 3. In a client-server architecture, all the workstations have the same capabilities. _____ 4. A

personal computer can handle large numbers of queries and return the results to the users. _____ 5. The word protocol refers to the shape of the network. _____ 6. Synchronous orbit satellites lowered the price of long-distance telephone calls. _____ 7. The PC passes the query, written in a special language (SQL), to the mainframe. ____ 8. Distributed computer networks will not improve our work environments and technical abilities. _____ 9. Fibre-optic cable enables vast amounts of data to be transmitted at a low speed using light signals. _____ 10. Wireless WANs use fibre and cable as linking devices. _____

3. Look back in the text and find words that have a similar meaning to:

1. divide _____   4. cost_____

2. place _____   5. world-wide_____

3. carry out_____

4. Look back in the text and find words that have an opposite meaning to:

1. synthesize _____   4. tiny _____

2. weaken _____   5. increase _____

3. cheap _____

5. Find English equivalents in the text:
потребувати точки доступу; побудований за допомогою мережевих комп'ютерів; забезпечувати хороший інтерфейс користувача; міжміські телефонні розмови; супутники на синхронній орбіті; обробляти велику кількість запитів; поширюватися по всьому світу; з іншої сторони; мережі мобільного зв'язку; на початку цього десятиліття; ділитися дорогими ресурсами.

6. Match the words or phrases in two columns to form the word-combination from the text:

1. to share   a) between computers
2. to provide terminal access b) against a central database
3. transfer files   c) resources and peripherals
4. provide access to   d) fibre optics
5. to make a query   e) to another computer
6. the impact of   f) of both network and PC

7. improve our work	g) public databases
8. to reduce the efficiency	h) bit-mapped graphics screen
9. to do what	i) environments and technical abilities
10. the high-quality	j) it is best at

7. Match the words with the definitions.

1. protocol	a) a device that forwards data packets
2. bulletin board	b) a high-speed, high-capacity digital connection which forms the axis of a local or wide area network
3. user interface	c) agreement governing the procedures used to exchange information between co-operating computers
4. make a query	d) means of communication between human user and a computer system
5. parse	e) networks in which the two computers have the same capabilities
6. synchronous	f) wireless fidelity
7. peer-to-peer	g) taking place at exactly the same time as something else
8. router	h) analyse the syntax of a string of input symbols
9. Wi-Fi	i) request a search
10. backbone	j) a teleconferencing system allowing users to read messages left by other users

8. Match each paragraph with the appropriate summary.

a) Network uses, past and present

b) How distributed systems work

c) Networks and the future

d) What networks are and how they operate

e) The growth of networks, past and present

9. Read this summary of the text and fill in the gaps using the list of words.

Distinction	fibre-optic	protocols	synchronous
Distributed systems	LANs	queries	workstations
Environments	parses	screen handling	

Computer networks link computers locally or by external communication lines and software (1) _____, allowing data to be exchanged rapidly and reliably. The (2) _____ between local area and wide area networks is, however, becoming unclear. Networks are being used to perform increasingly diverse tasks, such as carrying e-mail, providing access to public databases, and for (3) _____. Networks also allow users in one locality to share resources.

Distributed systems use networked computers. PCs or (4) _____ provide the user (5) _____. Mainframes process (6) _____ and return the results to the users. A user at his PC might make a query against a central database. The PC passes the query, written in a special language, to the mainframe, which then (7) _____ the query, returning to the user only the data requested. This allows both the network and the individual PC to operate efficiently.

In the 1980s, at least 100,000 (8) _____ were set up world-wide. As (9) _____ orbit satellites have lowered the price of long-distance telephone calls, data can be transmitted more cheaply. In addition, (10) _____ cable has been installed on a large scale, enabling vast amounts of data to be transmitted at a very high speed using light signals. This will considerably reduce the price of network access, making global networks more and more a part of our professional and personal lives. Networks should also improve our work (11) _____ and technical abilities.

10. a) Read the text "Network configurations":

Network Configurations

Star. In the star configuration, the central computer performs all processing and control functions. All access devices are linked directly to the central computer. The star configuration has two major limitations. First of all, the remote devices are unable to communicate directly. Instead, they must communicate via the central computer only. Secondly, the star network is very susceptible to failure, either in the central computer or the transmission links.

Switched. The central switch, which could be a telephone exchange, is used to connect different devices on the network directly. Once the link is established, the two devices communicate as though they were directly linked without interference from any other device. At the end of the session, the connection is closed, freeing capacity for other users and allowing access to other devices. Multiple switches can be used to create alternative transmission routes.

Ring. Each device is attached to a network shaped as a continuous loop. Data proceeds in only one direction and at a constant speed round the loop. Devices may send information only when they are in control of the 'token'. The token is a package of data which indicates which device has control. The receiving device picks up the token, then clears it for another's use once it has received the message. Only one device may send data at any given moment, and each device must be working for the network to function.

Bus/Ethernet. A bus network consists of one piece of cable terminated at each end to which all devices are connected. In a bus-based network, each device is able to broadcast a message when it has detected silence for a fixed period of time. All devices receive the broadcast and determine from the content of the message whether it was intended for them. The only problem occurs when two devices try to send at the same time. When a sending device detects another transmission, it aborts its own.

b) These are answers to questions about the text. Write the questions.

1. To connect different devices on the network directly.

_____

2. No, it goes in only one direction round the loop.

_____

3. No, only one device may send data at any given moment.

_____

4. From the content of the message.

_____

5. It cancels its own transmission.

_____

c). The columns below describe characteristics of the bus and ring configurations. Which column refers to which configuration? How did you decide?

A	B
varied time response	calculable time response
easy expansion	difficult reconfiguration
fault-tolerant	fault-intolerant
simple	more complex

11. Answer the following questions on the text:

1. What does networking allow computer systems to do? 2. What two types of networks are distinguished? 3. What is meant by Ethernet? 4. What do you need to build a WLAN? 5. How are WANs usually linked? 6. What were the reasons for using networks in the past? 7. How are distributed computer systems built? 8. What language is used by the PC to pass the query to the mainframe? 9. Where were LANs set up in the 1980s? 10. What is the function of fibre-optic cable?

12. Translate into English:

Локальна мережа працює всередині однієї будівлі, наприклад будинку, офісу чи фабрики. Локальні мережі широко використовуються для з'єднання персональних комп'ютерів і побутової електроніки, щоб спільно використовувати ресурси (наприклад, принтери) і обмінюватися інформацією. Коли локальні мережі використовуються компаніями, вони називаються корпоративними мережами. Бездротові локальні мережі дуже популярні в наші дні. У цих системах кожен комп'ютер має радіо-модем і антену, які він використовує для зв'язку з іншими комп'ютерами.

Глобальна мережа охоплює велику географічну територію, часто країни або континенти. У більшості глобальних мереж підмережа складається з двох окремих компонентів: ліній передачі (*transmission lines*) і комутаційних елементів (*switching elements*). Лінії передачі переміщують (*to move*) біти між машинами. Комутаційні елементи є спеціалізовані комп'ютери, які з'єднують дві

або більше ліній передачі. Коли дані надходять на (*to arrive on*) вхідну лінію (*an incoming line*), комутаційний елемент повинен вибрати вихідну лінію (*an outgoing line*) на які їх пересилати (*to forward*). Ці комутаційні комп'ютери називаються маршрутизаторами.

13. Retell the text "Computer networks" using your active vocabulary.

Phrasal Verbs

A **phrasal verb** is a verb combined with an adverb or a preposition, or sometimes both, to give a new meaning. For example, *'go in for'*, *'win over'* and *'see to'*." Phrasal verbs often function as informal versions of more formal expressions. For example, *I really **messed up*** is more informal than *I made some serious mistakes*.

14. Look at Appendix 2, then fill in the correct particle.
1. Our school usually **breaks** _____ for the summer in July. 2. My car **broke** _____ on the motorway and I had to walk to a garage. 3. When she fell off the chair, the whole class **broke** _____ laughter. 4. The prisoner managed to **break** _____ of prison after murdering the guard. 5. The robber **broke** _____ the house by smashing a window. 6. The fire **broke** _____ in the basement and quickly spread upwards. 7. At the funeral, the boy's mother **broke** _____ and started crying. 8. The government's new policies have **brought** _____ many changes over the past few months. 9. When Paul fainted, his friends splashed him with cold water to **bring** him _____. 10. As both her parents had died, she was **brought** _____ by her grandparents. 11. Susan's first novel will be **brought** _____ in December. 12. After trying to persuade him for hours, I finally **brought** him _____ to my point of view. 13. This music **brings** _____ happy memories. 14. The meeting has been **brought** _____ to tomorrow evening. 15. David **brought** _____ five thousand pounds in sales last month.

15. Look at Appendix 2, then fill in the correct phrasal verb.

1. If you press the wrong buttons, the machine will _____. 2. I don't know what's _____ him _____ – he's usually so friendly. 3. School _____ for Easter on 2nd April. 4. The robbers used iron bars to _____ the bank. 5. When she was told her mum was in hospital she _____. 6. Overseas students _____ more than £30 million a year in tuition fees. 7. They were threatening to _____ the government by withdrawing from the ruling coalition. 8. The water managed to _____ the flood barrier. 9. Sheila _____ her engagement last week. 10. The two countries have _____ diplomatic relations.11. Even though he didn't agree at first, we managed to _____ him _____ our point of view.

16. Translate into English using the right phrasal verb.

1. Ми працюємо над тим, щоб досягти тіснішої політичної інтеграції в ЄС. 2. За допомогою холодної води його незабаром привели до тями. 3. Коли я підняв питання фінансування, він швидко вставив, що це вирішено. 4. Дефіцит нафти спричинив енергетичну кризу. 5. Співачка нещодавно випустила другий альбом. 6. Він сподівався, що ця схема принесе чималі гроші. 7. Ви знали, що вони розірвали заручини? 8. Між демонстрантами та поліцією почалася бійка. 9. Минулої ночі переговори з лідерами бізнесу були зірвані. 10. Шестеро в'язнів втекли з в'язниці. 11. Він перервався на півслові, щоб потиснути руку новоприбулим. 12. Думка про те, що грабіжник проникне до нашого будинку, поки ми спимо, жахає.

17. Look at Appendix 3, then fill in the correct preposition.

1. The car went _____ **control** on the icy road. 2. Have you dialed the wrong number _____ **mistake**? 3. I know _____ **certain** he was lying. 4. I thought the meeting would have started _____ **now**. 5. Whether or not we should hire new staff is still _____ **discussion**. 6. You need to take a look ____ **the mirror**, your hair is in a

mess. 7. Throw those cakes away, they're _____ **date**. 8. There's no need to worry, the situation is _____ **control**. 9. Take care and keep ____ **touch**.

18. Look at Appendix 4, then choose the correct preposition.

1. After dessert Jenny **complained** *of/with/from* a stomachache. 2. I can't **deal** *with/on/about* this right now. I have too much on my mind. 3. Julie **complained** *at/to/with* the manager about the poor service at the restaurant. 4. I've been **dreaming** *with/for/about* this moment all my life. 5. The lorry lost control and **crashed** *with/into/at* a fire hydrant. 6. You shouldn't **care** *of/for/about* what those girls think.

19. Look at Appendix 4, then fill in the correct preposition.

1. When Phil **arrived** _____ the station, he bought a one-way ticket to York. 2. I **believe** ____ giving back to the community, that is why I volunteer. 3. David **accused** Mark _____ taking his leather jacket. 4. They finally **agreed** _____ a date for the wedding. 5. Guess who is **applying** to Oxford _____ a Master's degree in Education? 6. I am really **fed up** _____ your rude comments! 7. The frustrated man **insisted** _____ speaking to the bank manager. 8. The police want to **hear** _____ anyone who may know him. 9. Did you **hear** _____ the major's registration? 10. We all **laughed** _____ his joke. 11. I'm very sorry. I **mistook** you _____ someone else. 12. We **thanked** the Millers _____ letting us stay with them. 13. I **prefer** tea _____ coffee.

Text 2. THE INTERNET

Basic Vocabulary

TCP (Transmission Control Protocol) to plug	протокол керування передачею підключати	crucial freeware instant	вирішальний вільні програмні засоби миттєвий
expansion card versatile	плата розширення універсальний, багатоцільовий	lingo	малозрозумілий жаргон, професійна фразеологія
TV cable provider	провайдер кабельного телебачення	census	перепис (населення); збір даних

drastically	радикально, докорінно	gateway	міжмережевий перехід (інтерфейс), шлюз
power-line Internet	електромережі Інтернет	e-bahn, i-way	маг істральний канал передачі інформації
power plug	вилка живлення	to roam	шукати, мандрувати
freenet	мережа загального доступу	ARCHIE	спеціальна служба Інтернет для пошуку файлів на FTP серверах

The **Internet** is an International computer Network made up of thousands of networks linked together. All these computers communicate with one another; they share data, information, music, video and other resources. To do it they need to use the same language or protocol: **TCP/IP** (**Transmission Control Protocol/ Internet Protocol**) and every computer is given an address or **IP number**. This number is a way to identify the computer on the Internet.

To use the Internet, you basically need a computer, the right connection software and a modem to connect your computer to a telephone line and then access your **ISP** (**Internet Service Provider**).

The **modem** converts the digital signals stored in the computer into analogue signals that can be transmitted over **telephone lines**. There are two basic types: **external** with a cable that is plugged into the computer via a USB port, and **internal**, an expansion card inside the computer. A **PC card** modem is a different, more versatile option for laptops and mobile phones.

At first most computers used **a dial-up** telephone connection that worked through the standard telephone line. Now **a broadband** connection, a high data transmission rate Internet connection, has become more popular: either **ADSL** (**Asymmetric Digital Subscriber Line**), which allows you to use the same telephone line for voice and fast access to the Internet, or cable, offered by most TV cable providers.

The basic equipment has changed drastically in the last few years. You no longer need a computer to use the Internet. **Web TV** provides email and access to the Web via a normal TV set plus a high-speed modem. More recently, 3Generation mobile phones and PDAs, personal digital assistants, also allow you to go online with **wireless** connections, without cables.

Telephone lines are not essential either. **Satellites** orbiting the earth enable your computer to send and receive internet files. Finally, the **power-line Internet**, still under development, provides access via a power plug.

The Internet consists of many systems that offers different facilities to users.

WWW, the **World Wide Web**, is a widely used information system on the Internet, which provides facilities for documents to be connected to other documents by hypertext links, enabling the user to search for information by moving from one document to another.

E-mail, or electronic mail, is used for the exchange of messages and attached files.

Mailing lists or **listservs** is based on the programs that send messages on a certain topic to all the computers whose users have subscribed to the list.

Chat and **instant messaging** are the online exchange of messages in real time with one or more simultaneous users of a computer network; you type your messages on the keyboard.

Internet telephone is a system that lets people make voice calls via the Internet.

Video conferencing is a system that allows the transmission of video and audio signals in a real time so that participants can exchange data, talk and see one another on the screen.

File Transfer Protocol (**FTP**) is used to transfer files between computers.

Newsgroups are the sites where people send, read and respond to public bulletin board messages stored on a central computer.

TELNET is a program that enables a computer to function as a terminal working from a remote computer and so use online databases or library catalogues.

The Internet has entered every area of our life. 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, to anywhere, but also to friends around the globe. It has a language, which is more or less English.

Like all new worlds, Cyberspace has its own **lingo**, for example: *e-bahn, i-way, online, modem, freenet, web page, freeware, browser, gopher, archie, gateway*. There are words to describe people who **roam** the net: *netizen, internet surfers, spiders, geeks, netter, lurker*.

Now the Internet is being expanded and improved. If you have a computer or a computer terminal, some kind of connection to the Internet, and some kind of Internet service provider, you can participate in electronic communication and become a citizen of the global village.

Notes:

Slang, a type of language consisting of words and phrases that are regarded as very informal, are more common in speech than writing, and are typically restricted to a particular context or group of people. For example: **salty** = get upset or angry over something minor; **to ghost someone** = cut off communication with someone you're no longer interested in; **be shook** = be shocked or incredibly surprised; **to spill the tea** = to gossip; **hangry** = when you are so hungry that you are angry (h+angry).

There are some slang words in the text. Try to memorize them:

1. *Geek* (sl.) 1. людина, персона; 2. "комп'ютерна робоча конячка" (програміст, який вишукує помилки);

2. *Gopher* (sl.) розподілена запитово-пошукова система, яка забезпечує доступ до ієрархічних місць зберігання інформації в мережі Інтернет;

3. *netizen* (sl.) "мережанин" (активний користувач Інтернет – від net +citizen);

4. *lurker* (sl.) "спостерігач"; пасивний наглядач, який не бере участі в форумах;

5. *netter* (sl.) "мережевик" (той, хто має свою адресу в мережі).

EXERCISES

1. Read and translate the text. Learn the words from *Basic Vocabulary*.

2. Are the statements True or False? Correct any False statements.

1. The Internet and the World Wide Web are synonyms. _____ 2. Computers need to use the same protocol (TCP/IP) to communicate with each other. _____ 3. Web TV can provide access to the Net. _____ 4. ADSL and cable are two types of dial-up connections. _____ 5. External, internal and PC card are types of connections. _____ 6. Information can be sent through telephone lines, satellites and power lines. _____ 7. The computer IP number is a way to identify it on the Internet. _____ 8. Cyberspace is a universal community, with instant access only to information. _____ 9. The Internet has a language, which is more or less English. _____ 10. Cyberspace has its own lingo. _____ 11. If you have a computer connection to the Internet, and some kind of Internet service provider, you can become a citizen of the global village. _____

3. Look back in the text and find words that have a similar meaning to:

1. to compose _____

2. to convey _____

3. appliances _____

4. member _____

9. penetrate _____

11. Internet _____

13. world _____

5. to gain _____

6. to recognize _____

7. to link _____

8. many-sided _____

10. supply _____

12. immediate _____

14. wander _____

4. Look back in the text and find words that have an opposite meaning to:

1. combine _____

2. wrong _____

3. separation _____

4. unimportant _____

5. different _____

6. hardware _____

7. slightly _____

8. near _____

5. What do these abbreviations stand for?

TCP _____

USB _____

PDA _____

FTP _____

ISP _____

LDSL _____

WWW _____

6. Match the words with the definitions.

1. Cyberspace
2. access to information
3. census
4. gateway
5. lingo
6. freeware
7. browser

a) an official survey of the population of a country
b) software that is available free of charge
c) a device used to connect two different networks, especially a connection to the Internet
d) a piece of computer software that you use to search for information on the World Wide Web
e) the words that are mainly used by people who do a particular activity or job
f) to have the opportunity or right to see or use the data
g) the notional environment in which communication over computer networks occurs.

7. Match the words or phrases in two columns to form word combinations from the text:

1. to use the same
2. a way to identify the computer
3. to connect your computer
4. to convert the digital signals stored
5. a cable that is plugged
6. an expansion card
7. to use a dial-up
8. a high data transmission
9. to go online
10. to provide access
11. to search for information by
12. the exchange of
13. to make voice calls
14. the transmission of video

a) to a telephone line
b) messages and attached files
c) inside the computer
d) language or protocol
e) via the Internet
f) on the Internet
g) via a power plug
h) in the computer into analogue signals
i) rate Internet connection
j) with wireless connections
k) telephone connection
l) and audio signals in a real time
m) into the computer via a USB port
n) moving from one document to another

8. What Internet system should these people use?

1. 'I like receiving daily updates and headlines from newspapers on my computer.'

2. 'I'm doing some research and need computer access to the University library.'

3. 'I'd like to avoid flying to Japan to attend the meeting but I want to see what's going on there.'

4. 'I want to read people's opinions about environmental issues and express my views.'

5. 'I have designed a web page and want to transfer the data to my reserved web space.'

6. 'I'd like to check my students' draft essays on my computer and send them back with my suggestions.'

7. 'I don't want to spend too much money on international phone calls but I love hearing his voice.'

8. 'I live in a small village where there are no other teenagers. I wish I had the chance to meet and chat with friends.'

9. Choose the right word:

The Internet is like a huge city, full (0)__**B**__ many different kinds of places and people. As a real city, there are certain places which are (1) _____ for youngsters and others which need to be avoided.

The internet neither belong to nor is controlled by any one person, organization or government. It gives all of us the (2) _____ to create material for others to see. On the other hand, as in ordinary life, there are those who might use it for illegal (3) ____. The freedom of the Net (4) ____ exciting opportunities for youngsters and, by being (5) ____ of the possible dangers and (6) ____ steps to avoid them, they can happily explore that online world in safety.

(7) _____ sense will certainly help children to use the Internet safely. It is preferable, for example, for parents to (8) _____ to know who their children are meeting online and make sure they never (9) _____ out personal information about themselves. Although it is an excellent tool for learning, playing and communicating with others, youngsters should not be allowed to become so (10) _____ that they forget other activities important to their development. Obviously, surfing as a family activity is the best solution, so that any problems that are found can be discussed together. Parents need to think about safety issues and (11) _____ on a set of rules. Just as youngsters are given instructions on road safety, they also need to be instructed on how to travel safely (12) _____ that superhighway.

	A	**B**	**C**	**D**
0	with	**of**	in	from

1	right	suited	fitting	suitable
2	opportunity	ability	capacity	probability
3	methods	causes	purposes	reasons
4	supplies	offers	suggests	supposes
5	known	aware	mindful	warned
6	putting	doing	making	taking
7	Simple	Ordinary	Common	Normal
8	get	let	make	force
9	put	give	make	take
10	connected	involved	joined	connected
11	accept	agree	approve	coincide
12	along	out	across	wide

10. Choose the correct alternatives to complete the text:

Sharing your broadband connection with your neighbours is either the best way of making friends or the fastest way to lose them. Thanks to new European legislation, (1) *modem / wireless / telephone* technology and a firm called MyZones, several households within 300 metres of each other can now share the cost of fast (2) *broadband / dial-up / phone* access. But the more people are using your network, the slower it gets. If four people are using it at once, the surfing speed is 128k. Clove Mayhew-Begg, chief executive of MyZones, says: 'Sharing broadband is just the start of a new generation of consumer-based Internet services.' It starts on July 25 when MyZones will start selling £150 starter kits. These include a wi-fi (wireless technology) point and ADSL (3) *3G / modem / Web TV* but not the wi-fi adapters you and your neighbours will need. These will cost an extra £60 or so for each computer logged on to the wireless network.

11. Read the text and fill in the missing words from the box:

"world wireless system"	ARPANET	"node-to-node"
World Wide Web	"information superhighway"	"packet switching"
"Intergalactic Network"	"network of networks"	

Who Invented the Internet?

The internet was the work of dozens of pioneering scientists, programmers and engineers who each developed new features and technologies that eventually merged to become the (1) _____ we know today.

Nikola Tesla toyed with the idea of a (2) _____ in the early 1900s.

In the early 1960s, MIT's J.C.R. Licklider popularized the idea of an (3) _____ of computers. Shortly thereafter, computer scientists developed the concept of (4) _____, a method for effectively transmitting electronic data that would later become one of the major building blocks of the internet.

The first workable prototype of the Internet came in the late 1960s with the creation of (5) _____. Funded by the U.S. Department of Defense, it used packet switching to allow multiple computers to communicate on a single network.

On October 29, 1969, ARPAnet delivered its first message: a (6) _____ communication from one computer to another.

ARPANET adopted TCP/IP on January 1, 1983, and from there researchers began to assemble the (7) _____ that became the modern Internet. In 1990, computer scientist Tim Berners-Lee invented the (8) _____. The web is actually just the most common means of accessing data online in the form of websites and hyperlinks. It served as a crucial step in developing the vast trove of information that most of us now access on a daily basis.

(adapted https://www.history.com/news/who-invented-the-internet)

12. Translate into English:

1. Мій комп'ютер має мережевий інтерфейс, який дозволяє мені підключатися до інших комп'ютерів. 2. Чи можна підключитися до Інтернету через звичайну телефонну лінію? 3. Цей гаджет «три в одному» живиться від USB-порту вашого ПК. 4. Широкосмуговий доступ до Інтернету пропонує багато переваг. 5. Плата розширення дає змогу додати нову функцію до комп'ютера. 6. Укажіть частоту синхронізації під час використання бездротового з'єднання. 7. Електронна пошта забезпечує спосіб надсилання повідомлень від

людини до людини майже миттєво. 8. Відеоконференція за допомогою Skype може замінити відрядження. 9. Нове обладнання зв'язуватиме транспортні засоби через супутник із їхнім офісом. 10. Програма є безкоштовною та працює на платформах Windows. 11. Об'єм ресурсів та послуг, які є частиною WWW, зростає дуже швидко. 12. Інтернет може також використовуватись для розваг. 13. Ви отримуєте доступ до ресурсів Інтернету через інтерфейс або засіб, який називається веб-браузер. 14. Користувачі спілкуються через електронну пошту, дискусійні групи, чат-канали та інші засоби інформаційного обміну. 15. Молоді люди проводять багато часу в Інтернеті.

13. Answer the following questions on the text:

1. What is the Internet? 2. What is IP number used for? 3. What do you need to use the Internet? 4. What is the function of the modem? 5. What two types of modems are there? 6. What type of modem is used for laptops and mobile phones? 7. What connection did most computers use in the past? 8. What connection is more popular nowadays? 9. Do you still need a computer to use the Internet? 10. How does Web TV provide e-mail and access to the Web? 11. What do 3Generation mobile phones and PDAs allow you to do? 12. What facilities do the Internet systems offer to users? 13. What Internet facilities do you use? Speak on some of them. 14. What areas of life does the Internet provide an entry to? 15. What is Cyberspace? 16. What is your attitude to the lingo? Do you use these words when speaking with your friends? 17. What does it mean to be a citizen of the global village? 18. How long are you in the net? What do you like or dislike with it?

14. Retell the text using your active vocabulary.

15. A) Look at Appendix 2, then fill in the correct particle.

1. The police **held** _____ the fans who were trying to get onto the football pitch. 2. We arrived an hour late because we were **held** _____ in traffic. 3. Could you **hold** _____, please? Mrs Jones' line is engaged at the moment. 4. The gang **held** _____ a security van and got away with millions. 5. I didn't

mean to buy so much but I got **carried** _____. 6. Despite the difficulties, we managed to **carry** _____ the project. 7. They **carried** _____ a survey to find out which TV channel was the most popular. 8. **Carry** _____ that job until I give you something else to do.

B) Look at Appendix 2, then choose the correct particle.

1. Could you please **look** *for/over/forward to/after* this contract. If you agree? Sign it. 2. Ann has a nanny to **look** *over/through/after/into* her children while she is at work. 3. **Look** *through/up/into/out for* poisonous mushrooms. 4. We must **look** *up to/over /into/down* on this problem and find out its cause. 5. We are all **looking** *for/ forward to/up to/in on* Christmas. 6. I've always **looked** *down on/up to/forward to/ out for* Bill for his courage and determination. 7. **Look** *up/over/through/for* all the unknown words in the dictionary. 8. **Look** *for/after/through/into* this magazine and find the problem page. 9. Detectives are still **looking** *after/for/out for/up* the escaped prisoner. 10. Mr. Garcia **looks** *up to/out for/down on/down* anyone who hasn't had a college education.

16. Paraphrase the italicized expressions using the phrasal verb *look*:

1. People don't *take care of* other people's property in the same way as they do of their own. 2. I'm *searching for* a child. I believe your husband can help me find her. 3. I wasn't successful, so they *despised* me. 4. He was *anticipating* working with the new Prime Minister. 5. I *found out* your address in the personnel file. 6. Can you *visit* Eileen *on your way home* and see if she needs anything from the supermarket? 7. He could have *examined* the papers in less than ten minutes. 8. You're a popular girl, Grace, and a lot of the younger ones *respect* you. 9. Peter starts *examining* the mail as soon as the door shuts. 10. Police are *investigating* the disappearance of two children.

17. Translate into English using the right phrasal verb.

1. Вибачте, я запізнився, але мій поїзд затримали. 2. Менеджер попросив його зачекати, поки він перевірить інформацію. 3. І хоча це не привід захоплюватися, але підстави для оптимізму є. 4. Його старший син Йосип

продовжив традиції батька. 5. Обидва актори мають сильну впевненість у собі, необхідну для виконання цих ролей. 6. Жодна сила на землі не може стримати прогрес суспільства. 7. Будівельні роботи виконував місцевий підрядник. 8. Минулого тижня озброєний нападник захопив сільський магазин. 9. Я люблю доглядати за дітьми. 10. Я поїхав до Києва у пошуках місця роботи. 11. Вони представили свій проект президенту, який його переглянув і підписав. 12. У той час він випадково переглядав медичну книгу «Анатомія Грея». 13. Він багато працював і з нетерпінням чекав своєї пенсії. 14. Я переглянув усі свої документи, але досі не можу знайти договір. 15. Я пообіцяв відвідати тата і переконатись, що йому краще. 16. Він шукає гарну квартиру в центрі міста. 17. Він потребує поради людей, яких він поважає.

18. Look at Appendix 3, then fill in the correct preposition.

1. Did you get here ___ **train**? 2. The police placed him _____ **arrest**. 3. That area is ____ **limits** to the public. 4. I was in China ____ **business** last year. 5. The numbers were chosen completely ____ **random**. 6. ____ the **border** of the country they check your passport. 7. My car is _____ the **road** at the moment; it's being repaired. 8. I'm afraid I can't help as I'm really _____ **touch** with this area of research. 9. The multi-storey car park has been _____ **construction** for six months.

19. Look at Appendix 4, then fill in the correct preposition.

1. Since the skiing accident Mark **suffers** _____ lower back pain. 2. Don't **waste** any more time _____ the broken door handle. I'll fix it later. 3. Most fairy tails **begin** _____ 'Once upon a time'. 4. Let's **invite** the Browns _____ dinner. 5. She **dreams** _____ a world without crime or war. 6. Please, don't **shout** _____ me. 7. Tina begged me to **forget** _____ what had happened. 8. Lucy **spends** a lot of money _____ clothes. 9. How do you **account** _____ the mistake in my electricity bill?" she asked the clerk. 10. That man is **staring** _____ us! Do you know him? 11. The factory workers were **threatened** _____ losing their jobs. 12. Can you please **deal** _____

the customer? 13. He can't change his situation, can he? – No, he'll just have to **live** _____ it.

Text 3. NETWORK SECURITY

Basic Vocabulary

connectivity	зв'язність	malicious	зловмисний
confidentiality	конфіденційність	threat	загроза
to implement	здійснювати, виконувати	malware	шкідливе програмне забезпечення
availability	наявність	to detect	виявляти
objective	мета, ціль	vulnerability	уразливість
susceptibility	вразливість	authentication	ідентифікація
to emanate from	походити	to segment	ділити на сегменти
firewall	міжмережевий екран, брандмауер	integrity to filter out	цілісність відфільтрувати

An organization's constant **connectivity** to the Internet exposes it to a hostile environment of rapidly evolving threats. In addition, employees can intentionally or unintentionally threaten the network because of their actions.

Network security refers to any activities designed to protect the **confidentiality**, **integrity**, and **availability** of the network, as well as the information assets that rely upon it. In general, network security has three fundamental **objectives**:

• To protect the network itself;

• To reduce the **susceptibility** of computer systems and applications to threats originating from the network;

• To protect data during transmission across the network.

Cybercriminals are continuously searching for weaknesses in an organization's Internet-facing network protection devices (e.g. firewalls). These devices protect an organization from threats that **emanate** from the Internet. Without a **firewall** at the network perimeter to protect an organization's network from Internet-based **threats**, cyber criminals could easily steal intellectual property and sensitive information.

A multi-layered defense comprised of next-generation firewall will substantially reduce the number of successful Internet-based attacks on an organization's internal network.

The following are recommendations for network security:

• Purchase a next-generation firewall. These firewalls include the following additional security services:

    a. **Filtering out** web sites containing **malicious** content.

    b. Protection from Internet-based viruses and from other **malware** entering the network.

    c. Threat prevention technology that examines network traffic flows **to detect** and prevent Internet-based **vulnerabilities** from entering the network.

• Require two-factor **authentication** for all remote login access such as via a VPN.

• **Segment** the organization's internal network to limit access by users to only those services that they require for business use.

• **Implement** a Network Access Control solution to prevent unknown computer systems from communicating with the organization's network.

• **Establish** a baseline of normal network device behaviour.

EXERCISES

1. Read and translate the text. Learn the words from *Basic Vocabulary*.

2. Are the statements True or False? Correct any False statements.

1. An organization's constant connectivity to the Internet exposes it to a friendly environment of rapidly evolving threats. _____ 2. Network security has three fundamental objectives. _____ 3. Firewalls protect an organization from threats that emanate from the Internet. _____ 4. With a firewall at the network perimeter cyber criminals could easily steal intellectual property and sensitive information. _____ 5. Threat prevention technology does not examine network traffic flows. _____ 6. Network Access Control prevents unknown computer systems from communicating with the organization's network. _____ 7. For network security, purchase a current-generation firewall. _____

3. Look back in the text and find words that have a similar meaning to:

1. to apply _____

2. to come from _____

3. identification _____

4. aim _____

5. vicious _____

6. to divide _____

4. Look back in the text and find words that have an opposite meaning to:

1. safety _____

2. absence _____

3. publicity _____

4. detachment _____

5. friendly _____

6. division _____

5. Give Ukrainian equivalents for the following word combinations from the text:

hostile environment; to filter out web sites; threat prevention technology; to steal intellectual property; information assets; additional security services; to refer to any activities; recommendations for network security; Internet-based viruses; remote login access.

6. Match the words or phrases in two columns to form word combinations from the text:

1.	constant connectivity	a)	Internet-based attacks
2.	Implement a Network	b)	sensitive information
3.	to reduce successful	c)	two-factor authentication
4.	protect the confidentiality, integrity,	d)	to the Internet
5.	to steal	e)	from the Internet
6.	include additional	f)	Access Control solution
7.	to require	g)	internal network
8.	segment the organization's	h)	and availability of the network
9.	threats that emanate	i)	security services

7. Fill in the proper term from the text:

1. _____ the ability of computers and other types of electronic equipment to connect successfully with other computers or programs;

2. _____ a system that keeps computer information safe by checking who the user is and checking that the information has not been changed;

3. _____ software such as a virus that is designed to damage or destroy information on a computer;

4. _____ a computer program that prevents people from entering a computer system illegally and stealing information or causing damage;

5. _____ the quality of being complete or whole, without any missing parts;

6. _____ something that someone has created or invented and that no one else is legally allowed to make, copy, or sell;

7. _____ someone who commits crime using the internet.

8. Read the text "Wireless Network Security" and fill in the missing words from the box.

intellectual property	wired security perimeter safeguards	to mitigate
Wireless networks	wireless access points	unrestricted access
security risks	to penetrate attackers	firewalls

Wireless Network Security

While wireless connectivity has the advantage of increased mobility and productivity, it also introduces a number of critical (1) _____ and challenges. In many high-profile cases, thefts of (2) _____ and sensitive information have been initiated by (3) _____ that gained wireless access to organizations from outside the physical building. Wireless signals bypass traditional (4) _____ such as (5) _____ and Intrusion Protection Systems.

In some cases, cyber criminals have gained (6) _____ to an organization's internal network by installing hidden, unauthorized (7) _____ on the network. Disgruntled employees or other personnel with malicious intent, under the guise of cleaning staff or a security guard, are typically responsible for planting these devices. (8) _____ have made it exponentially easier for cyber criminals (9) _____ organizations without physically stepping foot inside a building. As a result, it is critical that strong security safeguards be implemented (10) _____ these risks.

9. Translate into English using your active vocabulary:

1. Дуже важко розправитися (to crack down) з кіберзлочинцями, тому що в Інтернеті легко робити щось анонімно з будь-якої точки земної кулі. 2. Нова технологія повинна забезпечувати безпечний брандмауер від хакерів. 3. Наявність комп'ютерів значно допомагає всьому процесу. 4. Без брандмауера на периметрі мережі кіберзлочинці могли б легко викрасти інтелектуальну власність і конфіденційну інформацію. 5. Багаторівневий захист значно зменшить кількість успішних атак через Інтернет на внутрішню мережу організації. 6. Безпека мережі стосується будь-яких дій, призначених для захисту конфіденційності, цілісності та доступності мережі. 7. Шкідливе програмне забезпечення може приймати форму вірусів, рекламного або шпигунського програмного забезпечення. 8. Користувачі мережі можуть фільтрувати небажані листи за допомогою програмного забезпечення.

10. Retell the text using your active vocabulary.

11. Look at Appendix 2, then fill in the correct particle.

1. They have finished **doing** _____ their old summer house and are having a party to celebrate. 2. After working a 16-hour day, I could surely **do** _____ some sleep. 3. I don't have any sugar so you'll have to **do** _____.4. People thought that the use of robots would **do** _____ boring low-paid jobs. 5. I know you don't like him, but there's no need to keep **doing** him _____ in front of the boss. 6. I don't eat breakfast but I **make** ____ ____ it at lunch. 7. When you are a boss you can **make** _____ your own rules. 8. Special arrangements can be **made** _____ disabled students. 9. Constant arguing doesn't **make** _____ a happy marriage. 10. They moved on to a larger farm and in time **made** it _____ to Francis.

12. Look at Appendix 2, then choose the correct particle and comment on the meaning of the phrasal verbs.

1. **Do** *up/away* with your seatbelts or I won't start the car. 2. I can really **do** *without/away* with another crazy reality show. 3. I don't agree with the death penalty.

I think they should **do** *without/away* with it. 4. You shouldn't **do** your parents *up/down*. 5. I've still got a few Christmas presents to **do** *with/up*. 6. I need to have my eyes checked; I can't **make** *up/out* what that sign says. 7. He bought her some flowers to **make** up *for/off/over* his bad behavior. 8. Tom was your best friend before the fight; I think you should try to **make** *over/up*. 9. They are **made** *up to/for* each other; I'm sure they'll get married. 10. Before he died, he *made* his estate *up for/over* to his wife.

13. Look at Appendix 3, then choose the correct preposition.

1. It was such a nice day that Alice went *on/for/by* **a walk** in the park. 2. *At/On/In* **the moment**, he is filling in university application forms. 3. Is somebody *on/in/at* **the door**? 4. We waited for Frank *to/at/on* **the station** for nearly an hour. 5. Susan, *at/for/by* **once**, please be quiet and let him speak. 6. I know the national anthem *by/at/on* **heart**. 7. Questions will be answered *at/for/in* **the end** of the presentation. 8. *At/For/By* **the time being**, Dave is going to continue singing in the band. 9. I'm sorry. I took your textbook *on/in/by* **mistake**. 10. How long were you waiting *for/in/at* **the bus stop**?

14. Look at Appendix 4, then choose the correct preposition.

1. The interviewer was **curious** *for/about/of* Kevin's volunteer experience. 2. After the World Cup game the streets of Brasilia were **crowded** *of/with/by* fans. 3. "Be **careful** *of/for/by* what you say," he warned. 4. Terry has a job and is **capable** *for/in/of* living on his own. 5. Leonardo Da Vinci is **famous** *for/of/about* painting the Mona Lisa. 6. She's **excellent** *in/on/at* making things out of clay. 7. I asked Tom if he was **bored** *with/of/about* his present job. 8. Violence is **characteristic** *of/from/to* many TV programs these days. 9. My elder sister is a lot more **experienced** *on/about/in* computing than I am. 10. He was very **pleased** *with/about/of* his effort. 11. How could you be **jealous** *of/for/by* her? You're much more beautiful.

GRAMMAR
FUTURE FORMS

Form	Meaning	Example	Time expressions
Future Simple (will + bare infinitive)	1. *decisions made at the moment of speaking*	*It's getting dark.* I'**ll turn** *on the light.*	
	2. *Predictions about the future, based on what we think, believe or imagine, using the verbs* **think, believe, expect**, *etc.; the expressions* **be sure, be afraid**, *etc.; and the adverbs* **probably, certainly, perhaps**, *etc.*	*I'm afraid* **I'll be** *a little late.* **I'll probably buy** *the dress.* *In the future people* **will probably live** *on other planets.*	tomorrow, the day after tomorrow, tonight, soon, next week/month, next year/summer, in a week, in a month, etc.
	3. *promises, threats, warnings, requests and hopes*	**Will** *you* **open** *the window, please?*	
	4. *for a future fact*	*The Queen* **will be** *in Paris tomorrow.* *She*'**ll be** *18 next week.*	
	5. *actions, situations and events which will definitely happen in the future and which we can't control.*		
	6. *to make an offer* **shall** *(instead of* **will***) is used*	**Shall** *I* **do** *the washing up? (= Do you want me to do the washing up?)*	
	7. *to ask for suggestions or instructions*	*Where* **shall** *I* **put** *your books?* *What* **shall** *we* **do** *tonight?*	
Be going to	1. *actions intended to be performed in the near future*	*She* **is going to** *visit her parents tomorrow.*	
	2. *planned actions or intentions*	*Now that they have settled in their new house,* **they are going to** *have a party.*	
	3. *evidence that something will definitely happen in the near future*	*Look at the dark clouds in the sky! It*'**s going to** *rain.*	
	4. *things we are sure about or we have already decided to do in the near future*	*He* **is going to** *be promoted. (The boss has decided to do it.)*	
Future Continuous	1. *to say that something will be in progress at a stated future time*	*He'**ll be sunbathing** in Hawaii this time* **next week**.	
	2. *for actions which will definitely happen in the future as a result of a routine or arrangement*	*She* **will be waiting** *for us at the cinema* **at seven o'clock.**	

	3. when we ask politely about someone's plans for the near future	*Will* you *be going* out today? – Yes, why?	
Future Perfect (will + have + Ved)	*actions that will have finished before a stated future time*	*She* **will have come** *back by the end of July.* *She* **won't have finished** *the work* **until** *8 o'clock.*	before, by, by then by the time, till/ until/ (only in negative sentences).
Future Perfect Continuous	*to emphasise the duration of an action up to a certain time in the future*	**By** *the end of this year she* **will have been working** *here* **for two years**.	
Present Simple	*referring to timetables or a fixed event.*	*The plane* **reaches** *London at 9.00 sharp.* *The party* **begins** *at 8 pm.*	
Present Continuous	*for fixed arrangement in the near future* common verbs: **meet, play, come, go, see, fly, stay, have, leave, arrive**	*Sally* **is seeing** *her dentist this week. (She has fixed an appointment.)* *I'*m **having** *a party* **on Saturday**. *(I've invited all the guests so it is already arranged)*	

1. Match the following sentences with the correct tense description.

1.	Look out! The dog is going to bite you.	a.	fixed arrangement in the near future
2.	I'll be flying to Brazil this time tomorrow.	b.	action which will be finished before a stated future time
3.	She is worried that he'll be angry.	c.	timetable
4.	By May she'll have been living abroad for five years.	d.	fear about the future
5.	The Kyiv train arrives at 6.00.	e.	evidence that something will definitely happen in the near future
6.	The men are delivering the furniture tomorrow.	f.	future intention
7.	When I'm older, I'm going to learn to drive.	g.	action in progress at a stated future time
8.	I think I'll go home now.	h.	duration of an action up to a certain time in the future
9.	He'll have finished the work by tomorrow afternoon.	i.	action intended to be performed in the near future
10.	Will you be staying with us this Easter?	j.	on-the-spot decision
11.	I'm sure you'll have a wonderful holiday.	k.	something we are not sure about yet
12.	She'll probably come early.	l.	polite enquiry about people's arrangements

13.	I'm going to buy a new car tomorrow.	m.	prediction about the future

2. Underline the correct item.

1. I **am taking**/**take** the 5 o'clock train to Kyiv tomorrow. 2. This time tomorrow, I **will be hiking**/**will hike** in the Lake District. 3. Tom **will have thought**/**thinks** of a solution by the time we see him. 4. They can't say exactly when, but they **will have been finishing**/**will have finished** the job by Thursday. 5. By September, they **are working**/**will have been working** on the new road for two years. 6. Liam **won't have been writing**/**won't have written** his report until after lunch. 7. Chris thinks she **will be earning**/**will have earned** more money soon. 8. **Do you go**/**Will you be going** to the supermarket later? Could you pick up some rice for dinner, please? 9. Beth and I **watch**/**will be watching** a film this evening. 10. We'**re having**/**have** a party at the weekend. Come along! 11. I wonder if he **will talk**/**talks** to me again. 12. The football match **starts**/**will be starting** at 10 o'clock. 13. I **will have finished**/**will finish** my exams by the end of June. 14. If we **go**/**will go** to Greece in the summer, we **will visit**/**visit** the islands. 15. We can't get into the office until Jane **arrives**/**will arrive** with the key.

3. Match the sentences and fill in the correct tense.

1.	She'll call us	a.	until it _____(stop) raining.	1.	
2.	I don't know	b.	as soon as I _____(can).	2.	
3.	What _____ (you do)	c.	if you _____(come) home late.	3.	
4.	Turn the light off	d.	as soon as she _____(reach) Paris.	4.	
5.	Don't go out	e.	if you have an accident?	5.	
6.	I _____(write) to you	f.	what _____(you/buy)?	6.	
7.	He will be angry	g.	when he _____(leave).	7.	
8.	If I give you $5,	h.	before you _____(go) to bed.	8.	

4. Put the verbs in brackets into Future Perfect or Future Perfect Continuous.

1. By 5 pm they _____ (play) football for three hours. 2. By next summer, we _____ (build) the bridge. 3. I _____ (redecorate) the room

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before you return from your trip. 4. By the end of the year we _____ (live) in Australia for four years. 5. The train _____ already _____ (leave) by the time we arrive. 6. By the time my mother comes home, we _____ (play) computer games for two hours. 7. Tom _____ (write) his third novel by the end of this year. 8. By the time he arrives in Kyiv, Alex _____ (drive) for five hours. 9. This film _____ probably _____ (not finish) until midnight. 10. How long _____ you _____ (study) English by the end of this term? 11. By 5 o'clock I _____ (do) this crossword puzzle for three hours. 12. He hopes he _____ (make) a million pounds by the time he is thirty-five. 13. I _____ (read) the book by tomorrow night. 14. By Friday I _____ (work) on this project for two weeks. 15. Hopefully, he _____ (cook) dinner for us by the time we get home.

5. Fill in: will or be going to.

1. We don't have any bread. – I know, I _____ get some from the shop. 2. We don't have any bread. – Really? I _____ get some from the shop then. 3. Why do you need to borrow my suitcase? – I _____ visit my mother in Scotland next month. 4. I'm really cold. – I _____ turn the heating on. 5. Are you going to John's party tonight? – Yes. Are you going too? I _____ give you a lift. 6. What are your plans after you leave university? –I _____ work in a hospital in Africa. I leave on the 28th. 7. (The phone rings) I _____ get it! 8. Are you ready to order? –I can't decide… OK, I _____ have the steak, please. 9. Are you busy tonight? Would you like to have coffee? – Sorry. I _____ work in the library. I've been planning to study all day. 10. Why are you carrying a hammer? – I _____ put up some pictures.

6. Fill in *will*, *to be going to* or the *Present Continuous*.

1. My father _____ (go) to Australia next week. 2. What are your plans for the future? – I _____ (start) an IT course! 3. I don't think schools

_____ (change) very mach in the next few years. 4. Our computer broke down yesterday, so we _____ (buy) a new one soon. 5. Look at that man on the bridge! He _____ (jump)! 6. I think that people _____ (live) on the moon by 2050. 7. Peter is not studying hard enough. He _____ (fail) his exams. 8. The sun is shining and the sky is so blue. It _____ (be) a nice day. 9. The phone is ringing! – OK, I _____ (answer) it! 10. I hope robots _____ (do) the housework in the future. 11. I can't find my glasses! – Don't worry, I _____ (help) you find them. 12. Those cars are going too fast! They _____ (crash). 13.I'm going out. Do you want to come with me? – Why not? I _____ take my sweater. 14.Mum, can I go out now? I promise I _____ (do) my homework later! 15. It's Diana's birthday tomorrow! – What _____(buy) her? 16. My daughter _____ (be) 15 on May 2nd!

7. Choose the correct item.

Dear Sally,

You won't believe where I (1) _____ next month. This time next month I (2) _____ to southern California for a one-month student exchange trip. By the time I get to California, I (3) _____ for 11 hours, but I have a feeling I (4) _____ bored on the plane with all the great films they show.

    I (5) _____ forward to meeting my host family. I (6) _____ at their home in Sherman Oaks which is not far from the beach. So, I (7) _____ my afternoons either swimming, snorkeling or surfing. The boys go to a nearby state school, which I (8) _____ during my time there. By the end of the month, I (9) _____ many of their theme parks, museums and aqua parks. I (10) _____ on visiting Disneyland and Universal Studios.

    Anyway, I certainly don't know what it'll be like until I get there. So, I promise to write to you then.

    Bye for now,

    Ann

1. A) go	B) will have gone	C) will have been going	D) am going
2. A) will fly	B) will have flown	C) will be flying	D) will have
3. A) will travel	B) will have been travelling	C) will be travelling	D) will be
4. A) won't be	B) won't have been	C) am not being	D) am not
5. A) will look	B) will have been looking	C) am looking	D) going to look
6. A) will be staying	B) will have stayed	C) going to stay	D) stay
7. A) spend	B) will have spent	C) will be spending	D) going to spend
8. A) attend	B) will have attended	C) will be attending	D) will have been
9. A) visit	B) will have visited	C) will have been visiting	D) am visiting
10. A) will also plan	B) will also have planned	C) also going to plan	D) am also planning

8. Open the brackets. Use Future Simple, Future Continuous, Future Perfect, Future Perfect Continuous.

1. I _____ (play) tennis tomorrow afternoon. 2. Do you think you will pass the exam? – I hope so. I _____ (revise) for it for two weeks when I take it. 3. I _____ (tell) you everything when I go back. 4. I suppose the concert _____ (finish) by 6 o'clock. 5. By tomorrow morning, I _____ (leave) already. 6. This time next week we _____ (lie) on the beach in Egypt. 7. Ann _____ (wait) for us at the theatre at 6 o'clock. 8. We could buy Lisa a new piano for her birthday. – Good idea. When she turns twenty, she _____ (play) the piano for twelve years. 9. I _____ (water) the plants at 9 o'clock tomorrow morning. 10. Next month we _____ (be) married for 25 years. 11. Tomorrow at 9 o'clock she _____ (write) a very important exam. 12. Your French is not perfect. – Don't worry. I _____ (learn) it for a year by the time I leave for France. 13. Don't phone me between 8 am and 12 pm. I _____ (work). 14. John is very upset today. I _____ (try) to talk to him. 15. By the end of the week he _____ (spend) all his money. 16. Sorry. But I can't come at 5.

I _____ (play) football with my mates. 17. I think she _____ _____ (pass) tomorrow's exam. 18. I can visit you at 5. We _____ _____ (finish) the game by then. 19. In half an hour everybody _____ (watch) the film. 20. _____ Julia _____ (have) her passport by the time we get the plane ticket?

9. Translate into English using Future forms.

1. Я отримаю візу до вересня. 2. Результати оголосять завтра вранці. 3. Коли я прийду до школи, урок вже буде тривати 15 хвилин. 4. Завтра з 10 до 12 ранку я буду готуватися до екзамену. 5. Поки діти прокинуться, я приготую сніданок. 6. Вона закінчує університет в червні. 7. Ти будеш чекати її, коли сьогодні ввечері прибуде її літак? 8. Наступного тижня мої батьки святкують золоте весілля. 9. Він збирається мити машину? 10. Цей день я запам'ятаю на все життя. 11. Вона повертається в понеділок. 12. Як тільки вона навчиться друкувати, я влаштую її на роботу. 13. Ви не забули забронювати місця? – О ні, я забув. Зараз я їм зателефоную. 14. Якщо я продовжу свою дієту, я схудну на 10 кілограмів до кінця місяця. 15. Ліфт не поїде, доки ви не натиснете цю кнопку. 16. До кінця цього року він навчатиметься тут п'ять років.

REPORTED SPEECH

Tense changes in reported speech

Original words	Reported statement
Present simple 'We **work** for a big law firm in the city.'	Past simple They said they **worked** for a big law firm in the city.
Present continuous 'I**'m reading** a book.'	Past continuous She said she **was reading** a book.
Past simple 'He **decided** to accept the offer.'	Past perfect He said he **had decided** to accept the offer.
Past continuous 'I **wasn't telling** the truth.'	Past perfect continuous She admitted she **hadn't been telling** the truth.
Present perfect simple 'My friend **hasn't come** yet'.	Past perfect simple She said her friend **hadn't come** yet.
Present perfect continuous 'I**'ve been waiting** for ages.'	Past perfect continuous He complained (that) he **had been waiting** for ages.
be going to 'I**'m going to** stay at home tonight'.	was/were going to She said she **was going to** stay at home that night.
Most modal verbs (**can, will, must**)	**could**, **would**, **had to**

'I **can't** say any more.'	She added that she **couldn't** say any more.
'You **must** stop smoking'.	The doctor said that I **had to/must** stop smoking.
'The results **will** be later'.	He said that the results **would** be later.
Some verb forms don't change Past Perfect: 'I **hadn't met** your sister before.' Modal verbs: **could**, **would**, **should**, **mustn't**. 'We **could** go to France for the day.' 'You **mustn't** talk during the exam.'	He said (that) he **hadn't met** my sister before. Helen suggested that we **could** go to France for the day. He insisted (that) we **mustn't** talk during the exam.

Other changes in reported speech

Pronouns and possessives		Words for time and places	
direct	reported	direct	reported
I	he/she	today	that day
me	him/her	tonight	that night
my	his/her	tomorrow	the next day / the following day
mine	his/hers	next week/month, etc.	the next / the following (week, month, etc.)
you	I/we	ago	before
your	my/our	yesterday	the day before / the previous day
yours	mine/ours	last (week, month, etc.)	the last / the previous (week, month, etc.)
we	they	now	then
us	them	here	there
our	their	this (place)	that (place)
ours	theirs		

10. Transform direct statements into reported speech.

1. 'I have something to show you,' I said to her. 2. I'm going away tomorrow, mother,' he said. 3. 'I've been in London for a month but I haven't had time to visit the Tower,' said Rupert. 4. 'I'll come with you as soon as I am ready,' she replied. 5. 'I wrote to him the day before yesterday,' she said. 6. 'If you saw my father, you'd recognize him at once,' she said to me. 7. 'I was intending to do it tomorrow,' he said. 8. 'I can't live on my basic salary,' said Peter. 9. 'My younger brother wants to be a tax inspector,' said Mary. 10. 'He isn't at home,' said Ann. 'He left two days ago.' 11. 'I was thinking of going by bus,' said Paul. 12. 'Our team hasn't been doing very well lately,' said John. 13. 'The government has made the right decision,' claimed the Prime Minister. 14. 'Sarah would love a holiday,' thought Mark. 15. 'I must finish this report,' said Sarah. 16. 'I'm going to postpone the examination,' announced Prof. Williams. 17. 'I need to go to the supermarket before it closes,' remembered Janet.

11. Match the sentences with an appropriate reporting verb.

1. 'If you do it again, I'll leave,'   a) she whispered.

2. 'I'm now going to read out the results,'   b) he answered.

3. 'Could you bring me the wine list?'   c) she shouted.

4. 'Of course, I'll bring it right away,'   d) she threatened.

5. 'Our team will easily beat you,'   e) she announced.

6. 'Please, give me another chance,'   f) he claimed.

7. 'Shhh! The baby's sleeping,'   g) he asked.

8. 'I'm innocent of all the charges,'   h) she begged.

9. 'First of all, you press the button,'   i) he boasted.

10. 'Careful! The water's deep!'   j) he explained.

12. Read the text and find the odd words.

I think the interview went well. He wanted to know whether a number of things about me and what I had been doing in the last few years. First, he asked me if I have had had a nice trip down from Manchester and how long it had been taken be to get there. He also wanted to know whether or it had been snowing in Manchester. The chitchat over, he asked from me how old I was and where I was born although I had sent him my CV by post. He then asked how long I had lived in Manchester and I told him. His next question was the whether I was married and whether I had a family or not. I explained him that I was separated and that I had one daughter. He asked me how long did I had worked as an editor and how much I was had being paid in my present job. He asked me what was I liked most about my job and who had told me about their company. The main questions he asked me were about the qualities of a good manager. Finally, he asked how much have I expected to be paid. I think the interview went very well.

13. Change the following into indirect questions beginning with the words given.

1. Can I leave the room? I asked _____.

2. How is Johnny getting on at school? She asked _____.

3. Are you happy here? She asked me _____.

4. Does he live in a large flat? She wondered _____.

5. Are the summers very hot there? He enquired _____.

6. Have you always lived in the old town? They asked him _____.

7. Do you want coffee or tea? They asked me _____.

8. Is he coming or not? Did he say _____.

9. Who built that castle? She wanted to know _____.

10. Where did you go this summer? He enquired _____.

11. How far is the stadium? He wanted to know _____.

12. Did he bring the book back? I didn't know _____.

13. Who bought the Picasso painting? He wondered _____.

14. Where did you get such a lovely pullover? She asked her sister _____
_____.

14. Complete the reported orders, requests, advice and warnings. Use *tell, order, ask, beg, advise, threaten, warn, say, complain, announce, remind, apologise, admit, offer, invite.*

1. The doctor said, 'I think you should go to a gym.' _____

2. 'I wouldn't buy a new car if I were you.'_____

3. My mother said, 'Will you please tidy your room?'_____

4. Tom said, 'I'm getting married in July.'_____

5. 'I'm sorry I lost your umbrella.'_____ _____

6. Dad said, 'Be careful – there's ice on the roads.'_____

7. He said, 'You must remember to book the hotel later.'_____

8. The doctor said, 'Stop working so hard.'_____

9. 'Would you like me to open the windows?'_____

10. 'My advice is that you shouldn't give up your job yet,' Dad told me. _____
_____

11. The police office shouted: 'Get out of the car!' _____

12. 'We have broken the office window.'_____

13. Tom said, 'Would you like to join our team in the quiz competition?'_____
_____

14. 'Please – oh, please – give us the sweets.'_____

15. Alisa said, 'I can't walk any further.'_____

16. 'Don't touch the oven or you'll get burnt,' she said to the children. _____
_____

17. 'The service is very slow in this café, isn't it?' Dave said. _____
_____

18. Mary told Jim, 'If you do that again, I'll have to tell your mother.' _____
_____

19. 'I'm so sorry I was late. My car broke down,' Chris said to Angela. _____
_____

20. 'Let's have fish for dinner,' said Tom. _____

15. Choose the correct answer:

1. "You can move in immediately." She told me I *a) would move in* / *b) can move in* / *c) could move in* immediately. 2. "The people who I looked after are very well." She said that the people who she *a) were looking after / are* *b) have looked after / are* *c) had looked after / were* very well. 3. "You look brown. Have you *a) been* *b) gone* *c) did* on holiday?" "Yes, we've *a) now* *b) just* *c) already* got back." 4. "I need £100 deposit." Then she said she *a) needs* *b) had needed* *c) needed* £100 deposit. 5. "Are you ready?" she asked. She asked *a) if I was* *b) when I am* *c) to be* ready. 6. "Why is he smiling?" I wanted to know *a) why he was smiling* *b) why is he smiling* *c) why he is smiling.* 7. "When will you be here?" she asked. She asked me when *a) I would be* *b) would I be* *c) she will be* there. 8. "Do you need a pen?" Anne asked me *a) did I need* *b) if I needed* *c) whether she needed* a pen. 9. "What are you talking about?" Dick asked me what *a) am I talking about* *b) I was talking about* *c) he is talking about.* 10. "Don't walk on the bridge." He warned us *a) to walk* *b) don't walk* *c) not to walk* on that bridge. 11. "Please be quiet." I asked them *a) be* *b) not to be* *c) to be* quiet. 12. "Shall I call a taxi?" He asked me if *a) he should call* *b) I should call* *c) should he call* a taxi. 13. "Open your mouth." The dentist told me *a) to open his mouth* *b) open your mouth* *c) to open my mouth.* 14. "Don't be late." The teacher told us *a) not to be late* *b) not*

being late c) we don't be late. 15. The teacher said, "Pick up your book, Mike." The teacher told Mike *a) pick up his book b) to pick up her book c) to pick up his book.* 16. Janet said that she was hungry. Janet said, "*a) I was hungry. b) I am hungry. c) She is hungry.*" 17. Mike says his father is ill. Mike says, "*a) My father is ill b) His father is ill c) My father was ill.* 18. We said that we were leaving on Saturday. We said, "*a) You are leaving on Saturday. b) We leave on Saturday. c) We are leaving on Saturday.* 19. The secretary told me that Mr. Rich had gone out. The secretary told me, "*a) Mr. Rich was going out. b) Mr. Rich goes out. c) Mr. Rich has gone out.* 20. Bill said he didn't like to study. Bill said, "*a) You don't like to study. b) I don't like to study. c) He doesn't like to study.* 21. The old lady said she wasn't feeling well. The old lady said, "*a) I'm not feeling well. b) I don't feel well. c) She hasn't been feeling well.*" 22. Carol said that she would see me the next day. Carol said, "*a) You will see me tomorrow. b) I will see you tomorrow. c) She will see you tomorrow.* 23. You told me that you would be careful. You said to me, "*a) You will be careful. b) I will be careful. c) Be careful.*" 24. He asked me what I was reading. "*a) What do you read? b) What you are reading? c) What are you reading?* he asked me. 25. I asked the clerk if they had a double room. "*a) Have you got a double room? b) Did you have a double room? c) Is there a double room?* I asked the clerk. 26. I asked her what her name was. "*a) What is your name? b) What my name was? c) What is her name?* I asked her. 27. They asked me if I was Turkish. "*a) You are Turkish? b) Am I Turkish? c) Are you Turkish?*" they asked me. 28. My father told me to do my homework. My father said, "*a) You do your homework. b) Do your homework. c) I don't do my homework.*" 29. He warned me not to touch the wire. "*a) I don't touch the wire. b) Touch the wire. c) Don't touch the wire."* he warned me. 30. The doctor told him not to eat much. "*a) You eat very little, b) Don't eat much, c) Eat very little,*" the doctor said to him.

16. Translate into English:

1. Вона сказала, що вони думали продати будинок, але вирішили цього не робити. 2. Він сказав, що коли бачив їх, вони грали в теніс. 3. Петро сказав, що коли вони жили в Парижі, вони часто бачились з Томом. 4. Енн сказала, що

вирішила не купувати будинок, оскільки він був далеко від центра міста. 5. Брат попередив, що зможе допомогти мені завтра. 6. Вона хвалилася, що вміла читати, коли їй було три роки. 7. Він сказав, що не може відкрити сейф, тому що забув код. 8. Джек повідомив, що їде у відрядження сьогодні. 9. Ганна пообіцяла віддати борг через тиждень. 10. Сьогодні за сніданком він сказав, що буде зайнятий весь день. 11. Хелен повідомила, що повернеться сюди через кілька днів. 12. Вона сказала, що купила подарунок для своєї мами. 13. Він пообіцяв матері, що приїде завтра вранці. 14. Сестра попередила мене, що затримається на роботі сьогодні ввечері. 15. Я не знала як користуватися новим приладом і Ганна порадила мені почитати інструкцію. 16. Він пояснив, що знає це місто добре, тому що прожив тут все життя. 17. Мене попросили піти на пошту та відправити листи. 18. Мене запитали, де я була весь цей час. 19. Він сказав, що якби він мав інструменти, він би полагодив праску. 20. Батько сказав, що через місяць буде 25 років, як він працює на цій фірмі.

MODULE 2.

CLOUD COMPUTING

Text 1. WHAT IS CLOUD COMPUTING?

Basic Vocabulary

to bypass	обходити	security posture	вимога безпеки
to cut down	знижувати, зменшувати	proprietary network	власна мережа
disaster	катастрофа, стихійне лихо	permission	дозвіл
		to resolve	вирішувати
downtime	простій, простоювання	robust	надійний
for instance	наприклад	scalable	масштабований
to host	розміщувати	to streamline	оптимізувати
pay-as-you-go basis	на основі фактичного використання	revenue	дохід
		vendor	постачальник

Cloud computing is a means of providing computing services (including databases, servers, software, and networking) via the internet, allowing the user to bypass direct management of those systems. These services are divided into three main types of cloud computing: infrastructure as a service (IaaS), platform as a service (PaaS) and software as a service (SaaS).

IaaS is a type of cloud computing service that offers essential compute, storage, and networking resources on demand, on a **pay-as-you-go** basis (a payment method for cloud computing that charges based on usage). IaaS offers access to resources such as servers, storage, memory, and other services. Examples of IaaS include Rackspace, Amazon Web Services (AWS) Elastic Compute Cloud (EC2), Microsoft Azure, Google Compute Engine (GCE) and Joyent.

PaaS is a cloud computing model where a third-party provider delivers hardware and software tools to users over the internet. Usually, these tools are needed for application development. A PaaS provider hosts the hardware and software on its own infrastructure. This could include operating systems, graphic user interface, programming languages and database management, for instance.

SaaS is a software distribution model in which a cloud provider hosts applications and makes them available to end users over the internet. Well-

known SaaS examples include Dropbox, Google Workspace, and Salesforce.

A cloud can be private or public. A public cloud sells services to anyone on the internet. A private cloud is a proprietary network or a data center that supplies hosted services to a limited number of people, with certain access and permissions settings. Private or public, the goal of cloud computing is to provide easy, scalable access to computing resources and IT services.

Cloud infrastructure involves the hardware and software components required for proper implementation of a cloud computing model. Cloud computing can also be thought of as utility computing or on-demand computing.

Cloud computing offers many opportunities to streamline operations for both business leaders and end-users. Here are examples of those benefits:

Pay-Per-Use: Software piracy leads to revenue loss through unauthorized product usage. With cloud computing, resources are measured on a per-use basis, cutting down on both piracy risks and company costs.

Data loss prevention: Cloud providers offer backup and disaster recovery features. Storing data in the cloud rather than locally can help prevent data loss in the event of an emergency, such as hardware malfunction, malicious threats, or even simple user error.

Scalability and elasticity: Scalability is the ability of a system or network to handle increased load or usage. At the same time, elasticity is the ability to automatically expand and contract resources to meet demand.

Better collaboration: Cloud storage enables you to make data available anywhere you are, anytime you need it. Instead of being tied to a location or specific device, people can access data from anywhere in the world from any device—as long as they have an internet connection.

Advanced security: Cloud computing can actually strengthen your security posture because of the depth and breadth of security features, automatic maintenance, and centralized management. Reputable cloud providers also hire top security experts and employ the most advanced solutions, providing protection that is more robust.

Of course, like any technology, there are some disadvantages of cloud computing. One of the most common drawbacks of cloud computing is that

it relies on an internet connection. A bad connection could keep you from accessing the information or applications you need.

Even top cloud service providers can experience downtime due to a natural disaster or slower performance caused by an unforeseen technical issue that might affect connectivity. You could be blocked from accessing cloud services until the problem is resolved.

Other disadvantages of cloud computing include:

- risk of vendor lock-in;
- less control over underlying cloud infrastructure;
- concerns about security risks like data privacy and online threats;
- integration complexity with existing systems;
- unforeseen costs and unexpected expenses.

EXERCISES

1. Read and translate the text. Learn the words from *Basic Vocabulary*.

2. Are the statements True or False? Correct any False statements.
1. Cloud computing is a general term for anything that involves delivering hosted services over the internet. _____ 2. IaaS is a type of cloud computing service where a third-party provider delivers hardware and software tools to users over the internet. _____ 3. SaaS examples include Dropbox, Google Workspace, and Salesforce. _____ 4. A PaaS provider hosts the hardware and software on its own infrastructure. _____ 5. A private cloud sells services to anyone on the internet. _____ 6. Software piracy leads to revenue loss through unauthorized product usage. _____ 7. Scalability is the ability of a system or network to handle increased load or usage. _____ 8. One of the most common advantages of cloud computing is that it relies on an internet connection. _____

3. Look back in the text and find words that have a similar meaning to:
1. pattern _____
2. flexibility _____
3. safety _____
4. reliable _____

5. estimable _____
6. depend on _____
7. specialist _____

4. Look back in the text and find words that have an opposite meaning to:

1. follow _____
2. buyer _____
3. publicity _____

4. imaginary _____
5. simplicity _____

5. Find English equivalents in the text:

обходити пряме управління, на основі фактичного використання, для розробки додатків, розміщувати апаратне та програмне забезпечення у власній інфраструктурі, розміщувати програми та робити їх доступними для кінцевих користувачів через Інтернет, власна мережа або центр обробки даних, надавати послуги обмеженій кількості людей, обчислення на вимогу, можливості для оптимізації операцій, несанкціоноване використання продукту, функції резервного копіювання та аварійного відновлення, робити дані доступними, автоматичне обслуговування та централізоване управління, залежати від підключення до Інтернету, конфіденційність даних і онлайн-загрози.

6. Match the words or phrases in two columns to form the word-combination from the text:

1.	means of providing	a)	tools to users over the internet
2.	to offer essential compute,	b)	of a cloud computing model
3.	keep somebody	c)	from accessing the information
4.	to supplies hosted services	d)	accessing cloud services
5.	required for proper implementation	e)	computing services via the Internet
6.	prevent data loss	f)	to a limited number of people
7.	to delivers hardware and software	g)	storage, and networking resources on demand
8.	be blocked from	h)	by an unforeseen technical issue
9.	to slower performance caused	i)	computing or on-demand computing
10.	to be thought of as utility	j)	in the event of an emergency

7. Match the words with the definitions.

1.	pay-as-you-go basis	a)	capable of performing without failure under a wide range of conditions
2.	proprietary	b)	the ability to automatically expand and contract resources to meet demand
3.	robust	c)	a failure to operate in the normal or correct manner
4.	scalability	d)	a payment method for cloud computing that charges based on usage
5.	to streamline	e)	time during which production is stopped especially during setup for an operation or when making repairs
6.	elasticity	f)	relating to an owner or ownership
7.	malfunction	g)	having or showing a desire to cause harm to someone
8.	downtime	h)	without authority or permission
9.	malicious	i)	to make simpler or more efficient
10.	unauthorized	j)	the ability of a system or network to handle increased load or usage

8. What words are defined by the following definitions?

1. Internet services available for a fee _____

2. Internet services available to everyone _____

3. receiving server functions over the Internet _____

4. receiving operating systems over the Internet _____

5. use of the Internet for software and other services _____

6. potential for a system to change site _____

7 computing as a metered service _____

9. Read the text. Choose from the sentences (A-D) the one that best fits each gap. (1-4) to complete the text.

Cloud computing is changing the distribution of computing and storage services. ⌐_1/_⌐ Software engineers must be ready to meet demands for this specialized software.

One model of cloud computing is SaaS, or Software as a Service. ⌐_2/_⌐ Another example is PaaS, or Platform as a Service. In this model, computer hardware and software are rented. Software on demand falls under the PaaS category.

To provide their services, companies purchase software licenses. Then they charge users for access to the software. ⎣_3/_⎦ This means that users pay afterwards for whatever they used. Others support pay-to-you-go systems. In these cases, software as a product is purchased in advance, when it is needed.

Several requirements of the computer platform are necessary to access cloud technology. ⎣_4/_⎦ The bandwidth of the system needs to be large in order to quickly send and receive information. But if the specifications are right, cloud computing is a tremendously useful tool. Users can easily access data from web browsers, among other methods. A tip to software engineers: get into this expanding industry!

A Some companies charge users by metered fees.

B In this model, software is hosted by a provider and accessed over a network.

C The computer must be online.

D Cloud computing is a network of companies and users sharing resources.

10. Fill in the blanks with the correct words and phrases from the box.

Therefore	To begin with	Finally	What's more	Although

_____[1] nowadays installing new software can be relatively easy, users can still come up against a few problems. The new installation may require a significant amount of space on the hard drive, but it isn't available. It's _____[2] important to make sure there's enough disk space. A user must also verify that they have administrative access. If they are not the person who set up the computer, there may be a different username and password needed to install or update software. Another problem may occur if the new software is not compatible with the operating system or other software already installed on their computer.

There are numerous ways a business can benefit from online services. _____[3], it can help increase the availability of business communications on a global network and improve sales-force performance. _____[4], companies can discover the latest in messaging and collaboration features, plus have access to all the hosted services. Online services provide business security and secure Internet

protocols. _____[5], using online services can quickly enhance or expand a firm's IT capacity by adding new services without having to invest in the development of new skills or deploying new hardware and software.

11. Read a conversation between an IT worker and a manager. Mark the following statements as true (T) or false (F).

1. _____ The company is having software compatibility problems.

2. _____ The IT worker thinks cloud computing will help the company.

3. _____ The manager asks the IT worker to set up a CDN first.

IT Worker: Excuse me, Mr. Lentz? Can I talk to you about something?

Manager: Sure, Mary. What do you need?

IT Worker: I was reading this column on cloud computing. I thought you should know about it.

Manager: Cloud computing? I've heard of it, but I don't know much about it.

IT Worker: Basically, businesses use it to get exactly what they need from the Internet.

Manager: I'm not sure I get what you mean. How exactly would it help us?

IT Worker: Remember when we installed all that software a few years back? The ones that had so many compatibility issues?

Manager: Yeah, that was a real waste of money.

IT Worker: Well, with cloud computing we can just access the software online. Then we pay for how much we use it.

Manager: So, it's a pay as you go type of service? What if the software is bad?

IT Worker: We can just cancel the service and switch to something better. Deployment is really easy.

Manager: I like the sound of that. How can we set it up?

IT Worker: I'd start with a CDN. It's a set of computers that just store data.

Manager: Why would we only store data on them?

IT Worker: We'd have more available bandwidth that way. And so we'd have also faster access to online software.

12. Answer the following questions on the text:

1. What is cloud computing?

2. What main types of cloud computing are the services divided into?

3. What does IaaS type of cloud computing service offer?

4. What does PaaS computing model include?

5. What is the difference between private and public cloud?

6. What does cloud infrastructure involve?

7. What are the benefits of cloud computing? Can you enumerate them?

8. Does cloud computing have any drawbacks?

13. Translate into English:

1. Хмарні обчислення надають багатьом підприємствам доступні за ціною послуги. 2. Хмарні обчислення зосереджені на використанні Інтернету для програмного забезпечення та інших ресурсів. 3. Компанії мають доступ до багатьох ресурсів як із приватних, так і з публічних хмар. 4. Комп'ютери можуть легко перейти на нову ОС за допомогою PaaS. Вони також можуть перейти на новий сервер із IaaS. 5. Підприємства отримують вигоду від тарифікації хмарних обчислень за принципом «оплата на основі фактичного використання». 6. За допомогою SaaS розгортання нового програмного забезпечення відбувається майже автоматично. 7. Це позбавляє від необхідності купувати програмне забезпечення та встановлювати його на кожному окремому комп'ютері. 8. Крім того, компанії можуть контролювати їх використання та будь-коли скасувати послуги.

14. Retell the text "What is Cloud Computing?" using your active vocabulary.

15. Look at Appendix 2, then fill in the correct particle.

1. Ben **went** _____ the competition and won first prize. 2. Ssh! There's a meeting **going** _____ next door. 3. The teacher **went** _____ my homework to check for mistakes. 4. Will you **go** _____ working after the baby's born? 5. We're **going** _____ on holiday tomorrow morning. 6. I

don't think there's enough coffee to **go** _____. Does anyone want tea? 7. This is the first time I've **come** _____ such a problem. 8. **Come** _____, Osmond. No sense in your standing around. 9. How did you **come** _____ these pictures? 10. My father has just **come** _____ a fortune in diamonds. 11. It was a risky investment but it **came** _____. 12. You might feel a little sick when you **come** _____ from the anesthetic. 13. The only one who came _____ _____ solution to our dilemma was Mum.

16. Read the sentences and comment on the meaning of the phrasal verbs.

1. Jobs were hard to **come by**. 2. The bill **came to** $48.50. 3. It was a good idea, but it didn't quite **come off**. 4. Why don't you **come around** for lunch? 5. My nose is stuffy and my head hurts. 6. I think I am **coming down with** a cold. 7. **Come along**! The film starts in ten minutes. 8. I **came across** an old diary in her desk. 9. One of the actors was unwell and couldn't **go on** with the performance. 10. Is there enough ice-cream to **go around**? 11. I didn't **go in for** poetry seriously, but now I'm beginning to take an interest in it. 12. I **went away** wondering if I'd said a wrong thing. 13. Customs officer **went through** all my bags.

17. Look at Appendix 3, then choose the correct preposition.

1. *By/At/In* **the beginning of** the play, Romeo is in love with Rosaline. 2. There are countless stars *in/at/with* **the** night **sky**. 3. Please don't wear that. It's *out of/on/in* **fashion**. 4. Dad asked Mum if she was *of/in/on* **the mood** for dinner and dancing. 5. Sue and Dan went to the library *with/on/by* **foot**. 6. You shouldn't talk *to/on/with* **the phone** while you're driving. 7. I'd like to sit and chat, but I'm *on/in/at* **a hurry** right now! 8. What bad luck! The vending machine is *in/for/out of* **order**. 9. Their guide took them *on/at/by* **a tour** of the island. 10. "Is Jill still *by/on/at* **bad terms** with Mike?" "Yes, they hardly speak." 11. Don't expect to get a lot for the car. It's *of/at/in* **bad condition**.

18. Look at Appendix 4, then choose the correct preposition.

1. My teacher is **depending** *in/on/with* me to organize the fun run by Monday. 2. I **apologize** *for/to/in* being rude to you earlier this morning. 3. People **differ** *with/about/from* one another in their culture and traditions. 4. I **disagreed** *with/on/for* Helen about how much money we should take on our excursion. 5. Garry **insisted** *on/to/in* cleaning my flat even though I had told him not to. 6. I **forgot** *all for/of/about* my mum and dad's wedding anniversary. 7. Have you **heard** *of/with/from* the Akamba tribe that lives in Kenya? 8. I've decided to **invite** the whole class *in/to/at* my 16th birthday party.

Text 2. CLOUD SECURITY

Basic Vocabulary

accreditation	акредитування, акредитація	safeguarding	захист, забезпе-чення безпеки
alert	сповіщення	to align	вирівнювати
cloud assets	хмарні (ресурси, активи)	to configure	формувати
		to deploy	розгортати
compliance	дотримання, виконання	to decommission	виводити з експлуатації
compliant	відповідний, сумісний	to disrupt	розривати, руйнувати
deployment	розміщення	to enforce	підсилювати
embedded	вкладений; вбудований,	to embrace	включати; охоплювати
encryption	кодування	to exploit	використовувати
governance	управління	to expose	розкривати
ingress port	порт входу	to grant	надавати
malicious	шкідливий	to issue	випускати,
on-premise	локальний	to provision	надавати
malware	зловмисне програ-мне забезпечення	to quantify	визначати кількість
		to undermine	руйнувати
velocity	швидкість	unauthorized	несанкціонований
template	шаблон, зразок	misconfiguration	неправильна, по-милкова конфігу-рація/налаштування
seamlessly	безперебійно		
privilege	право доступу до системних ресурсів		

Cloud security refers to the technologies, policies, controls, and services that protect cloud data, applications, and infrastructure from threats.

Cloud security is a responsibility that is shared between the cloud provider and the customer. There are basically three categories of responsibilities in the Shared Responsibility Model: responsibilities that are *always* the provider's, responsibilities that are *always* the customer's, and responsibilities that vary *depending on the service model*: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), or Software as a Service (SaaS), such as cloud email.

The security responsibilities that are *always* the provider's are related to the safeguarding of the infrastructure itself, as well as access to the configuration of the physical hosts and the physical network on which the compute instances run and the storage and other resources.

The security responsibilities that are *always* the customer's include managing users and their access privileges, the safeguarding of cloud accounts from unauthorized access, the encryption and protection of cloud-based data assets, and managing its security compliance.

Because the public cloud does not have clear perimeters, it presents a fundamentally different security reality. This becomes even more challenging when adopting modern cloud approaches such as automated Continuous Integration and Continuous Deployment (CI/CD) methods, distributed serverless architectures, and ephemeral assets like Functions as a Service and containers.

Some of the advanced cloud-native security challenges and the multiple layers of risk faced by today's cloud-oriented organizations include:

1. **Increased Attack Surface**. The public cloud environment has become a large and highly attractive **attack surface** for hackers who exploit poorly secured cloud ingress ports in order to access and disrupt workloads and data in the cloud. Malware, Zero-Day, Account Takeover and many other malicious threats have become a day-to-day reality.

2. **Lack of Visibility and Tracking.** In the IaaS model, the cloud providers have full control over the infrastructure layer and do not expose it to their customers. The lack of visibility and control is further extended in the PaaS and SaaS cloud models. Cloud customers often cannot effectively

identify and quantify their cloud assets or visualize their cloud environments.

3. **Ever-Changing Workloads**. Cloud assets are provisioned and decommissioned dynamically—at scale and at velocity. Traditional security tools are simply incapable of enforcing protection policies in such a flexible and dynamic environment with its ever-changing and ephemeral workloads.

4. **DevOps, DevSecOps and Automation**. Organizations that have embraced the highly automated DevOps CI/CD culture must ensure that appropriate security controls are identified and embedded in code and templates early in the development cycle. Security-related changes implemented after a workload has been deployed in production can undermine the organization's security posture as well as lengthen time to market.

5. **Granular Privilege and Key Management**. Often cloud user roles are configured very loosely, granting extensive privileges beyond what is intended or required. One common example is giving database delete or write permissions to untrained users or users who have no business need to delete or add database assets. At the application level, improperly configured keys and privileges expose sessions to security risks.

6. **Complex Environments**. These days enterprises favor managing security in a consistent way in hybrid and multi-cloud environments. This requires methods and tools that work seamlessly across public cloud providers, private cloud providers, and on-premise deployments.

7. **Cloud Compliance and Governance**. All the leading cloud providers have aligned themselves with most of the well-known accreditation programs such as PCI 3.2, NIST 800-53, HIPAA and GDPR. However, customers are responsible for ensuring that their workload and data processes are compliant. Given the poor visibility as well as the dynamics of the cloud environment, the compliance audit process becomes close to mission impossible unless tools are used to achieve continuous compliance checks and issue real-time alerts about misconfigurations.

https://www.checkpoint.com/cyber-hub/cloud-security/what-is-cloud-security/

EXERCISES

1. Read and translate the text. Learn the words from *Basic Vocabulary.*

2. Are the statements True or False? Correct any False statements.

1. There are four categories of responsibilities in the Shared Responsibility Model. _____ 2. The security responsibilities that are always the provider's are related only to the safeguarding of the infrastructure itself. _____ 3. Because the public cloud does not have clear perimeters, it presents a fundamentally different security reality. _____ 4. The private cloud environment has become a large and highly attractive attack surface for hackers. _____ 5. Cloud assets are provisioned and decommissioned at scale and at velocity. _____ 6. At the application level, properly configured keys and privileges expose sessions to security risks. _____ 7. These days enterprises favor managing security in a consistent way both in hybrid and multi-cloud environments. _____ 8. Customers are responsible for ensuring that their workload and data processes are compliant. _____

3. Look back in the text and find words that have a similar meaning to:

1. famous _____   4. steady _____

2. consumers _____   5. associated _____

3. flexible _____   6. speed _____

4. Look back in the text and find words that have an opposite meaning to:

1. static _____   4. fixed _____

2. safety _____   5. improper _____

3. unprotective _____

5. Find English equivalents in the text:

модель спільної відповідальності; в залежності від моделі обслуговування; пов'язаний із захистом самої інфраструктури; захист хмарних облікових записів від несанкціонованого доступу; відповідність вимогам безпеки; мати чіткі периметри; принципово інша безпекова реальність; погано захищені вхідні

порти; шкідливі загрози; гнучке та динамічне середовище; підривати безпеку організації; непідготовлені користувачі.

6. Match the words or phrases in two columns to form the word-combination from the text:

1. to protect cloud data, applications,
2. a responsibility that is shared
3. to vary depending on
4. to include managing users and
5. to adopt modern
6. to access and disrupt workloads
7. security-related changes implemented
8. undermine the organization's
9. real-time alerts

a) the service model
b) cloud approaches
c) after a workload
d) and infrastructure from threats
e) about misconfigurations
f) security posture
g) between the cloud provider and the customer
h) and data in the cloud
i) their access privileges

7. Match the words with the definitions.

1. compliance
2. governance
3. encryption
4. deployment
5. ephemeral
6. unauthorized
7. to quantify
8. malware

a) produced without official permission
b) lasting a very short time
c) the system by which entities are directed and controlled
d) to use a situation so that you get benefit from it
e) the state of being in accordance with established guidelines or specifications
f) software designed to damage or destroy information on a computer
g) the process of making software available to be used on a system by users and other programs
h) to measure or describe something as a quantity

9. to exploit   i) official approval of an organization, worker, or course of study

10. accreditation   j) the process through which data is encoded so that it remains inaccessible to unauthorized users

8. Fill in the blanks with the correct words and phrases from the box.

internal	external	alerts	algorithms	violations
security	configuration	visualize	profile	threats
response	triggering			

Third-party cloud _____^{1} vendors add context to the large and diverse streams of cloud-native logs by intelligently cross-referencing aggregated log data with _____^{2} data such as asset and _____^{3} management systems, vulnerability scanners, etc. and _____^{4} data such as public threat intelligence feeds, geolocation databases, etc. They also provide tools that help _____^{5} and query the threat landscape and promote quicker incident _____^{6} times. AI-based anomaly detection _____^{7} are applied to catch unknown _____^{8}, which then undergo forensics analysis to determine their risk _____^{9}. Real-time _____^{10} on intrusions and policy _____^{11} shorten times to remediation, sometimes even _____^{12} auto-remediation workflows.

9. Answer the following questions on the text:

1. What responsibility does cloud security share? 2. What are the security responsibilities that are always the provider's related to? 3. What does the security responsibilities that are always the customer's include? 4. Why does the public cloud present a fundamentally different security reality? 5. What malicious threats have become a day-to-day reality? 6. Are cloud assets provisioned and decommissioned dynamically or statically? 7. What changes can undermine the organization's security posture and lengthen time to market? 8. What methods and tools are required for managing security in hybrid and multi-cloud environments? 9. What accreditation programs have all the leading cloud providers aligned themselves with?

10. Translate into English:

1. Хмарні ресурси — це централізоване цифрове сховище, яке працює через Інтернет. 2. В Моделі Спільної Відповідальності є три категорії обов'язків. 3. Зловмисне програмне забезпечення може приймати форму вірусів, рекламного або шпигунського програмного забезпечення. 4. Хмарну систему зберігання можна використовувати для повсякденних файлів, над якими працюєте ви та ваша команда. 5. Споживачі хмари часто не можуть ефективно кількісно оцінити свої хмарні ресурси. 6. Традиційні інструменти безпеки неспроможні забезпечити дотримання політик захисту в гнучкому та динамічному середовищі з постійно мінливими та ефемерними робочими навантаженнями. 7. Кілька популярних методів шифрування використовується зараз. 8. Пошкодження сталося внаслідок неправильного використання та несанкціонованої модифікації обладнання.

11. Retell the text "Cloud security" using your active vocabulary.

12. Look at Appendix 2, then fill in the correct particle.

1. I think we'd arrive sooner if we **cut** _____ Bond Street. 2. If you don't pay your water bill, your water supply will be **cut** ____. 3. Coloured paper was **cut** _____ circles, squares and triangles. 4. I don't think he's **cut** _____ to be a doctor. 5. She **cut** _____ the carrots and put them in the pot. 6. She's **putting** _____ all the money she makes working part-time because she wants to go to Italy on holiday this year. 7. Television can be a useful way of **putting** _____ health messages. 8. Her work ethic and desire to go back into the recording studio three months after giving birth is something she **puts** _____ ____ her mother 's influence. 9. The Association has **put** the event _____ until October. 10. **Put** _____ your tracksuit and let's go jogging. 11. The soldiers were **put** _____ eight weeks of basic training. 12. He seems to think it's something I've just got to **put** ____ _____.

13. Look at Appendix 2, then choose the correct particle.

1. A loud rap on his office door **cut** *in/into/across/up* his thoughts. 2. I'm not **cut** *out for/for/up/to* working in an office. 3. I usually **cut** *through/across/down/off* the park on my way home. 4. He **cut** *into/across/up/down* the conversation to ask to go out. 5. We got **cut** *in/off/up/out* in the middle of the call. 6. I listened to the programme and found they'd **cut** *in/into/out/off* all the interesting stuff. 7. I want to overtake the lorry but a car from behind **cut** *to/through/up/in* between us. 8. I can't **put** *down/up with/on/off* those children any longer. 9. Could you **put** me *on/through/forward/by* to the manager, please? 10. We'd better **put** *off/in/on/up* out meeting until tomorrow; I'm busy now. 11. The fireman tried hard to **put** the fire *across/in/down/out*. 12. Our class is **putting** *back/on/forward/off* "Cinderella" as the school play. 13. I **put** his bad mood *up to/up with/down to/out* his losing that money last night. 14. The teacher **put** *back/across/down/through* his ideas well, helping us a lot.

14. Read the sentences and comment on the meaning of the phrasal verbs.

1. The snowstorm completely **cut off** the village for weeks. 2. Several pages were **cut out** of the book. 3. Who's going to **cut up** the vegetables? 4. The ship was **cut into** several pieces in the accident. 5. He left his car up the road and **cut across** the fields on foot. 6. In the end, I decided I wasn't **cut out for** the army. 7. She **put** a lot of weight **on** after the children were born. 8. We'd been unhappy for years, but I **put up with** it for the sake of the kids. 9. They had to **put** the wedding **off** because the bride's mother had an accident. 10. She tried to light a candle but the rain **put** it **out**. 11. She wouldn't want to **put** them **through** the ordeal of a huge ceremony. 12. We're **putting on** a concert to raise money for cancer charities. 13. One of those things BMW can **put down to** experience. 14. He has taken out a half-page advertisement in his local paper to **put** his point **across**.

15. Look at Appendix 3, then choose the correct preposition.

1. *On/In/From* **the one hand**, gardening is a fun free-time activity. *On/In/From* **the other hand**, it can be hard work. 2. The Siberian tiger is *in/at/by* **danger** of extinction. Only 200 remain. 3. Mum said getting a puppy was out *of/in/on* **the**

question and not to ask again. 4. *On/For/In* the way to the gym Carl saw Zack. 5. Jerry lives *in/on/at* 89 Benworth St. 6. I often eat with friends *at/for/on* **lunchtime**. 7. Help! The building is *on/in/by* **fire**! 8. Look at that lovely handbag! It's *at/on/to* **sale**. 9. I'm so happy Aunt Beth is coming *for/at/by* **last**! 10. *For/In/By* **short**, they left without saying a word. 11. The lorry driver hit the street sign *in/by/for* **accident**.

16. Look at Appendix 4, then fill in the correct preposition.

1. My mother is awfully **afraid** _____ spiders. 2. Rory is **good** _____ every sport he tries. 3. We are **excited** _____ our trip to Jamaica! 4. Lots of people are **frightened** _____ the dark. 5. Alex is very **interested** _____ ballet, jazz and hip-hop. 6. The television series *Patito Feo* is **popular** _____ young teens. 7. This cheese tastes **different** _____ the one we bought last week. 8. You shouldn't be **jealous** _____ your friends. 9. Every teacher is **responsible** _____ her students. 10. His boss is **satisfied** _____ the work he has done. 11. The album is largely a **compilation** _____ her old songs. 12. He shows a complete **disregard** _____ his own safety. 13. You can use honey as a **substitute** _____ sugar. 14. They have some **involvement** _____ a number of companies. 15. There's a total **ban** _____ smoking. 16. **Congratulations** _____ receiving such an important award.

Text 3. COMPUTER VIRUSES

Basic Vocabulary

adversely	несприятливо	to corrupt	псувати
benign	нешкідливий	to embed	вбудовувати
bundle	пакет, пучок	to encrypt	шифрувати
detection	виявлення, розкриття	to erase	стирати
dormant	пасивний, бездіяльний	to evade	ухилятися, уникати
execution	виконання	to harbor	містити
havoc	руйнування, безлад	to inflict	завдавати, наносити, заподіювати
malignant	шкідливий	to interfere	перешкоджати
myriad	незліченна кількість	to piggyback	об'єднувати
payload	корисне навантаження	to propagate	поширювати
perpetrator	злочинець	to render	приводити (*в стан*)
self-replication	самовідтворення	whim	примха

Today mass application of PCs, unfortunately, is connected with occurrence of a sort of programs which interfere normal work of the computer discs, destroy file structure and damage the stored information. Along with an easy approach to all resources of the machine we can face the danger, which recently has received the name of a "computer virus".

A virus is a piece of software designed and written to adversely affect your computer by altering the way it works without your knowledge or permission. When the infected program is run, the virus propagates to other files or programs on the computer. Computer viruses do not spontaneously generate: they must be written and have a specific purpose. Usually a virus has two distinct functions:

1. Spreads itself from one file to another without your input or knowledge. Technically, this is known as self-replication and propagation.

2. Implements the symptom or damage planned by the perpetrator. This could include erasing a disk, corrupting your programs or just creating havoc on your computer. Technically, this is known as the virus payload, which can be benign or malignant at the whim of the virus creator.

A benign virus is one that is designed to do no real damage to your computer. For example, a virus that conceals itself until some predetermined date or time and then does nothing more than display some sort of message is considered benign.

A malignant virus is one that attempts to inflict malicious damage to your computer, although the damage may not be intentional.

The following types of computer viruses are distinguished:

- **File infectors.** Some file infector viruses attach themselves to program files, usually selected COM or EXE files. Others can infect any program for which execution is requested, including SYS, OVL, PRG and MNU files. When the infected program is loaded, the virus is loaded as well. Other file infector viruses arrive as wholly contained programs or scripts sent as an attachment to an email note.

- **Macro viruses**, or macros, are malicious programs that are designed to replicate themselves from file to file and can destroy or change data. Macros are written in files by such programs as Microsoft Word and

Microsoft Excel. They can be transferred across platforms and spread whenever you open an infected file.

- **Overwriting viruses.** Some viruses are designed specifically to destroy a file or application's data. These viruses not only spread malicious code, they also replace the information contained in other programs. They erase important information, sometimes rendering a computer entirely unusable.

- **Resident viruses**. This type of virus embeds itself in the memory of a system. They stay dormant until a particular event activates them. If your computer harbors resident viruses, you may not discover them until the damage is done. These viruses often install themselves in the resident extensions of other programs. Resident viruses are problematic because they can evade antivirus and antimalware software by hiding in the system's random access memory (RAM).

- **Polymorphic viruses** are complex file infectors that can create modified versions of itself to avoid detection yet retain the same basic routines after every infection. To vary their physical file makeup during each infection, polymorphic viruses encrypt their codes and use different encryption keys every time. They are usually distributed via spam, infected sites, or through the use of other malware. URSNIF, VIRLOCK, VOBFUS, and BAGLE or UPolyX are some of the most notorious polymorphic viruses in existence.

- **Rootkit viruses**. A rootkit is a malicious software bundle designed to give unauthorized access to a computer or other software. Rootkits are hard to detect and can conceal their presence within an infected system. Hackers use rootkit malware to remotely access your computer, manipulate it, and steal data.

- **A Trojan horse** is another destructive type of program. It's not technically a virus, because it doesn't replicate, but it's still dangerous. A Trojan horse looks like an ordinary, useful file or program. However, it has destructive programming embedded in it. This programming may also piggyback onto beneficial files. Because they are not viruses, files containing them can't be repaired.

- **Worms** are programs that replicate without infecting other programs. Some worms spread by copying themselves from disc to disc. They search for specific types of files on a hard disc or server volume, and try to destroy or damage them. Other worms replicate only in memory, creating myriad of copies, all running simultaneously, which slows down the computer. Like Trojan horses, they are not viruses and can't be repaired.

EXERCISES

1. Read and translate the text. Learn the words from *Basic Vocabulary.*

2. Are the statements True or False? Correct any False statements.

1. A virus is a piece of hardware designed and written to adversely affect your computer by altering the way it works. _____ 2. A virus spreads itself from one file to another without your knowledge. _____ 3. A malignant virus is one that is designed to do no real damage to your computer. _____ 4. Some file infector viruses embed themselves in the memory of the system. _____ 5. Macros are malicious programs that can destroy or change data. _____ 6. Overwriting viruses not only spread malicious code, but also replace the information contained in other programs. _____ 7. Resident viruses can evade antivirus and antimalware software. _____ 8. Because Trojan horses are viruses, files containing them can be repaired. _____ 9. Worms are programs that replicate infecting other programs. _____

3. Look back in the text and find words that have a similar meaning to:

1. change _____
2. spread _____
3. performance _____

4. caprice _____
5. to avoid _____
6. destruction _____

4. Look back in the text and find words that have an opposite meaning to:

1. favourably _____
2. malignant _____
3. originate _____

4. decontaminate _____
5. speed up _____
6. spend _____

5. Find English equivalents in the text:

перешкоджати нормальній роботі комп'ютерних дисків; легкий доступ до всіх ресурсів машини; поширюватись на інші файли чи програми комп'ютера; реалізувати симптом або пошкодження, заплановане злочинцем; приєднуватись до програмних файлів; надсилати як вкладення до електронної пошти; ухилятися від антивірусного та анти-шкідливого програмного забезпечення; робити комп'ютер повністю непридатним для використання; копіювати себе з файлу в файл; створювати модифіковані версії самого себе.

6. Match the words or phrases in two columns to form the word-combination from the text:

1.	to create havoc	a)	useful file or program
2.	to do no real	b)	within an infected system
3.	to look like an ordinary,	c)	of files on a hard disc
4.	to replace the information	d)	damage to your computer
5.	to search for specific types	e)	keys every time
6.	to conceal their presence	f)	on your computer
7.	the most notorious	g)	contained in other programs
8.	to use different encryption	h)	extensions of other programs
9.	to install themselves in the resident	i)	to a computer or other software
10.	to give unauthorized access	g)	polymorphic viruses in existence

7. Match the words *1-10* with the definitions *a)-g).*

1.	spyware	a)	software created to damage or alter the computer data or its operations
2.	crackers	b)	programs that spread by attaching themselves to executable files or documents
3.	malware	c)	the illegal copying and distribution of copyrighted software, information, music and video files
4.	Trojan horse	d)	software designed to collect information from computers for commercial or criminal purposes
5.	worms	e)	bank fraud, to get banking information such as passwords of bank accounts or credit card details
6.	scam	f)	online harassment or abuse, mainly in chat rooms or newsgroups
7.	piracy	g)	computer criminals who use technology to perform a variety of crimes

8.	viruses	h) self-copying programs that destroy information on computers that are connected to each other.
9.	phishing	i) email fraud to obtain money or valuables
10.	cyberstalking	g) malicious programs disguised as innocent-looking files or embedded within legitimate software

8. Identify the Internet crimes sentences (1-6) refer to. Then match them with the advice below (f-f).

1. Crackers try to find a way to copy the latest game or computer program.

a) People shouldn't buy cracked software or download music illegally from the Internet.

2. A study has revealed that half a million people will automatically open an email they believe to be from their bank and happily send off their security details.

b) Be suspicious of wonderful offers. Don't buy if you aren't sure.

3. This software's danger is hidden behind an attractive appearance. That's why it is often wrapped in attractive packages promising photos of celebrities like Jennifer Lopez.

c) It's dangerous to give personal information to people you contact in the chat rooms.

4. There is a particular danger in Internet commerce and emails. Many people believe they have been offered a special gift only to find out later they have been deceived.

d) Don't open attachments from people you don't know even if the subject looks attractive.

5. "Nimda" spreads by sending infected emails and is also able to infect websites, so when a user visits a compromised website, the browser can infect the computer.

e) Scan your email and be careful about which websites you visit.

6. Every day, millions of children spend time in Internet chat rooms talking to strangers. But what many of them don't realize is that some of the surfers chatting with them may be sexual predators.

f) Check with your bank before sending information

9. Answer the following questions on the text:

1. What is a computer virus? Do they spontaneously generate? 2. What are the functions of a virus? 3. What virus payload do we distinguish? 4. What virus is a benign virus? Give the example. 5. What virus is called malignant? 6. What files do file infector viruses select? 7. What is the purpose for designing macro viruses? 8. What viruses render a computer entirely unusable? Why are they designed? 10. What viruses are called polymorphic? How are they distributed? 11. What is a rootkit? Why do hackers use rootkit malware? 12. Why is a Trojan horse dangerous? Why can't files containing them be repaired? 13. What damage do worms do? Why do they slow down the computer?

10. Fill in the blanks with the correct word from the box.

hack	virus	crash	spam	bugs	worm	froze

1. Some viruses are powerful enough to _____ your computer. 2. The computer _____ briefly, but then started working again. 3. The program assists software developers in identifying _____. 4. With the Internet, a _____ can travel a lot faster than it used to. 5. A _____ does not attach itself to other programs, but spreads to computers via the Internet without any user interaction. 6. _____ can be filtered out by means of special software. 7. Political agitators sometimes _____ into government websites, altering pages to include messages in support of their cause.

11. Translate into English:

1. Безсумнівно, найпоширенішим видом злочину є шкідливе програмне забезпечення. 2. Вірус електронної пошти поширюється, надсилаючи свою копію кожному в адресній книзі електронної пошти. 3. Існують віруси, які завдають шкоди через погане програмування та помилки у вірусному коді. 4. Деякі віруси запрограмовані щоб пошкодити дані на вашому комп'ютері шляхом пошкодження програм, видалення файлів або стирання інформації всього жорсткого диска. 5. Віруси не заражають комп'ютерне обладнання, таке як монітори чи комп'ютерні мікросхеми, вони заражають лише програмне

забезпечення. 6. Багато з відомих на даний момент вірусів Macintosh не призначені для заподіяння будь-якої шкоди.

12. Retell the text "Computer viruses" using your active vocabulary.

13. Look at Appendix 2, then fill in the correct particle.

1. No one knows if our country will be able to **get** _____ the economic crisis. 2. What are your neighbours like? Do you **get** _____ them? 3. The victim was apparently trying to **get** _____ when he was shot. 4. I've been trying to **get** _____ you all day, but your phone has been busy. 5. There's been so much work at the office, I haven't **got** _____ checking my email accounts yet. 6. How is your work **getting** _____ at the construction site? 7. You left your phone on the train! How will you **get** it _____? 8. You'd better not **give** _____ this secret to anyone, or I'll be very angry with you. 9.This chemical **gives** _____ a strange smell. 10. Can I borrow that book? I'll **give** it _____ to you tomorrow. 11. After the operation David had to **give** _____ smoking. 12. Their food supplies **gave** _____ sooner than they had planned, so they had to return home. 13. The hijackers finally **gave** themselves _____ to the police.

14. Choose the correct particle and comment on the meaning of the phrasal verbs.

1. They **get** *on/through/away* well at work but not privately. 2. I think you can **get** *on/through/over* the first two chapters. 3. She doesn't **get** *through to/down to/on with* her sister at all, they never agree on anything. 4. The robbers **got** *through to/ away with/down to/* over $100,000 in cash. 5. She **gave** *out/away/in* all her money to the poor. 6. He had to **give** *in/off/up* his stidies through lack of money. 7. Our supply of sugar has **given** *off/out/away*. 8. The operation **gave** her *away/back/up* the use of her legs. 9. The eggs were **giving** *in/out/off* a bad smell. 10. My son kept begging me for a new computer and I finally **gave** *up/in/back*.

15. Translate into English using the right phrasal verb.

1. Я цілий день дзвонив їй (по телефону), але так їй і не додзвонився. 2. Я хотів відвести її в безпечне місце. 3. Нікуди не дінешся від того, що вартість життя постійно зростає. 4. Їй було важко з нею ладити, можливо, через різницю у віці. 5. У нас ще багато роботи, яку потрібно завершити сьогодні. 6. Я роздав більшість своїх книжок, коли закінчив коледж. 7. Відмовитися від роботи було останнім, чого ми очікували від нього. 8. Деякі тварини видають неприємний запах, який відлякує нападників. 9. Облога закінчилася мирно після того, як стрілець здався. 10. Він видав якомога менше інформації. 11. Завтра вранці я поверну тобі ключі. 12. Їжа закінчилася два дні тому.

16. Look at Appendix 3, then choose the correct preposition.

1. I'm glad you're *for/in/at* **time** for the meeting. 2. Sadly, the sailors were lost *in/on/at* **sea**. 3. Mr. Smith will be away from the office *for/by/at* **the rest of** the day. 4. The electrician asked to be paid *by/in/for* **cash**. 5. Quiet! I'm listening to the game *in/on/by* **the radio**. 6. *In/At/By* **the past**, homes were heated with firewood. 7. Scott went *on/for/in* **a trip** to Thailand. 8. Jason says he's *at/in/for* **love with** a famous actress. 9. None for me, please. I'm *in/at/on* **a diet**. 10. *At/In/By* **the end**, they decided to stay in York. 11. I'm interested in buying a car. Is yours *for/on/in* **sale**? 12. The tourists travelled to the island *by/in/on* **boat**.

GRAMMAR

CONDITIONAL SENTENSES

Situation	If-clause	Result clause	Examples
Zero conditional (factual or real conditional)	*simple present*	*simple present* (expresses facts, habist, rules or general truths);	Water *boils* if the temperature *reaches* 100ºC.
		modals (*can, should, might*) + *basic form*;	If the power *goes out*, we *can't watch* TV.
		an imperative verb (gives instructions)	If it *'s* hot here, *open* the window.
First conditional (possible conditional)	*simple present*	*simple future* (expresses things that may happen in the future, such as: offers, predictions, superstitions, plans, promises, suggestions, advice or warnings.	If I *have* enough time tomorrow, I *will write* to my parents. If you *vote* for me, I *will change* the future. If you *leave* the milk out, it *will spoil*.

		If the result is only possible, not certain, we use *might* (not ~~will~~).	If it's hot, we *might* go to the beach.
		We can use *unless* to mean 'if…not'	*Unless* you pay for the broken window, I'll phone the police. (= If you don't pay, …)

1. Translate into Ukrainian:

1. They will clean the hall tomorrow if they have no classes. 2. We will see him rehearsing a new role in case we are allowed to stay in the theatre. 3. If you read the book you will learn how well Marion Anderson was received in many countries. 4. It will be a sensation if they come again. 5. He will buy these brushes unless he finds better ones. 6. If he reads the book he will learn how Marion Anderson worked at her voice. 7. Suppose you see a record with Marion Anderson, buy one for me, please. 8. The actress will agree to play in the film unless the shooting is done in the afternoon when she is not busy. 9. The film will be a success provided some shots are retaken. 10. She says she can give me this book on condition it is returned in two days.

2. Complete the sentences using either zero or first conditional with the verbs in parentheses:

1. If I have enough apples, I (bake) _____ an apple pie this afternoon. 2. I will fix your bicycle if I (have) _____ a screwdriver of the proper size. 3. I (make) _____ a tomato salad for the picnic tomorrow if the tomatoes in my garden are ripe. 4. Jack will shave today if he (have) _____ a sharp razor. 5. Sally always answers the phone if she (be) _____ in her office. 6. An aerosol spray can will explode if you (throw) _____it into a fire. 7. If the teacher (be) _____ absent tomorrow, class will be cancelled. 8. This box has got to be in Chicago tomorrow. I'm going to send it by express mail. I'm sure if I (send) _____ it today by overnight express, it (arrive) _____ in time. 9. If something (be) _____ lighter than water, it (float) _____. 10. Jack will feel a lot better if he (to stop) _____ smoking. 11. If Mark (listen) _____ to the instructions, he will know what to do. 12. If Mary comes, I (tell) _____ definitely _____ her what happened. 13. I (change) _____ my car if

I get a better job, but I'm not sure. 14. We've decided we (lend) _____
them our car if they pay for the petrol. 15. Alan hasn't decided but he thinks that if his
health doesn't improve, he (move) _____ to another town.
_____

3. Translate into English.

1. Він допоможе вам підготувати доповідь, якщо у нього буде вільний час.
2. Вони закінчать свій фільм на наступному тижні, якщо усе буде гаразд. 3. Ми
підемо до музею завтра, якщо він буде відкритий. 4. Це буде чудово, якщо він
напише музику до нашого фільму. 5. Ми почнемо репетицію за умови, що п'єса
сподобається акторам. 6. Я впевнений, що він поїде туди, навіть якщо піде дощ.
7. Він погодиться прийти на вечір за умови, що його не будуть просити співати.
8. Вона виступатиме у концерті за умови, що ви будете їй акомпанувати. 9. Якщо
в мене буде достатньо яблук, я спечу для вас яблучний пиріг. 10. Якщо ви
володієте більш ніж двома іноземними мовами, ви легко знайдете роботу.
11. Вона переїде до Лондона, якщо знайде там роботу. 12. Ми підемо на цю
вечірку, якщо нас запросять.

Situation	If-clause	Result clause	Examples
Second conditional (Unreal present/future)	*simple past*	*would + basic form* We use the 2nd conditional: - to imagine life is different, - to ask hypothetical questions, - to give advice, - to give reasons why you can't do something	If I *had* enough money, I *would buy* a house. If I *won* the lottery, I'*d buy* a new car. What *would* you *do* if you *quit* your job? If I *were* you, I'*d talk* to my boss before I quit my job. If I *wasn't* so busy, I *would invite* you over for dinner.

4. Translate into Ukrainian:

1. If I had money, I would travel round the world. 2. If I were you, I would take
an umbrella. 3. If I were a bird, I could fly. 4. I would buy that vase if I had enough

money. 5. If I were you, I wouldn't tell anyone about it. 6. If I won $1,000,000, I would buy myself a villa by the sea. 7. If I were staying in Vancouver, we could visit them. 8. If I had the day off, I would go shopping. 9. If I had a problem, I would ask for help. 10. If I had a computer, you could work at home. 11. If I were you, I would speak to the instructor. 12. If you lived in that neighborhood, you would know Joseph Taylor. 13. I would go to the meeting if I were not so busy. 14. If you spoke more slowly, I would understand you better. 15. If he were here now, he would help us.

5. Complete the sentences using second conditional with the verbs in parentheses:
1. I am not an astronaut. If I (be) _____ an astronaut, I (take) _____ my camera with me on the rocket ship next month. 2. That sounds like a good job offer. I (accept) _____ it if I (be) _____ you. 3. It is expensive to call across the ocean. However, if transoceanic telephone calls (be) _____ cheap, I (call) _____ my family every day. 4. I (write) _____ to her if I (know) _____ her address. 5. I (mind, not) _____ living in this country if the traffic (be, not) _____ so bad. 6. If you (move) _____ to the UK you (have) _____ to learn to speak English. 7. She (buy) _____ it if she (know) _____ she needed it. 8. The salad (taste) _____ better if you (add) _____ some garlic. 9. We (grow) _____ our own vegetables if we (have) _____ a garden. 10. I (buy, not) _____ that coat if I (be) _____ you. 11. You are always tired. If you (go, not) _____ to bed so late every night, you (be, not) _____ tired all the time. 12. I think there are too many cars. If there (be, not) _____ so many cars, there (be, not) _____ so much pollution. 13. Tom (read) _____ more if he (have) _____ more time. 14. If your mother (be) _____ here, I'm sure she (let, not) _____ you eat all those chocolates. 15. I (be) _____ happy to live in the north of Sweden if it (be, not) _____ for the long nights in the winter.

6. Complete the sentences using first or second conditional with the verbs in parentheses:

1. If I (to be) _____ free tomorrow, I would join you with pleasure. 2. If she (to bring) _____ her work this week, I would be able to look it through and then she will finish it in time. 3. If your brother (to be) _____ here now, he would be surprised at your behavior and I am sure he would not approve of it. 4. If we (to be) _____ not writing this exercise now I would give you my pen. 5. If it (to be raining) _____ now, the children would not be running about in the garden. 6. If your friend (to go) _____ to the booking office now, she will buy a ticket. 7. If she (to want) _____ to see us, she will come to our place tomorrow. 8. If I (not to be) _____ busy with this article, I would help you about the house. 9. If the students (to work) _____ regularly, they will pass their exams. 10. If you (to have) _____ no watch, I would buy you one. But you have a watch, and not a bad one. 11. If we (to go) _____ on holiday this summer, we will go to Spain. 12. If he (to come) _____, I would be surprised. 13. What would she think if she (to see) me? 14. The teacher (to be) _____ angry if you arrive late again tomorrow.15. If you want to arrive earlier, (to take) _____ the train.

Situation	If-clause	Result clause	Examples
Third conditional (Imaginary situation that did not happen in the past)	*past perfect*	*would have + past participle*	If I *had had* enough time, I *would have written* to my parents yesterday.
		We use 3rd conditional: - to regret about the past;	If I *had taken* better care of myself, I *wouldn't have got* sick.
		- to wish we could change something in the past;	If you *had called* me, I *would have come*.
		- to tell someone off about something they did in the past	If she *had replied* to my message, I *wouldn't have been* so worried.

7. Translate into Ukrainian:

1. If we hadn't left so early, we would have missed the plane. 2. If I had been invited to the party, I would have gone. 3. If he had known, he would have told us about it. 4. If he had locked his car, it wouldn't have been stolen. 5. He wouldn't have missed the meeting if he had been on time. 6. If you hadn't been driving so fast, you wouldn't

have crashed into that tree. 7. We wouldn't have got lost if you had brought a map. 8. If he'd known about the meeting, I'm sure he would have come. 9. I would have stayed longer if he had asked me to. 10. If he hadn't committed the crime, he wouldn't have been arrested.

8. Complete the sentences using third conditionals with the verbs in parentheses:
1. If Charlie Chaplin (die) _____ in 1989, he (be) _____ 100 years old. 2. If he (try) _____ harder, he (win) _____. 3. If Jane (come) _____ on her usual train, I (see) _____ her. 4. John F. Kennedy (die, not) _____ in 1963 if he (go, not) _____ to Dallas. 5. I (phone) _____ you if I (loose, not) _____ your phone number. 6. I (go, not) _____ to the museum if I (know) _____ it was shut. 7. I'm sorry you had to take a cab to the airport. If you (tell) _____ me, I (give) _____ you a ride gladly. 8. I got wet because I didn't take my umbrella. However, I (get, not) _____ wet if I (remember) _____ to take my umbrella with me yesterday. 9. Many people were not satisfied with the leader after he took office. If they (know) _____ more about his planned economic program, they (vote, not) _____ for him. 10. You made a lot of unnecessary mistakes in your composition. You (get) _____ a better grade if you (use) _____ either a dictionary or the spell checker on your computer to check your spelling. 11. Ann, (you, take) _____ that job if you (know) _____ that you had to work nights? 12. If the weather (be) _____ nice yesterday, we (go) _____ to the zoo. 13. Linda wasn't at home yesterday. If she (be) _____ at home yesterday? I (visit) _____ her. 14. I'm sorry, Mom. If I (realize) _____ my father was sleeping, I (make, not) _____ so much noise when I came in. 15. Last night Alex ruined his sweater when he washed it. If he (read) _____ the label, he (wash, not) _____ it in hot water.

Situation	If-clause	Result clause	Examples
Mixed conditional	*past perfect*	*would + basic form* *Past action →Present result*	If I *had woken up* earlier, I *would be* at work already.
	past simple	*would have + past participle* *Unreal present condition → Past result*	If he *wasn't injured*, he *would have played* in the game.

9. Translate into Ukrainian:

1. If I were you, I would have invited her. 2. He would have won the race if he were a fast runner. 3. If she had saved her money, she would be going on holiday. 4. She would be at the meeting if she had been told about it. 5. If you had warned me, I wouldn't be in a difficult situation now. 6. I would have given him some advice if I knew him better. 7. He would have won the race if he trained every day. 8. If he had taken his job seriously, he wouldn't be unemployed now. 9. If I had eaten breakfast several hours ago, I wouldn't be hungry now. 10. If he were a good student, he would have studied for the test.

10. Change the following statements into conditional sentences of a mixed type.

1. I'm hungry now because I didn't eat dinner. But if I _____ dinner, I _____ hungry now. 2. The room is full of flies because you left the door open. If you _____ the door open, the room _____ full of flies. 3. You are tired this morning because you didn't go to bed at a reasonable hour last night. But if you _____ to bed at a reasonable hour last night, you _____ tired this morning. 4. I didn't finish my report yesterday, so I can't begin a new project today. But if I _____ my report yesterday, I _____ to begin a new project today. 5. Helen is sick because she didn't follow the doctor's orders. But if Helen _____ the doctor's orders, she _____ be sick. 6. I am not you, so I didn't tell him the truth. But if I _____ you, I _____ him the truth. 7. I don't know anything about plumbing, so I didn't fix the leak in the sink myself. But if I _____ something about plumbing, I _____ the leak in the sink myself. 8. I received a good job offer from the oil company, so I

won't seriously consider taking the job with the electrical firm. But if I _____ a good job offer from the oil company, I _____ seriously _____ taking the job with the electrical firm. 9. He is not a good student because he didn't study for the test yesterday. But if he _____ a good student, he _____ for the test. 10. I didn't work hard when I was young, so I am poor now. But if I _____ hard when I was young, I _____ poor now.11. He didn't do it yesterday so he can't go out tonight. But if he _____ it yesterday, he _____ out now. 12. We put on the raincoats while it was raining, so we are OK now. But if we _____ the raincoats while it was raining, we _____ a bad cold now. 13. I didn't book the holiday on time, so now I'm sitting at home. But if I _____ the holiday on time, I _____ sitting at home now. 14. I didn't practise much, I can't win now. If I _____ more, I _____ now. 15. They didn't support our product when we asked them so they don't get a discount now. If they _____ our product when we asked them, they _____ a discount now.

11. Choose the correct options to complete the following conditional sentences.
1. If I hadn't fought for our relationship, we _____ together now.

    a) wouldn't have been   b) wouldn't be   c) weren't

2. I would be happier if I _____ 'yes' when he asked me to marry him.

    a) would say   b) said   c) had said

3. If John drinks too much coffee, he _____ ill.

    a) get   b) will get   c) got

4. If you weren't such a jerk, they _____ you to yesterday's party.

    a) would have invited   b) would invite   c) had invited

5. If you _____ a map, as I told you, we wouldn't be lost now.

    a) had taken   b) took   c) would have taken

6. If I didn't love you, I _____ you last year.

    a) wouldn't marry you   b) wouldn't have married   c) hadn't married

7. If she had her laptop with her, she _____ (email) me.

    a) would email   b) would have emailed   had emailed

8. If I had more time, I _____ you last night.

    a) would have called   b) would call   c) called

9. If you _____ that job, you would be miserable now.

    a) would accept   b) would have accepted   c) had accepted

10. I'm afraid of flying. If I _____ afraid of flying we'd have travelled by plane.

    a) weren't   b) hadn't been   c) wouldn't have been

11. If I _____ to the party, I wouldn't have met Amanda.

    a) didn't go   b) don't go   c) hadn't gone

12. If you _____ dad's car without permission last night, you might be in trouble.

    a) would have taken   b) took   c) had taken

13. You wouldn't have this job if I _____ you for the interview.

    a) wouldn't have prepared   b) hadn't prepared   c) didn't prepare

14. If Luke _____ in the UK, I will see him more often.

    a) lived   b) lives   c) had lived

15. If she goes to the library, she _____ more.

    a) studies   b) studied   c) will study

12. Write sentence chains with if to show how things could have been different.

Example: *If he hadn't bought a bicycle, he wouldn't have gone for a ride in the country. If he hadn't gone for a ride in the country, he wouldn't have fallen off. If he hadn't fallen off…..*

He bought a bicycle → went for a ride in country → fell off → woke up in hospital → met a beautiful nurse → wrote a bestselling novel about her → got rich → married the beautiful nurse and had three children → lived happily ever after.

13. Translate into English:

1. Ви б почували себе краще, якби не лягали спати так пізно (to keep late hours). 2. Ми б не запізнилися на літак, якби не взяли таксі. 3. Ми б могли піти на каток, якби не було так холодно. 4. Ви б себе добре сьогодні почували, якби прийняли вчора ліки. 5. На вашому місці, я б більше проводив часу на свіжому повітрі. 6. Ви б краще знали мову, якби більше читали книжки в оригіналі. 7. Ви б не розбили вазу, якби були обережнішими. 8. Я повернуся не пізніше шостої години, якщо мене не затримають в університеті. 9. Ви б були вже здорові, якби ви вчасно звернулися до лікаря. 10. Якщо буде дощ, я залишусь вдома. 11. Ти б не розбив машину, якби не їздив так швидко. 12. Ти міг би знайти більше помилок в своєму творі, якби перечитав текст ще раз.

Verb forms following *WISH*

	Verb form in "true" sentences	Verb forms following WISH	*Wish* is used when the speaker wants reality to be different, to be exactly the opposite. *Verb forms* similar to those in conditional sentences are used. *Wish* is followed by a noun clause.
A wish about the future	a) She *will not tell* me. b) He *isn't going to be* here. c) She *can't come* tomorrow.	I wish she *would tell* me. I wish he *were going to be* here. I wish she *could come* tomorrow.	
A wish about the present	d) I *don't know* Spanish. e) It *is snowing* now. f) I *can't speak* French.	I wish I *knew* Spanish. I wish it *weren't snowing* now. I wish I *could speak* French.	
A wish about the past	g) John *didn't arrive*. h) Mary *couldn't come*.	I wish John *had arrived*. I wish Mary *could have come*.	

14. Underline the corresponding verb form.

1. I wish you (saw, had seen) this film. I am sure you would have liked it. 2. I wish you (came, had come) earlier. We should have gone to the museum together. 3. I wish you (had, had had) time to read this article. Now you would be able to answer all the questions. 4. I wish she (informed, had informed) us about of her arrival. We should have met her at the station. 5. I wish all the students (work, worked) regularly. They would get better knowledge and their speech would be more fluent. 6. I wish you (saw, had seen) Nick. He would have told you many interesting things. 7. I wish you (bought, had bought) a ticket for a plane. We should go there together. 8. I wish you (spoke, had spoken) with me yesterday, I should have told you some facts and you would not feel ill at ease now.

15. Using the information in parentheses, complete the sentences.

1. (*The sun isn't shining*.) I wish the sun _____ right now. 2. (*Our classroom doesn't have any windows*.) I wish our classroom _____ windows. 3. (*I wanted you to go*.) I wish you _____ with us to the concert last night. 4. (*I don't know how to dance*.) I wish I _____ how to dance. 5. (*Bill didn't get the promotion*.) I wish Bill _____ the promotion. He feels bad. 6. (*It's cold today. I'm not wearing a coat*.) I wish I _____ a coat. 7. (*I don't have enough money to buy this house*.) I wish I _____ enough money. 8. (*I quit my job*.) I wish I _____ my job until I'd found another one. 9. (*I can't go with you*.) I wish I _____ with you tomorrow. 10. (*My friend won't lend me his car*.) I wish he _____ me his car for my date tomorrow night. 11. (*No one offered to help*.) I wish someone _____ to help us find our way when we got lost in the middle of the city. 12. (*You can't meet my parents*.) I wish you _____ them. 13. (*Jerry didn't come to the meeting*.) I wish he _____ to the meeting. 14. (*Natasha can't bring her children*.) I wish Natasha _____ her children with her tomorrow. They would be good company for mine. 15. *I wanted to win*.) I wish we _____ the game last night.

16. Complete the sentences with an appropriate form of the verbs in parentheses.

1. We need some help. I wish Tom (be) _____ here now. If he (be) _____, we could finish this work very quickly. 2. We had a good time in Houston over vacation. I wish you (come) _____ with us. If you (come) _____ with us, you (have) _____ a good time. 3. I wish it (be, not) _____ so cold today. If it (be, not) _____ so cold, I (go) _____ swimming. 4. I missed part of the lecture because I was daydreaming, and now my notes are incomplete. I wish I (pay) _____ more attention to the lecturer. 5. Did you study for the test? – No, but I wish I (have) _____ because I failed it. 6. Is the noise from the TV in the next apartment bothering you? – Yes. I'm trying to study. I wish he (turn) _____ it down. 7. What a beautiful day! I wish I (lie) _____ in the sun by the sea instead of sitting in a classroom. 8. I

wish we (have, not) _____ to go to work today. 9. He couldn't have said that! You must have misunderstood him. – I wish I (have) _____, but I'm sure I heard him correctly. 10. Ann doesn't like her job as a nurse. She wished she (go, not) _____ to nursing school. 11. I know that something's bothering you. I wish you (tell) _____ me what it is. Maybe I can help. 12. My feet are killing me! I wish I (wear) _____ more comfortable shoes. 13. I wish most world leaders (meet) _____ in the near future and reach some agreement on environmental issues. 14. I know I should give up smoking. I wish you (stop) _____ nagging me about it. 15. Alfred doesn't like his job as a house painter. He wishes he (can paint) _____ canvasses instead of houses for a living.

17. Translate into English:

1. Шкода, що ваші друзі не зателефонували мені. Я б дала їм вашу адресу, і ви могли б зустрітися. 2. Шкода, що я не замовила квитки заздалегідь. 3. Шкода, що йде дощ. 4. Шкода, що він хворіє зараз. 5. Шкода, що його немає в місті зараз, вона б допомогла мені. 6. Шкода, що він нічого не сказав про свою хворобу раніше. 7. Шкода, що вам не вдалося переконати його прийти сюди. 8. Шкода, що цей фільм ніде не йде. 9. Шкода, що зима триває так довго. 10. Шкода, що я не знала, що тобі потрібна ця книжка. Я б могла купити її в Лондоні.

MODAL VERBS

Meaning	Present/Future	Past
ability / lack of ability	He **can** / **can't** draw. They **can't** ski very well. She **is able to** work quickly. She **will be able to** go there.	He **could** / **was able to** draw when he was three. (ability in the past, repeated action) She **was able to** finish her Science project (past single action)
possibility	She **can** find the solution to the problem. (90% certain; it's very possible) It **could** be serious. (50% certain; it's possible) He **may** be ill. (50% certain; it's possible that he's ill) We **might** need some help. (40% certain; perhaps we need some help)	He **could have lost** his job. (thankfully he didn't) They **may have gone** on holiday. (perhaps they did) We **might have needed** to ask for help. (perhaps we needed to)

probability	Robert **should be** home soon. (90% certain; future only; it's probable) They **ought to** win the Champion's League. (90% certain; they will probably win)	She **should have finished** the report by now. (He has probably finished) They **ought to have sent** the parcel by now. (They have probably sent it by now)
logical assumption	He **must** be rich. (90% certain – I'm sure he is rich) They **can't** be tired. They've just woken up. (negative; I'm sure they aren't tired) She **couldn't** possibly be a pilot. She can't fly a plane. (negative; I'm sure she isn't a pilot)	He **must have broken** his leg. (positive; I'm sure he has broken his leg) You **can't have lost** your book. It's in your bag. (negative; I'm sure you haven't lost it) It **couldn't have been** David you saw. He's in Brazil. (negative; I'm sure it was him)
asking for permission	**Can/Could** I open the window, please? (can – informal; could – more polite) **May/Might** I play the lead role? (may – formal; might -more formal)	
giving or refusing permission	We **can/are allowed** to use a dictionary in class. (informal; general permission) You **can't/are not allowed** to bring mobile phones into class. (informal; refusing permission) You **may** take a seat. (formal; giving permission; You are allowed to) I'm afraid you **can't/mustn't** write in pencil. (informal; refusing permission – You aren't allowed to) Visitors **may not** touch the exhibits. (formal; refusing permission – It's forbidden – written notice)	We **could/were allowed** to carry one item of luggage on the plane. (general permission) She **was allowed** to go camping in the forest. (permission for one particular action; NOT: She ~~could go~~ …) We **couldn't/were not allowed** to leave school without permission (no difference in meaning)
prohibition	You **can't** speak during the exam. (you aren't allowed to) You **mustn't** leave litter on the beach. (it's forbidden) You **may not** eat in the laboratory. (formal – it's not allowed)	We **couldn't** speak during the exam. (we weren't allowed to)
obligation/ duty	You **must** pay a membership fee to join the club. (it's a law) We **ought to** support a charity. (it's the right thing to do, but we don't always do it)	He **had to** have a passport to travel abroad. They **ought to** have been more helpful. (it was the right thing to do, but they didn't do it)
necessity	I **must** leave now. It's late. (I'm obliged to, I say so) Tom **has to** hand in his assignment tomorrow. (necessity coming from outside the speaker; he's obliged to) Ann **has got** to train harder. She's unfit. (informal; needs to) My bedroom **needs** painting/**needs to be** painted. (it's necessary)	I **had** to pay my school fees. (I was obliged to) Ann **had to** lock the windows before she left. (She needed to) My bedroom **needed** painting/ **to be painted**. (it was necessary)

absence of necessity	You **don't have to/don't need to/ needn't** pay; it's free (it isn't necessary – absence of necessity)	He **didn't have to/didn't need to** pay; it was free (it wasn't necessary for him to pay and he didn't; absence of necessity) He **needn't have brought** his laptop with him after all. (it wasn't necessary for him to bring his laptop, but he did)
advice	You **should/ought to** stay in bed, you're ill. (general advice; I advise you) You **had better** tidy up your bedroom (advice on a specific situation; it is a good idea) **Shall** I apply for the job? What do you think? (asking for advice; Is it OK if…?)	You **should/ought to** have stayed in bed. (but you didn't) It **would have been** better if you hadn't got angry. (but you did) **Should** I **have applied** for the job?
criticism		She **could** at least **have apologized** to us (but she didn't). She **should have been** more friendly (but she wasn't). You really **ought to have been** more sensitive (it was the right thing to do, but you didn't do it).
requests (asking sb to do sth)	**Can** you help me, please? (informal request) **Could** you make me some tea? (polite request) **May** I see you in private? (formal request) **Might** I see you in private? (very formal request) **Will** you get me my glasses, please? (familiar; Can you…?) **Would you mind** waiting outside? (more polite and formal than **Could you**…?)	
offers (offering to do sth)	**Can** I/we explain this to you? (informal) **Shall** I/we explain this to you? (informal) **Would you like** some more tea?	
suggestions (making suggestions)	**Shall** we go to the cinema tonight? (Let's…) I/We **can** revise for the test on Monday, if you like. I/We **could** go shopping together.	She **could have given** us a lift home.

18. Put in *can / can't / could / couldn't*. If none is possible, use *be able to* in the correct tense. (Modal verbs of Ability)

1. _____ you swim when you were 10? 2. We _____ get to the meeting on time yesterday because the train was delayed by one hour. 3. He _____ arrive at the party on time, even after missing the train, so he was very pleased. 4. He's amazing. He _____ speak 5 languages including Chinese.

5. I _____ drive a car until I was 34, then I moved to the countryside so I had to learn. 6. I looked everywhere for my glasses but I _____ find them anywhere. 7. I searched for your house for ages. Luckily, I _____ find it in the end. 8. She's 7 years old but she _____ read yet – her parents are getting her extra lessons. 9. I read the book three times but I _____ understand it. 10. James _____ speak Japanese when he lived in Japan, but he's forgotten most of it now. 11. I _____ understand the chapter we had to read for homework. It was so difficult. 12. I _____ lift this box – it's too heavy! Would you help me? 13. Lucy _____ make it to our meeting after all. She's stuck in traffic at the moment. 14. John _____ play tennis really well. He's champion of his club. 15. Unfortunately, I really _____ sing at all! No-one in my family is musical either. 16. When the car broke down, I was really pleased because I _____ solve the problem. 17. Julian _____ play excellent golf when he was only ten. 18. My grandmother _____ use a computer until last month. Since then, she's been taking lessons at the library. 19. I _____ open this window. I think it's stuck! 20. Gill _____ play the piano. She's never studied it.

19. Underline one of the modal verbs in brackets to complete the sentence.

1. They (can/might) be away for the weekend but I'm not sure. 2. You (may/might) leave now if you wish. 3. (Could/May) you open the window a bit, please? 4. He (can/could be French, judging by his accent. 5. (May/Can) you play the piano? 6. Listen, please. You (may not/ might not) speak during this exam. 7. They (can't/ may not) still be out. 8. You (couldn't/might not) smoke on the bus. 9. With luck, tomorrow (can/could) be a sunny day. 10. You (can/might) be right but I'm going back to check anyway. 11. The exam (can/might) be easy. You never know. 12. I (can/might) go to the party but I'm not sure yet. 13. Students (may/might) study in the library from five to nine in the evening. 14. (May/Could) you lend me 40 Euros till Monday?

20. Write the missing word in each sentence. Choose from the modal verbs in the box below.

will	must	should	can	may	could	might

1. You _____ borrow the books in this section of the library. 2. To apply for financial aid, you _____ fill out an application form. 3. We _____ to get some milk on the way home. 4. Students _____ stay home if they have the flu. 5. You _____ leave your coats on the bed in the other room. 6. _____ you clean up your room before you go outside? 7. He _____ take a biology class in the spring. 8. I think you _____ wear your blue shirt with those pants. 9. You _____ fix those shoes with some shoe glue. 10. You _____ want to try on some of the salad. 11. You _____ check to see if that book is available on-line. 12. You _____ make a copy of this document. 13. You _____ be nice to your little brother. 14. You _____ have automobile insurance to drive a car in California.

21. Complete the sentences with *can, can't, could, couldn't, must or mustn't*. Sometimes more than one answer is possible.

1. She is a small baby. She _____ eat meat, but she _____ drink milk. 2. He is so ill that he _____ see the doctor. 3. It's raining heavily. You _____ take your own umbrella. 4. We _____ pick the flowers in the park. It's forbidden. 5. I _____ sing now but I _____ sing very well when I was a child. 6. Mike is only nine months old. He _____ eat nuts yet. 7. He has a lot of weight so he _____ run so fast. 8. I'm very tall, so I _____ play basketball.

9. You _____ park that car there. It's a no-parking zone. 10. Many students in Great Britain _____ wear a uniform when they go to school. 11. George has travelled a lot. He _____ speak 4 languages. 12. I _____ come with you now because I'm studying for my test. 13. Footballers _____ touch the ball with their hands. 14. _____ I use your phone? 15. I'm sorry I _____ come yesterday. I had to work late. 16. You _____ speed through the city. It's dangerous! 17. You have been coughing a lot recently. You _____ smoke so much. 18. I'm very tired today. I _____ clean my room now, but I'll do it tomorrow. 19. I _____ eat lasagna when I was a child, but I like it today. 20. We

_____ go to the bank today. We haven't got any money left. 21. You _____ sleep in that room. It's full of boxes and other stuff. 22. I _____ swim very far these days, but ten years ago, I _____ swim over to the other side of the lake. 23. You have a bad headache, so you _____ go to bed earlier. 24. I _____ feed the baby now, so _____ you do it for me? 25. Tourists _____ take their passports with them when they go abroad.

22. Complete the sentences using: *can, can't, must, mustn't, need, needn't, should, shouldn't.*

1. You _____ finish your work, because it's late. 2. We _____ get up early, we _____ be late. 3. Don't be nervous! You _____ be calm. You _____ be nervous. 4. John _____ translate the English text. He _____ learn more. 5. People _____ smoke in this building, because it's forbidden. 6. These boys are too young, they _____ go to the disco. 7. The windows aren't dirty, you _____ clean them. 8. It's very hot in summer. We _____ water the flowers twice a week. 9. The mother _____ to go to the bank, because she hasn't got any money. 10. Jim and Jack have a lot of horses. They _____ ride a horse. 11. I _____ help you, because I don't know the solution. 12. Before dinner people _____ wash their hands. 13. We _____ leave the meeting early, we _____ stay until the end. 14. This girl _____ drink so much cola. It's not healthy. 15. Susan has a lot of free time, she _____ hurry. 16. It's a fantastic movie. You _____ see it. 17. You _____ learn to ride a bike. It's very useful. 18. We _____ forget to visit our grandparents at the weekend. 19. Jim _____ remember to feed his cat before he goes to work. 20. Children _____ eat a chocolate every day. 21. This family _____ buy a bigger house, because this house is too small for them. 22. My friend _____ relax more, because he is depressed. 23. Our mother is very old and ill, she _____ work in the garden. 24. This flat isn't big enough, you _____ rent this one. 25. These documents are very important, we _____ lose them. 26. This dog isn't hungry, you _____ feed it. 27. I _____ speak German fluently,

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because I always learn hard. 28. Tom _____ forget to turn off the TV before he goes to bed. 29. Julia _____ remember to turn off the lights before she goes away. 30. You _____ go home. You _____ stay here if you want. 31. I _____ write an essay now. I _____ do it tomorrow. 32. You _____ be afraid of my dog, because it's very friendly. 33. Our children _____ sing well. They don't have a good ear for music. 34. Children _____ watch Tv so much. They _____ learn more. 35. I _____ forget to do the English homework. 36. Peter _____ work hard, but he is lazy. 37. We _____ eat less chocolate. We are very fat. 38. Children _____ go to school every day. 39. I feel bad, I _____ go to the doctor. 40. You _____ be late, this meeting is very important.

23. Complete the sentences with a modal verb from the box below. Sometimes more than one answer is possible.

may	might	might not	can	can't	could	must	will
mustn't	must have	don't need	needn't	needn't have		should have	

1. We _____ be able to win, but I don't think we have a good chance. 2. That _____ be John. He said he was going to travel to Australia. 3. When I was younger, I _____ sing very well. 4. I think you _____ relax more. You have been working too much lately. 5. I _____ ask you to help me later. 6. She _____ left the house quietly. I didn't hear her. 7. You _____ to go shopping this weekend. We've got everything at home. 8. You _____ go in without a ticket. All seats are reserved. 9. All passengers _____ put on their seatbelts during take-off and landing. 10. At what age _____ you get a driving license in your country? 11. You _____ watered the plants. Dad has already done it. 12. In the US, young men _____ join the army. It's voluntary. 13. I promise I _____ stop smoking. 14. Mom, _____ you pass me the sugar please? 15. If you want to be a teacher, you _____ attend a teacher's training college. 16. They _____ taken the wrong train. Otherwise, they would be here by now. 17. He's not picking up the phone. He _____ be home yet. 18. You _____ taken my advice and gone to the doctor. Your cold is not going to get better if you wait.

19. You _____ park in a no-parking area. It's forbidden. 20. I _____ go to the cinema to watch a movie, but I'm not sure.

24. Complete the sentences with a modal verb from the box below. Sometimes more than one answer is possible.

may	might	can	can't	should	shouldn't	must
have to	has to	needn't	mustn't	don't have to	doesn't have to	

1. _____ I use your pen, please? 2. You really _____ see that new documentary. It's fantastic. 3. You _____ write 30 sentences for homework because you have misbehaved. 4. You _____ to write 300 lines. 30 will be enough. 5. Please, excuse me but I really _____ go now. 6. John, you _____ speak so quickly. Nobody _____ understand you! 7. We _____ watch TV tonight. We haven't decided yet. 8. If you've got such a bad cough, you _____ smoke. 9. I am happy to inform you that I _____ come to work next week. 10. You _____ make so much noise. The baby is sleeping in the next room. 11. She _____ work hard because she's a single parent and has little money. 12. You _____ to go now. The train leaves in an hour, so you've still got some time left. 13. According to the weather report it _____ rain this afternoon. 14. He _____ speak Italian fluently because he spent 5 years there. 15. That _____ be John over there. He said he would be in America this week. 16. You _____ take the test seriously, even if you already have enough good grades to pass. 17. I _____ go out tonight, but I don't think so. I feel too tired. 18. _____ Mary come with us? 19. _____ speak French. I _____ speak English quite well. 20. You _____ take an ID card with you if you enter the stadium. Otherwise you won't get in.

25. Complete each sentence B so that it has a similar meaning to sentence A. Use a modal verb from the box and the correct form of the verb in brackets.

CAN'T	MAY	MIGHT NOT	MUST

1. A : I'm sure schools 50 years ago weren't the same as they are nowadays (BE)

   B : Schools 50 years ago _____ very different from nowadays.

2. A : It's possible Josef went to school by bus . (TAKE)

   B : Josef _____ the bus to school.

3. A : I'm sure their holiday wasn't very nice because the weather was so bad (HAVE).

   B : With such terrible weather , they _____ a very nice holiday.

4. A : I wonder if Jane remembers how to get here (FORGET).

   B : Jane _____ how to get here.

5. A : I'm sure Chloe isn't still looking for her watch (FIND).

   B : Chloe _____ her watch by now.

6. A : We are going in the wrong direction (MISS).

    B : Yes, we _____ a turning.

7. A : Shakespeare and Voltaire weren't alive at the same time, so they definitely never met (KNOW).

B : Shakespeare and Voltaire weren't alive at the same time , so they _____ each other .

8. A : Alison looks happy about her exam results, so she's certainly done well (DO)

   B : Alison looks happy about her exam results, so she _____ well.

9. A : I'm not sure its right to blame Ray for that mistake (MAKE).

   B : Ray _____ that mistake.

10. A : Joe can't open the door . Maybe he can't remember where he put the key (LOSE)

    B : Joe can't open the door. He _____ the key.

26. Complete the sentences with a modal verb from the box below. Sometimes more than one answer is possible.

can	can't	couldn't	could have	had to	might	must
mustn't	would	needn't	should have			

1. It's quite warm outside so you _____ put on a coat. 2. You _____ go home now. You _____ finish writing those emails. They _____ wait until tomorrow. 3. He _____ gone to the doctor when he started feeling ill. Now it's going to take longer for him to recover, 4. According to the weather report it _____ rain today, but I'm not so sure about it. 5. My mother gave me an important letter to post, so I _____ forget to post it. 6. You _____ come if you don't want to. 7. Children _____ play with matches. 8. That _____ be Harry. He said he was going to Paris. What's he doing here? 9. We will _____ take a taxi to the airport, otherwise we _____ miss our plane. 10. I _____ like to go to the cinema with you this weekend. How about it? 11. When I went to Spain for the first time, I _____ speak a word of Spanish. 12. This jewellery is very valuable. My grandmother gave it to me. You _____ look after it carefully and mustn't lose it. 13. She felt ill and _____ leave the office earlier. 14. You _____ be very thirsty. I'll bring you something to drink right away. 15. You _____ buy a lottery ticket this weekend. You _____ win up to 3 million dollars. 16. You _____ informed me about the flight delay. 17. _____ you pass me the sugar, please? 18. You _____ smoke in public places or restaurants. It's against the law.

27. Complete the sentences with *can/can't, could/couldn't, might/might not* and the verb in brackets.

1. Accept their offer. You _____ (get) a better opportunity. 2. Sarah phoned Jane yesterday. They _____ (talk) for a long time because Jane had to go out. 3. John and Anna have a wonderful view from their hotel room. They _____ (see) the whole of the city. 4. Ann won the race. She was so tired after the race that she _____ (not stand up). 5. They _____ (come) to the party tonight. They're very busy. They have a lot of things to do at home. 6. Grandma needs her glasses. She _____ (see) nothing without them. 7. You don't have to shout. I _____ (hear) you very well. 8. We _____ (go) to Greece this summer, but we haven't booked anything yet. 9. He _____ (play) last week because he was injured. 10. She's very

good at music. She _____ (play) three instruments. 11. Don't worry too much about that mistake. It _____ (be) important. 12. We _____ (go) abroad for our holiday this year, because we _____ (afford) the air fare. 13. When my sister was little, she _____ (swim) before she _____ (walk). 14. Please don't speak so quickly. I _____ (understand) you.

28. Choose the correct option.

1. Your hair's too long. I think you _____ get it cut.

    A) have to   B) should   C) *   D) shouldn't

2. Your clothes smell, and you've got a cough. You _____ smoke.

    A) don't have to   B) should   C) shouldn't   D) have to

3. I'm going to bed. I _____ be up early tomorrow.

    A) should   B) shouldn't   C) don't have to   D) have to

4. I'd like to meet your boyfriend. You _____ invite him round.

    A) must   B) have to   C) mustn't   D) don't have to

5. I _____ tell my parents where I am, then they don't worry.

    A) should   B) don't have to   C) have to   D) shouldn't

6. You _____ come with me if you don't want to. I'll go on my own.

    A) don't have to   B) must   C) should   D) shouldn't

7. Our train leaves in two minutes! We _____ hurry.

    A) would   B) have to   C) must   D) don't have to

8. If you need some help with your homework, you _____ go to the library.

    A) should   B) mustn't   C) have to   D) shouldn't

9. If you've got a ticket, you _____ queue. You can go straight in."

    A) shouldn't   B) don't have to   C) have to   D) should

10. You _____ tell lies. It's wrong.

    A) don't have to   B) should   C) have to   D) shouldn't

11. Geoff works too much. I think he _____ take it easy.

    A) must   B) have to   C) should   D) don't have to

12. My bedroom is a real mess. I _____ clean it.

A) have to   B) must   C) don't have to   D) should

13. There's a wonderful new restaurant opened in town. You _____ go there.

    A) shouldn't   B) must   C) don't have to   D) should

14. You can borrow my tennis racquet, but you _____ keep it very well. It was very
    expensive.

    A) don't have to   B) should   C) must   D) have to

15. It's my mother's birthday tomorrow. I _____ buy her a present.

    A) must   B) have to   C) shouldn't   D) don't have to

16. You _____ have a driving license if you want to drive a car.

    A) should   B) have to   C) have   D) had to

17. I don't think people _____ get married until they're 21.

    A) have to   B) would   C) should   D) are

18. They liked the hotel because they _____ do any cooking.

    A) have to   B) had to   C) should   D) didn't have to

19. I _____ swim when I was three.

    A) could   B) can   C) have to   D) must

20. She _____ work on Monday. It's her day off.

    A) doesn't have to B) must   C) have to   D) shouldn't

21. You _____ sit so close to the TV. It's bad for your eyes.

    A) don't have to   B) have to   C) shouldn't   D) can

22. You _____ do the washing-up. I've got a washing machine.

    A) should   B) have to   C) mustn't   D) don't have to

23. "I'm working 16 hours a day." - "I think you _____ talk to your boss."

    A) have to   B) can   C) mustn't   D) should

24. "I can't sleep." - "You _____ drink coffee at night."

    A) must   B) shouldn't   C) don't have to   D) have

25. "My friend is getting married." - "I _____ go to the wedding."

    A) think you should   B) think you have to

    C) think you can   D) think you may

29. Fill in *can, could, have to* in the necessary form.

1. I _____ work very hard because I have an exam next week. 2. You _____ work hard after your exam. You can have a holiday. 3. I phoned the plumber because I _____ smell gas in the kitchen. 4. Jane and John saved and saved, and finally they _____ buy the house of their dreams. 5. My father is a customs official so he always _____ wear a uniform at work, but my mother is a teacher so she _____ wear one. 6. _____ you speak French before you moved to Paris? 7. I can't see the small print very well. I think I _____ wear glasses soon. 8. I phoned yesterday, but I _____ get an answer. Where were you? 9. _____ we _____ have any vaccinations before we go to Barbados? 10. I went for a ten-mile run last Saturday. It nearly killed me! I _____ move on Sunday. 11. ___ your grandmother __ leave school when she was only fourteen? 12. Speak up! I _____ hear you! 13. If I fail my exam, _____ I _____ take it again? 14. _____ you _____ find all the things you wanted at the shops? 15. _____ I borrow your dictionary? 16. I'd love _____ help you, but I can't. I'm sorry. 17. The police _____ find the man who had stolen my car. He was sent to prison. 18. When we got to the top of the mountain we _____ see for miles. 19. Children in my country _____ go to school when they're 7. 20. I _____ get into my house last night because I'd lost my key. 21. I'm learning Spanish because I want ___ speak when I'm in Mexico.

30. Put in "*must+infinitive*" or "*must+have+participle*":

1. Anna always does really well on exams. She _____ (study) a lot. 2. That woman drives a very expensive car. She _____ (have) a lot of money. 3. You _____ (practise) a lot before you gave your speech. It was really good. 4. When my sister got home yesterday there were flowers on the table. Her husband _____ (buy) them. 5. Where is my umbrella? I saw it earlier, so it _____ (be) in this room. 6. I couldn't find my glasses. Mother thought I _____ (leave) them at my office. 7. It _____ (be) cold outside. That man in the street is wearing a coat. 8. All my plants _____ (be) dead! I forgot to water them before I went on holiday. 9. Tom is so late! He _____ (miss) the bus! 10. Anna has a huge library in her house. She _____ (love)

books. 11. Oh no, I don't have my keys! I _____ (leave) them in the taxi. 12. When I got home, I found the ice cream had melted. It _____ (be) too hot in the car. 13. If you haven't eaten all day, you _____ (be) hungry. 14. It _____ (rain) a lot in the night. There are puddles everywhere. 15. John _____ (eat) all the biscuits! There are none left.

31. Translate into English using modal verbs:

1. Ви зможете взяти участь у обговоренні цього питання? 2. Він не міг працювати в саду, оскільки йшов дощ. 3. Мері не могла запросити так багато гостей на вечірку. 4. Ольга не могла повірити, що він зараз у Києві. 5. Я зможу тобі дати книжку на кілька днів після того, як прочитаю її сам. 6. Невже це правда? 7. Не може бути, щоб Стів приїхав. Ми лише вчора отримали телеграму. 8. Джері, можливо, приїде через тиждень, оскільки він, напевно, отримав наше запрошення. 9. Лео дав мені статтю, щоб я міг перекласти її вдома. 10. Цей лист потрібно відправити наступного тижня. 11. Мені потрібно йти туди? – Ні, не потрібно. 12. Марк змушений буде піти в офіс завтра. 13. Дощ лив як з відра і він був змушений взяти парасольку. 14. Микола обов'язково повинен піти на цю зустріч. 15. Що потрібно зробити, щоб бути здоровим? 16. Ви змушені будете прийти до мене, якщо ліки не допоможуть. 17. Джек, напевно не зрозумів, що помилився. 18. Очевидно, Оскар недосвідчений хірург. 19. Цю виставу, напевно, варто подивитися. 20. Через погану погоду, матч, напевно, відклали. 21. Ця монета, напевно, дуже цінна. 22. Мені слід йти туди зараз? 23. Не слід купувати костюм без примірки. 24. Якщо ви не хочете запізнитися на літак, вам слід взяти таксі. 25. Вам слід було б розказати Майклу про це раніше. 26. Я думаю Ганні слід було б вибачитись тоді. 27. Цей товар можна купити скрізь. 28. Наш план потрібно виконати до кінця тижня. 29. Їм не прийшлося брати таксі. Вони добрались до аеропорту вчасно на автобусі. 30. Лео не було необхідності посилати цей лист авіапоштою. 31. Ользі не потрібно було йти в магазин сьогодні. Мама все купила. 32. Даремно ти полив квіти в саду. Завтра буде дощ.

MODULE 3.
Text 1. ROBOTICS

- What is a robot?
- What image comes to your mind at the mention of this word?
- What do you know about the latest developments in the field of robotics?
- What advantages and disadvantages of robots can you think of?

cryogenics	кріогеніка	mundane work	буденна робота
deleterious consequences	згубні наслідки	objective	мета
		replacement	заміна
displacement	переміщення	science fiction	наукова фантастика
exploration	розвідка, дослідження	serf	кріпак
extension	розширення	substantially	суттєво, істотно
fiction	вигадка	to be coveted in	користуватися попитом
furnace	піч		
hostile environments	вороже середовище	to give credit	віддавати належне
		to harm	шкодити
long-standing fascination	давнє захоплення	to relieve	звільняти
		to violate rules	порушувати правила
long-term costs	довгострокові витрати		

Robotics is a branch of engineering that involves the conception, design, manufacture and operation of robots. The objective of the robotics field is to create intelligent machines that can assist humans in a variety of ways.

While the field of robotics and exploration of the potential uses and functionality of robots have grown substantially in the 20th century, the idea is certainly not a new one.

The term robotics is an extension of the word robot. One of its first uses came from Czech writer Karel Čapek, who used the word in his play, Rossum's Universal Robots, in 1920. The term robot derived from the Czech word robota, meaning forced work or compulsory service, or robotnik, meaning serf.

However, it is science fiction author Isaac Asimov who has been given credit for being the first person to use the term in the 1940s by Oxford English Dictionary. Isaac Asimov, in 1940, formulated the Laws of

Robotics which have survived to the present: 1. Robots must never harm human beings. 2. Robots must follow instructions from humans without violating rule 1. 3. Robots must protect themselves without violating the other rules.

The laws quickly attracted – and have since retained – the attention of readers. Asimov's fiction even influenced the origins of robotic engineering. Engelberger, who built the first industrial robot, called Unimate, in 1958, attributes his long-standing fascination with robots to his reading of Asimov's "I, Robot" when he was a teenager. The term robotics, which Asimov claims he coined in 1942, refers to a science or art involving artificial intelligence (to reason) and mechanical engineering (to perform physical acts suggested by reason).

Robotic systems are coveted in many industries because they can increase accuracy, reduce cost and increase safety for human beings.

Robotics offers benefits such as high reliability, accuracy, and speed of operation. Low long-term costs of computerized machines may result in significantly higher productivity, particularly in work involving variability within a general pattern. Humans can be relieved of mundane work and exposure to dangerous workplaces. Their capabilities can be extended into hostile environments involving high pressure (deep water), low pressure (space), high temperatures (furnaces), low temperatures (ice caps and cryogenics), and high radiation areas (near nuclear materials or occurring naturally in space).

On the other hand, deleterious consequences are possible. Robots might directly or indirectly harm humans or their property; or the damage may be economic or immaterial (for example, to a person's reputation). Indirect harm may occur to workers, since the application of robots generally results in job redefinition and sometimes in outright job displacement. Moreover, the replacement of humans by machines may underline the self-respect of those affected and perhaps of people generally.

However, there are certain tasks that are simply better suited for humans – for example, those jobs that require creativity, adaptability and critical decision-making skills.

(Adapted from https://www.techtarget.com/whatis/definition/robotics)

EXERCISES

1. Read and translate the text. Learn the words from *Basic Vocabulary.*

2. Are the statements True or False? Correct any False statements.

1. The objective of the robotics field is to create intelligent machines that can replace humans in a variety of ways. _____ 2. Karel Čapek was one of the first users of the term robotics. _____ 3. The term robot derived from the Ukrainian word. _____ 4. There are four rules of robotics formulated by Asimov. _____ 5. The first industrial robot was called Unimate. _____ 6. Robotic systems can increase accuracy, reduce cost and increase safety for human beings. _____ 7. Robotics offers many benefits. _____ 8. Robots cannot result in deleterious consequences. _____ 9. Jobs that require creativity, adaptability and critical decision-making skills are better suited for robots. _____

3. Look back in the text and find words that have a similar meaning to:

1. area _____
2. research _____
3. essentially _____
4. be in demand _____

5. results _____
6. substitution _____
7. emphasize _____

4. Look back in the text and find words that have an opposite meaning to:

1. to follow rules _____
2. beneficial _____
3. extraordinary _____

4. friendly _____
5. exclude _____

5. Find English equivalents in the text:

створювати розумні машини, функціональність роботів, краще підходити для людей, крижані шапки та кріогенетика, завдавати шкоди людям або їхньому майну, вимагати навичок критичного прийняття рішень, підвищувати безпеку, значно вища продуктивність праці, зони високої радіації.

6. Match the words or phrases in two columns to form the word-combination from the text:

1. manufacture and operation
2. to offer reliability,
3. directly or indirectly harm
4. work involving variability
5. to damage
6. to result in job redefinition
7. to involve artificial intelligence
8. to refer

a) and mechanical engineering
b) a person's reputation
c) to a science or art
d) of robots
e) within a general pattern
f) accuracy, and speed of operation
g) humans or their property
h) and in outright job displacement

7. Match the words *1-10* with the definitions *a-j*.

1.	objective, n	a)	the branch of physics dealing with the production and effects of very low temperatures
2.	displacement	b)	to think, understand, and form judgements logically
3.	deleterious	c)	a result or effect, typically one that is unwelcome or unpleasant.
4.	Cryogenics	d)	the action of putting something into operation
5.	to reason	e)	the action of moving something from its place or position
6.	application	f)	a thing aimed at or sought; a goal
7.	consequences	g)	causing harm or damage
8.	redefinition	h)	the quality of being able to adjust to new conditions
9.	self-respect	i)	pride and confidence in oneself; a feeling that one is behaving with honour and dignity.
10.	adaptability	j)	the action or process of defining something again or differently

8. Answer the following questions on the text:

1. What is robotics? 2. What is the main objective of the robotics? 3. How did the word robot appear? 4. Who coined the term robotics? What does it mean? 5. What do the Laws of Robotics consist in? 6. When was the first industrial robot built? 7. Why do many industries covet robotic systems? 8. What benefits does robotics offer? 9. What are the drawbacks of robots? 10. What tasks are there that are better suited for humans?

9. Translate into English:

1. Робот повинен виконувати накази, які йому дають люди. 2. Термін «робот» походить від чеського слова robota, що означає примусову роботу або обов'язкову службу. 3. Енгельбергер створив першого промислового робота. 4. Низькі довгострокові витрати на комп'ютеризовані машини можуть призвести до значно вищої продуктивності праці. 5. Можливості роботів можна поширити на несприятливі навколишні середовища. 6. Корпорація Майкрософт рішуче стверджувала, що її маркетингові дії не порушують закон.7. Ці завдання вимагають креативності, адаптивності та навичок прийняття критично важливих рішень.

10. Retell the text "Robotics" using your active vocabulary.

11. Look at Appendix 2, then fill in the correct particle.

1. When I got stuck in the lift I **called** _____ for help. 2. The football match was **called** _____ because it was snowing. 3. The fire brigade was **called** _____ when a bomb exploded in the city centre. 4. I'll **call** _____ to see Ted on my way to work. He isn't feeling well. 5. Looking after very small children **calls** _____ a lot of patience. 6. Helen might oppose this idea now, but I'm sure she'll **fall** ___ _____ it soon. 7. The problems generally **fall** _____ two categories. 8. John was called into the manager's office because he had **fallen** _____ with his work. 9. Without Sue leading the team, it could **fall** _____. 10. Don't **fall** _____ the trap of thinking you can learn a foreign language without doing any work.

12. Translate into English using the right phrasal verb.

1. Поводження з такими травмованими дітьми вимагає великої тактовності й чуйності. 2. Чи не міг би ти зайти до мами по дорозі додому? 3. Поїздка до Італії може бути скасована. 4. На пожежу в будинку завжди слід викликати пожежну бригаду. 5. Поїзд зупинився, і носильник гукнув: «Міддлсбро!» 6. Будинки почали руйнуватися. 7. Я думав, що вся зустріч зірветься, але ви врятували її як справжній професіонал! 8. Обидві жінки належать до групи ризику. 9. Будинок — це моя відповідальність, і я не можу дозволити йому просто розвалитися.

10. Він не буде слухати жодної пропозиції, яка не вписується в його схему.

11. Через пристрасть до комп'ютерних ігор він відстає в класі.

13. Look at Appendix 4, then fill in the correct preposition.

1. I am really angry at Scott for putting all the **blame** _____ Eric. 2. Mandy has such great **taste** _____ clothes. 3. Psychologists are studying the **relationship** _____ colour and emotion. 4. They took no **notice** _____ the girl sitting in the corner of the room. 5. Don't panic. There is a **solution** _____ every problem. 6. "Here's the **picture** _____ good health," said the doctor. 7. Mr. Tailor spoke to the class about the **disadvantages** _____ online learning. 8. It is used as a **remedy** _____ colds. 9. I've never had an **aptitude** _____ figures or mental arithmetic. 10. Is there any restrictions _____ the number of books we can borrow from the library? 11. I'm **scared** _____ heights. Aren't you? 12. Teen girls are **crazy** _____ the new rock band. 13. Meagan's parents are **proud** _____ her and all her accomplishments. 14. "Not many people are **qualified** _____ for this position.," said the manager. 15. You are **capable** _____ anything if you put your mind to it. 16. The jury was convinced he was **guilty** _____ the crime. 17. They hate any kind of change. – Yes, they're extremely **resistant** _____ it. 18. Are the trains running on tome yet? – No, they are still **subject** _____ delays. 19. Who is Jack **married** _____?

Text 2. ROBOTS AND AUTOMATA

Basic Vocabulary

arc welding	дугове зварювання	testing swabs	тампони для тестування
decrement	зниження	thrifty-minded	бережливий, економний
gear	спорядження	to adjust	відрегулювати
impediment	перешкода	to augment	збільшувати
joint	суглоб	to incur	нести (витрати)
redundant	зайвий, надлишковий	to overstate	перебільшувати
tedious	виснажливий	vigilance	пильність

A **robot** is the product of the robotics field. It is a computer-programmed machine that performs actions, manipulates objects, etc. in a precise and, in

many cases, repetitive way. Robots may be **automata**, or man-like machines, whose basic components are similar to a human body. They have mechanical links, **joints**, which connect their movable parts. Their heart and muscles are the electric or pneumatic motors or systems, the **actuators**, which create the movement. Robots also have hands, usually tools or grippers, called **end effectors**. They may be equipped with cameras or infrared controls, sensors, which transmit information to the central system in order to locate objects or adjust movements. Finally, robots depend on a computer system, the brain that directs the actions.

Robots are helpful in activities that are too dangerous, too boring or too precise for human beings. Here is a list of a few kinds of robots we see today:

Manufacturing: The field of manufacturing was the first to adopt robots, such as the automobile assembly line machines we previously mentioned. Industrial robots handle various tasks like arc welding, material handling, steel cutting, and food packaging.

Healthcare: Robots in the healthcare industry do everything from assisting in surgery to physical therapy to help people walk to moving through hospitals and delivering essential supplies such as meds or linens. Healthcare robots have even contributed to the ongoing fight against the pandemic, filling and sealing testing swabs and producing respirators.

Space Exploration: Mars explorers such as Sojourner and Perseverance are robots. The Hubble telescope is classified as a robot, as are deep space probes like Voyager and Cassini.

Logistics: Everybody wants their online orders delivered on time, if not sooner. So, companies employ robots to stack warehouse shelves, retrieve goods, and even conduct short-range deliveries.

Military: Robots handle dangerous tasks, and it does not get any more difficult than modern warfare. Consequently, the military enjoys a diverse selection of robots equipped to address many of the riskier jobs associated with war. For example, there is the Centaur, an explosive detection/disposal robot that looks for mines and IEDs, the MUTT, which follows soldiers around and totes their gear, and SAFFiR, which fights fires that break out on naval vessels.

Artificial Intelligence (**AI**) is the science that tries to recreate the human thought process and build machines that perform tasks that normally require human intelligence. It has several applications:

- **Androids** are anthropomorphic robots designed to look and behave like a human being. Most androids can walk, talk and understand human speech. Some react to gestures and voice inflection. Some 'learn' from the environment: they store information and adapt their behavior according to a previous experience.
- **'Expert systems'** is the term given to computer software that mimics human reasoning, by using a set of rules to analyze data and reach conclusions. Some expert systems help doctors diagnose illnesses based on symptoms.

Neural networks are a new concept in computer programming, designed to replicate the human ability to handle ambiguity by learning from trial and error. They use silicon neurons to imitate the functions of brain cells and usually involve a great number of processors working at the same time.

Homelife: You need look no further than a Roomba to find a robot in someone's house. But they do more now than vacuuming floors; home-based robots can mow lawns or augment tools like Alexa.

Entertainment: We already have toy robots, robot statues, and robot restaurants. As robots become more sophisticated, expect their entertainment value to rise accordingly.

Like any innovation today, robots have their plusses and negatives. Here is a breakdown of the good and bad about robots.

Advantages

• They work in hazardous environments: Consider how preferable it is to have a robot fighting a fire or working on a nuclear reactor core.

• They are cost-effective: Robots do not take sick days or coffee breaks, nor need perks like life insurance, paid time off, or healthcare offerings like dental and vision.

• They increase productivity: Robots are wired to perform repetitive tasks ad infinitum; the human brain is not. Industries use robots to

accomplish the tedious, redundant work, freeing employees to tackle more challenging tasks and even learn new skills.

• They offer better quality assurance: Vigilance decrement is a lapse in concentration that hits workers who repeatedly perform the same functions. As the human's concentration level drops, the likelihood of errors, poor results, or even accidents increase. Robots perform repetitive tasks flawlessly without having their performance slip due to boredom.

Disadvantages

• They incur deep startup costs: Robot implementation is an investment risk, and it costs a lot. Although most manufacturers eventually see a recoup of their investment over the long run, it is expensive in the short term. However, this is a common obstacle in new technological implementation, like setting up a wireless network or performing cloud migration.

• They might take away jobs: Robots in certain situations, like assembly lines, have replaced some people for instance. Whenever the business sector incorporates game-changing technology, some jobs become casualties. However, this disadvantage might be overstated because robot implementation typically creates a greater demand for people to support the technology, which brings up the final disadvantage.

• They require companies to hire skilled support staff: This drawback is good news for potential employees, but bad news for thrifty-minded companies. Robots require programmers, operators, and repair personnel. While job seekers may rejoice, the prospect of having to recruit professionals (and pay professional-level salaries!) may serve as an impediment to implementing robots.

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EXERCISES

1. Read and translate the text. Learn the words from *Basic Vocabulary*.

2. Are the statements True or False? Correct any False statements.

1. Automata or man-like machines, whose basic components are similar to a human body, have manual links. _____ 2. Robots depend on a computer system. _____

3. Most androids cannot walk, talk and understand human speech. _____ 4. 'Expert

systems' is the term given to computer hardware that mimics human reasoning, by using a set of rules to analyze data and reach conclusions. _____ 5. Neural networks are designed to replicate the human ability to handle ambiguity by learning from trial and error. _____ 6. Robots work in secure environments and are uneconomical. _____ 7. Robot implementation typically creates a less demand for people who support technology. _____ 8. The prospect of having to recruit professionals may serve as an impediment to implementing robots. _____

3. Look back in the text and find words that have a similar meaning to:

1. junction _____   6. monotonous _____

2. economical _____   7. various _____

3. obstacle _____   8. disadvantage _____

4. victim _____   9. employ _____

5. processing _____   10. get back _____

4. Look back in the text and find words that have an opposite meaning to:

1. supply _____   5. simple _____

2. manual _____   6. to fire staff _____

3. fixed _____   7. similar _____

4. interesting _____

5. Find English equivalents in the text:

Справлятися з різними завданнями, налаштування бездротової мережі, наймати кваліфікований допоміжний персонал, економні компанії, перешкода для впровадження роботів, створювати більший попит, нести значні початкові витрати, обробка матеріалів, здійснювати доставку на короткі відстані,

6. Match the words or phrases in two columns to form the word-combination from the text:

1.	to be equipped	a)	of having to recruit professionals
2.	to contribute to	b)	their investment over the long run

3.	the prospect	c)	to conduct short-range deliveries
4.	to incorporate	d)	with cameras or infrared controls
5.	to see a recoup of	e)	and produce respirators.
6.	to employ robots	f)	to accomplish the tedious, redundant work
7.	fill and seal testing swabs	g)	game-changing technology
8.	a common obstacle	h)	of brain cells
9.	to use robots	i)	the ongoing fight against the pandemic
10.	to imitate the functions	j)	in new technological implementation

7. Match the words with the definitions.

1.	actuator	a)	to state too strongly; exaggerate.
2.	androids	b)	exact, accurate
3.	arc welding	c)	a gradual decrease in quality or quantity
4.	to overstate	d)	a device that causes a machine or other device to operate
5.	an obstacle	e)	a technique in which metals are welded using the heat generated by an electric arc
6.	precise	f)	one type of end effector
7.	to recoup	g)	anthropomorphic robots designed to look and behave like a human being
8.	decrement	h)	a thing that blocks one's way or prevents or hinders progress
9.	grippers	i)	to carry by hand
10.	to tote	j)	to regain or make good (a financial or other loss)

8. Read the text and fill in the missing words from the box:

assist	to perform	monotonous	fully-autonomous
robotics	autonomy	assisting with	human-controlled

A robot is the product of the (1) _____ field, where programmable machines are built that can (2) _____ humans or mimic human actions. Robots were originally built to handle (3) _____ tasks (like building cars on an assembly line), but have since expanded well beyond their initial uses (4) _____ tasks like fighting fires, cleaning homes and (5) _____ incredibly intricate surgeries. Each robot has a differing level of (6) _____, ranging from (7) _____ bots that carry out tasks that a human has full control over to (8) _____ bots that perform tasks without any external influences.

9. Answer the following questions on the text:

1. What is a robot? 2. What parts does a robot consist of? 3. What may robots be equipped with? 4. What activities are robots helpful in? 5. How are robots used in manufacturing? 6. Are robots useful in healthcare? 7. What robots are used in space exploration? 8. What are the functions of robots in logistics? 9. What risky jobs associated with war do robots perform? 10. What is Artificial Intelligence? 11. What robots are called androids? 12. What is meant by 'expert systems'? 13. What is a new concept in computer programming? 14. Can robots be used in entertainment? 15. What are the advantages of robots? 16. Are there any disadvantages of robots? Name some of them.

10. Read the e-mail from an engineer at Powell Technologies.

To Carl
|carl@email.com|
From: Lisa |lisa@powell-technologies.com
Subject: Technical Problems with New Robot
Carl,
*The robotics team here at Powell Technologies is currently developing an **autonomous, serial robot**. Its main function is to assist in packaging and sealing large boxes at factories. However, we are having some technical problems. I know you've worked on robots before. I hope you have some advice for solving the problem.*
*The robot consists of a **manipulator** with **joints** and an **end-effector** at the top. This acts like a hand. There is an **enabling device** on the robot that allows it to move. The operator uses a **pendant** to control the robots **actuators**. This creates the **drive power** that makes the robot move. The enabling device appears to be working. But we cannot get the **actuators** to respond. I looked over the **dynamic model** and didn't find any errors. Do you think there is a problem with the **equality constraint**? I would greatly appreciate any help.*
Thanks,
Lisa

11. Read the summary of the passage. Fill in the blanks with the correct words and phrases from the box.

| dynamic model | end-effector | actuators | serial robot |
| enabling device | equality | | |

Lisa has a problem with the (1) _____ _____ her team is developing. The robot has a manipulator with a(n) (2) _____ at the top. The robot's (3) _____ _____ is working properly. But the (4) _____ are not responding. Lisa found no errors in the (5) _____. She's wondering if there's a problem with the (6) _____ constraint.

12. Match the words (1-9) with the definitions (A-1).

1	drive power	A	the hand or tool at the end of a robot's manipulator
2	robotics	B	the arm of a robot
3	end-effector	C	a device used to control and guide a robot's movements
4	autonomous	D	operating without help from humans
5	serial robot	E	the energy that makes a robot move
6	pendant	F	a piece of equipment that makes a robot move
7	joint	G	a robot that consists of a single series of linked joints
8	manipulator	H	the places where the parts of a robot connect
9	actuator	I	the scientific study of robots and their structure and movement

13. Translate into English:

1. Для роботів потрібні програмісти, оператори та ремонтний персонал. 2. Впровадження роботів зазвичай створює більший попит на людей, які підтримують новітні технології. 3. Промислові роботи виконують різноманітні завдання, такі як дугове зварювання, обробка матеріалів, різання сталі та пакування харчових продуктів. 4. Медичні роботи зробили внесок у боротьбу з сучасною пандемією. 5. Втрата концентрації уваги вражає працівників, які постійно виконують ті самі функції. 6. Компанії використовують роботів для отримання товарів і навіть здійснення доставки на короткі відстані. 7. Роботи

містять принаймні певний рівень комп'ютерного програмування. Без набору кодів, які вказують йому, що робити, робот був би просто ще одним елементом простої машини. 8. Усі роботи складаються з певної механічної конструкції, яка допомагає йому виконувати завдання в середовищі, для якого він розроблений.

14. Retell the text "Robots and Automata" using your active vocabulary.

15. Look at Appendix 2, then choose the correct particle and comment on its meaning.

1. The committee released the findings from the investigation, but **kept** *on/back* a considerable amount of information. 2. If you **keep** *up with /on* eating sweets like that, you will develop a health problem. 3. You can go to the football match as long as you **keep** *out of/off* trouble. 4. This is the best online site to **keep** *up with/out of* the weather forecast. 5. I do try to **keep** *away from/out of* fattening foods, but my greatest weakness is chocolate cake. 6. The newly formed bridge companies encouraged competition to **keep** *down/up with* prices. 7. She is talented dancer. She **takes** *after/for* her mum. 8. I'm planning to **take** *down/up* Tai Chi. Do you want to join me? 9. His acting career really **took** *off/of* after he starred in the hit sitcom. 10. We really need to dress up. They're **taking** us *in/out* to a fancy restaurant. 11. Although our cat is usually frightened of children, it **took** *after/to* your son right away. 12. Michelle will **take** *over/for* from Gordon when he retires.

16. Replace the underlined words with a phrasal verb with the same meaning.

1. Cindy <u>concealed</u> information from the police. _____ 2. The government is trying to <u>control</u> inflation. _____ 3. I can't <u>pace with</u> these changes in fashion. _____ 4. Prices <u>continue</u> increasing. _____5. I try to <u>stay away from</u> their family quarrels. _____ 6. He was somewhat <u>surprised</u> by the news that the police intended to arrest him. _____ 7. Don't <u>be deceived</u> by his promises. _____ 8. The plane will <u>leave the ground</u> in a minute. _____ 9. It took me a long time <u>to understand</u> what you were saying. _____ 10. I'm not sure if he'll <u>like</u> the idea. _____

Text 3. THE FUTURE OF ROBOTICS

Basic Vocabulary

burdensome	обтяжливий	prophet	пророк
doom	загибель	to discern	розрізняти
dystopian-minded	антиутопічний	to gain the fine	розвивати дрібну
enhanced	розширений	motor skills	моторику
entity	об'єкт	to mimic	імітувати
independent of	незалежно від	to self-navigate	самостійно
in-house training	внутрішнє навчання		орієнтуватися
Motion Control	Управління рухом	upskilling	підвищення
overlap	часткове співпадіння		кваліфікації

Artificial Intelligence (AI) increases human-robot interaction, collaboration opportunities, and quality. The industrial sector already has co-bots, which are robots that work alongside humans to perform testing and assembly.

Advances in AI help robots mimic human behavior more closely, that is why they were created in the first place. Robots that act and think more like people can integrate better into the workforce and bring a level of efficiency unmatched by human employees.

Robot designers use Artificial Intelligence to give their creations enhanced capabilities like:

- Computer Vision: Robots can identify and recognize objects they meet, discern details, and learn how to navigate or avoid specific items.

- Manipulation: AI helps robots gain the fine motor skills needed to grasp objects without destroying the item.

- Motion Control and Navigation: Robots no longer need humans to guide them along paths and process flows. AI enables robots to analyze their environment and self-navigate. This capability even applies to the virtual world of software. AI helps robot software processes avoid flow bottlenecks or process exceptions.

- Natural Language Processing (NLP) and Real-World Perception: Artificial Intelligence and Machine Learning (ML) help robots better understand their surroundings, recognize and identify patterns, and

comprehend data. These improvements increase the robot's autonomy and decrease reliance on human agents.

Software robots are computer programs that perform tasks without human intervention, such as web crawlers or chatbots. These robots are entirely virtual and not considered actual robots since they have no physical characteristics.

This technology should not be confused with robotic software, which is loaded into a robot and determines its programming. However, it is normal to experience overlap between the two entities since, in both cases, the software is helping the entity (robot or computer program) perform its functions independent of human interaction.

Thanks to improved sensor technology and more remarkable advances in Machine Learning and Artificial Intelligence, robots will keep moving from mere rote machines to collaborators with cognitive functions. These advances, and other associated fields, are enjoying an upwards trajectory, and robotics will significantly benefit from these strides.

We can expect to see more significant numbers of increasingly sophisticated robots incorporated into more areas of life, working with humans. Contrary to dystopian-minded prophets of doom, these improved robots will not replace workers. Industries rise and fall and some become obsolete in the face of new technologies, bringing new opportunities for employment and education.

That is the case with robots. Perhaps there will be fewer human workers welding automobile frames, but there will be a greater need for skilled technicians to program, maintain, and repair the machines. In many cases, this means that employees could receive valuable in-house training and upskilling, giving them a set of skills that could apply to robot programming and maintenance and other fields and industries.

Robots will increase economic growth and productivity and create new career opportunities for many people worldwide. However, there are still warnings out there about massive job losses, forecasting losses of 20 million manufacturing jobs by 2030, or how 30% of all jobs could be automated by 2030.

However, thanks to the consistent levels of precision that robots offer, we can look forward to robots handling more of the burdensome, redundant manual labor tasks, making transportation work more efficiently, improving healthcare, and freeing people to improve themselves. But, of course, time will tell how this all works out.

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EXERCISES

1. Read and translate the text. Learn the words from *Basic Vocabulary*.

2. Are the statements True or False? Correct any False statements.

1. AI increases human-robot interaction, collaboration opportunities, and quality. ___

2. Robots that act and think more like people can bring a level of efficiency matched by human employees. _____ 3. Robots still need humans to guide them along paths and process flows. _____ 4. Hardware robots perform tasks without human intervention. _____ 5. Software robots have no physical characteristics. _____ 6. Robotic software is loaded into a robot and determines its programming. _____ 7. Robotics will significantly benefit from☐remarkable advances in Machine Learning and Artificial Intelligence. _____ 8. Machine Learning and Artificial Intelligence decrease the robot's autonomy and increase reliance on human agents. _____ 9. We look forward to robots improving healthcare, and freeing people to improve themselves. _____

3. Look back in the text and find words that have a similar meaning to:

1. partner _____   6. repairs _____

2. to imitate _____   7. unnecessary _____

3. improved _____   8. obstacle _____

4. forecaster _____   9. out of date _____

5. destruction _____

4. Look back in the text and find words that have an opposite meaning to:

1. natural _____   4. worsen _____

2. dependency _____   5. regress _____

3. current _____   6. decline _____

5. Find English equivalents in the text:

аналізувати навколишнє середовище, віртуальний світ програмного забезпечення, збільшувати автономність робота та зменшувати залежність від людей, без втручання людини, веб-сканери або чат-боти, роботизоване програмне забезпечення, переходити від звичайних механічних машин до партнера із когнітивними функціями, створювати нові можливості для працевлаштування та освіти; програмування, обслуговування та ремонт машин, рівень точності.

6. Match the words or phrases in two columns to form the word-combination from the text:

1.	robots that work	a)	enhanced capabilities
2.	to analyze their environment	b)	without human intervention
3.	help robots mimic	c)	and decrease reliance on human agents
4.	perform tasks	d)	unmatched by human employees
5.	to give their creations	e)	alongside humans
6.	to increase the robot's autonomy and	f)	and self-navigate
7.	to bring a level of efficiency	g)	human behavior
8.	to experience overlap	h)	of increasingly sophisticated robots
9.	to help robots gain	i)	in the face of new technologies
10.	to see more significant numbers	j)	between the two entities
11.	to become obsolete	k)	redundant manual labor tasks
12.	to receive valuable	l)	the fine motor skills
13.	to handle more of the burdensome,	m)	in-house training and upskilling

7. Match the words with the definitions.

1.	strides	a)	a situation that stops a process or activity from progressing
2.	in-house training	b)	freedom from external control or influence;
3.	bottleneck	c)	no longer produced or used; out of date
4.	sophisticated	d)	steps or stages in progress towards an aim
5.	autonomy	e)	proceeding mechanically and repetitiously; being mechanical and repetitious in nature;
6.	to weld	f)	learning for employees led by the company itself
7.	forecast	g)	developed to a high degree of complexity
8.	obsolete	h)	to join together (metal parts) by heating the surfaces to the point of melting with an electric arc, or other means
9.	rote	i)	predict or estimate (a future event or trend)

8. Answer the following questions on the text:

1. How do advances in AI influence the creation of robots? 2. Why do robot designers use Artificial Intelligence? 3. Do robots still need humans to guide them along paths and process flows? 4. What improvements decrease reliance on human agents? 5. What is the main characteristic feature of a software robot? 6. What is the difference between software robots and robotic software? Is there any overlap between these two entities? 7. What advances are enjoying an upwards trajectory thanks to improved technologies? 8. What sophisticated robots can we expect to see in the future? 9. Why will there be a need for skilled technicians? 10. What benefits will the country's economy receive from the use of robots? 11. What robots do we look forward to?

9. Read the magazine article on Artificial Intelligence.

Artificial Intelligence, the Future of Technology
Will **Heuristics** Lead to **Consciousness?**
by Peter Smith

Computers perform complex calculations that no human could complete. Yet, they remain unable to think for themselves. That's something **cognitive scientists** want to change. Their research focuses on two types of thinking: **case based** and **model-based**

reasoning. Case based reasoning compares similar problems. Model based reasoning examines cause and effect. But these different approaches have the same problem. Their **algorithms**, like most rules, aren't always right.

That's where heuristics comes in. With heuristics, computers are avoiding that problem. Instead of following rigid guidelines like regular algorithms, heuristics search for acceptable solutions. As these modified algorithms improve, **machine learning** leaps forward. Advanced computer **agents** and **robots** now find solutions independently. **Pattern recognition** has even made **computer vision** possible. The range of what robots and computers can do grows each day. The invention of a self learning computer may soon be possible.

b) Mark the following statements as True or False
1. Case and model-based reasoning face different complications. _____
2. Heuristics don't have rigid guidelines like regular algorithms. _____
3. Computer vision is improving pattern recognition. _____

c) Match the words (1-6) with the definitions (A-F).

1.	pattern recognition	A	a moving machine that can complete tasks automatically
2.	cognitive scientists	B	a set of rules to solve a problem when no perfect solution or answer is known
3.	consciousness	C	the process of classifying objects by appearance
4.	robot	D	the state of being aware of oneself and one's actions
5.	heuristic	E	a rule or set of rules that provides steps to take in order to solve a problem
6.	algorithm	F	a person who studies how the mind works

d) Write a word that is similar in meaning to the underlined part.

1. Giving machines the ability to see is improving. _____

2. Examining previous experiences to make decisions works best. _____

3. I use examinations of cause and effect relationships to make decisions. _____

4. Peter works in the science that attempts to create thinking robots. _____

5. This <u>computer that reacts to the environment</u> turns the heat on when it's cold. _____

6. The field of creating algorithms that computers can learn from often uses heuristics. _____

10. Translate into English:

1. Ми побачимо перспективи в галузі робототехніки, оскільки штучний інтелект і програмне забезпечення також продовжують розвиватися. 2. У найближчому майбутньому, завдяки прогресу в цих технологіях, роботи продовжуватимуть ставати розумнішими, гнучкішими та енергоефективнішими. 3. Роботи також залишаться головним центром розвитку 'розумних' фабрик, де братимуть на себе більш складні завдання. 4. Роботи будуть виконувати завдання, про які люди не могли й мріяти. 5. Програмні роботи — це комп'ютерні програми, які виконують завдання без втручання людини. 6. Підвищення кваліфікації дає працівникам можливість набути навички, які можна застосовувати до програмування та обслуговування роботів. 7. На відміну від антиутопічних прогнозів, вдосконалені роботи не замінять працівників.

11. Retell the text "The Future of Robotics" using your active vocabulary.

12. Look at Appendix 2, then choose the correct particle and comment on its meaning.

1. He **ran** *in/across/through* his old friend, Tom, in Oxford Street last week. 2. If you **run** *off/through/down* your friend unnecessarily, you risk losing them. 3. We've **run** *down/off/out* of sugar; could you go and buy some? 4. Let's **run** *away/through/after* the first scene again. 5. After a promising start, the company **ran** *through/across/into* trouble. 6. If you'd likw to take a seat, I'll **see** *off/about/into* changing your ticket. 7. I took my parents to the airport and **saw** them *about/over/off*. 8. You clear the table and I'll **see** *into/off/to* the washing up. 9. Make sure you **see** *to/over/about* the propertybefore you agree to buy it. 10. But they can't **see** *into/about/off* the future, can they?

13. Replace the underlined words with a phrasal verb with the same meaning.

1. She <u>chased</u> me to hand me some papers I'd dropped. _____ 2. Mark and my sister are planning to <u>escape from home</u> to get married. _____ 3. Someone <u>has stolen</u> all my jewels. _____ 4. The business <u>experienced</u> financial difficulties almost immediately. _____ 5. Above all, it seems to have <u>no longer any</u> ideas on the economy. _____ 6. Briefly, she <u>revised quickly</u> details of the morning's events. _____ 7. Dad had planned a steak dinner for himself after <u>accompanying</u> Mum <u>to</u> her plane. _____ 8. The hopeful visitors arrived, and either sent in a servant or went personally to hand in a card and ask if they could <u>inspect</u> the house. _____ 9. Mrs Chapman asked for some help with the orders – could you *take care of* it? _____

14. Look at Appendix 4, then choose the correct preposition.

1. I did not want to help my sister again because I felt that she was taking **advantage** *of/for/at* me. 2. Unfortunately, I have no **knowledge** *to/of/for* the incident. 3. This article makes a **comparison** *with/between/for* the two writers. 4. I stupidly made the **mistake** *for/of/in* giving them my phone number. 5. He gave her a **check** *of/for/with* a lot of money. 6. The **reason** *of/to/for* this meeting is to discuss the terms of our contract. 7. The **decrease** *of/in/for* profits is due to the bad market. 8. There is a real **demand** *for/in/of* new products.

GRAMMAR
Gerund

Grammar notes	Examples
A *gerund* is the *-ing* form of a verb used as a noun. The *negative* form is formed by placing *not* before the gerund.	*Smoking* is bad for health. I enjoy *reading* books. The doctor suggested *not drinking* coffee too much.
A *gerund* can be the *subject* of a sentence.	*Reading* is my hobby.
A *gerund* can be the *object* of a sentence.	I enjoy *walking* in the park.
If the *object* is another verb, it ends in *-ing*: The following verbs can have the structure *verb + preposition + gerund*	I **feel like** *staying* home tonight. Have you **succeeded in** *finding* a job yet?

succeed in, insist on, think of, dream of, approve of, decide against, feel like, look forward to. The following verbs can have the structure ***verb*** + *object* + ***preposition*** + ***gerund*** *(object)* *congratulate on, accuse of, suspect of, prevent from, stop from, thank for, excuse for, forgive for.*	I'm **looking forward to** *meeting* her. I'm **thinking of** *buying* a house. I **congratulated** Tom **on** *getting* a new job. I forgot **to thank** them **for** *helping* me. **Excuse** me **for** *being* so late. They **accused** us **of** *telling* lies.
A ***gerund*** is used after the following verbs: *admit appreciate avoid* *consider deny (dis)like* *discuss enjoy finish* *mention mind miss* *postpone put off practise* *quit (give up) suggest understand*	**Avoid** *eating* foods with a lot of fat. Ann **denied** *eating* the cookies. Do you **enjoy** *driving*? I don't **mind** *opening* the window. You should **quit** *smoking*. I can **understand** him *not inviting* Joan. Tom **gave up** *smoking*.
A ***gerund*** is used after prepositions *of, in, at, for, without, about, instead of, in spite of, on*	I'm thinking **of** *changing* my job. Teachers need to be good **at** *listening*. You can only live for a few days **without** *drinking*. He insisted **on** *giving* me a ride to the train station.
A ***gerund*** is used after fixed expressions: *can't help, can't stand, it's no use, (to be) worth, There's no point in, have difficulty, have trouble, a waste of money/time, (be) busy*	We're all **busy** *preparing* for Christmas. We **had** considerable **difficulty** *finding* anywhere to park. He was **having trouble** *hearing* her.
We often use **go** + ***gerund*** to describe activities such as *shopping, fishing, skiing, swimming, camping, running, dancing, etc.*	Let's **go** *swimming* in the sea. I **go** *shopping* every other day. We **went** *fishing* yesterday.

1. Rewrite each sentence so that it begins with an *-ing* form as a subject.

1. It can be very relaxing to collect fossils. _____

2. It can be difficult to give up smoking. _____

3. It isn't a good idea to do an exam without revising. _____

_____

4. It is fun to learn a new sport. _____

5. It takes lots of hard work to learn a foreign language. _____

_____

6. It was very exciting to see my favourite band play live. _____

_____

7. It will never be possible to live on Mars. _____

8. It took long time to write the essay. _____

9. It is so tiring walking up this mountain! _____

10. It is illegal to drive without a licence. _____

11. It is not nice to laugh at other people. _____

12. It is quite difficult to find a parking space in the city centre. _____

_____

13. It was not easy to get a good job. _____

14. It is a great honor to be awarded this generous prize. _____

_____

15. It is unhealthy to drink a lot of coffee. _____

16. It would be great to win the lottery. _____

2. Use gerund as an object instead of the infinitives in brackets.

1. I love (to go) _____ to the movies. 2. I like (to live) _____ by the river. 3. Do you enjoy (to work) _____ in the supermarket? 4. Would you mind (to watch) _____ my thing for me while I go swimming? 5. She can't stand (to be) _____ around him. 6. He admitted (to cheat) _____ on the exam. 7. He always tries to avoid (to do) _____ his homework. 8. He is considering (to move) _____ to Kyiv. 9. He delayed (to pay) _____ his phone bill. 10. He denied (to steal) _____ the money. 11. Please, continue (to tell) _____ me your story. 12. She mentioned (to meet) _____ him for a tea earlier. 13. She practises (to speak) _____ Spanish whenever she gets the chance. 14. They suggested (to stay) _____ at a hostel. 15. I recall (to see) _____ an advertisement for that somewhere. 16. He'll consider (to hear) _____ your side of the story later, if he has time.

3. Open the brackets using a gerund after prepositions and fixed expressions:
1. We ran ten kilometres without (to have a rest) _____. 2. You can put people's lives in danger by (to drive) _____ too fast. 3. I'm fed up with (to ask) _____ you to be quiet. 4. There is no point in (to take) _____ your coat. It's warm outside. 5. She tried to be serious, but she couldn't help (to laugh) _____. 6. Helen has no chance of (to pass) _____ the exam. 7. Instead of (to eat) _____ at home we went to a restaurant. 8. I have no intention of (to

apply) _____ for the job. 9. The station isn't far. It's not worth (to go) _____ by taxi. 10. I think it's a waste of time (to read) _____ newspapers. 11. I had difficulty (to get) _____ a visa. 12. It's no use (to apply) _____ for the job. I know I wouldn't get it. 13. Ann has got a horse. She goes (to ride) _____ regularly. 14. I can't stand (to queue) _____ up. 15. I was so busy (to worry) _____ about Ann that I didn't even think about Tom.

4. Complete each sentence with preposition followed by gerunds.

1. Our neighbours apologized _____ so much noise. 2. It took us a long time, but we finally succeeded _____ the problem. 3. We have decided _____ a new car because we can't really afford it. 4. The weather was extremely bad and this prevented us _____ on a picnic. 5. I've always dreamed _____ in a small house by the sea. 6. I'm sorry I can't come to your party, but thank you very much _____ me. 7. My bag wasn't very heavy, but my brother insisted _____ it for me. 8. There's a fence around the lawn to stop people _____ on the grass. 9. I feel tired. I don't feel _____ any work. 10. Where are you thinking _____ your holiday this year? 11. Tom insisted _____ me to the station. 12. Mario spent all month preparing for the tennis match, but in spite _____for many hours each day, he lost the match to Ivan. 13. He is an environmentalist who believes animals should be protected from hunters. He objects _____ wild animals for sport. 14. I look forward _____ you next time I'm in town. 15. Mom told us that she was tired _____ the dishes every night.

Infinitive

An **infinitive** is *to + base form of the verb* The *negative* form is formed by placing *not* before *to*.	She asked me *to call* after 5 p.m. She **appears** *not to worry* about her weight.
These verbs **can be followed directly by an infinitive** with *to*: **agree**, **(can/can't) afford, aim, appear, arrange, ask, attempt, choose, dare, decide, demand, deserve, expect, fail, have (=must), hope, learn, manage, mean, offer, plan,**	Tom **dared** *to argue* with the police. We've **decided** *to go* for a walk. I'**d love** *to visit* France. He **refused** *to help* us. Henry **demanded** *to speak* to the manager. She doesn't **seem** *to be* in love with him.

pretend, promise, refuse, seem, tend, threaten, want, wish, would like/love /hate/prefer	I **can't afford** *to buy* a new car now.
Some verbs, like the ones below, need an **object** ((pro)noun) **before the infinitive**: **verb + object + infinitive with *to*** **ask, beg, dare, encourage, expect, help, intend, invite, mean, need, order, require, want, wish, would like/love/hate/prefer**	Mary **wants her daughter/her to find** a better job. We **would like you to do** the washing-up sometimes! She **encouraged the horse to jump** the fence.
The **infinitive** is used without *to:* - after *modal/auxiliary verbs*: **will, shall, would, could, can** (but not be able to), **may, might, must** (but not have to), **should** (but not ought to), and **needn't**, (but not need to, which behaves like a normal verb); - after the following structures: **had better,** **would rather/sooner,** **why not,** **why should we/why should we not** - after **verbs of perception** + **object** (action has finished): **feel, hear, notice, see, watch** - after **let's,** let + object - after make + object	I **may** *fly* to Australia this summer. She **will** *cook* a meal for his birthday. I **do**n't *know.* He **can** *run* very fast. You **had better** *clean* up your room. Susan **would rather** *study* for her exam tomorrow. **Why not** *ask* your neighbour for help? **Why should we not** *go* by car? I **heard** *Peter* **sing** a song. They **saw** *him* **climb** up the roof. He **watched** *the thieves* **steal** a car. **Let's go** for a walk through the park. Sandy **let** *her child* **go** out alone. She **made** *Samantha* **clean** the room.
The **infinitive** can **follow adjectives**, such as **easy, hard, impossible, dangerous, safe, expensive, cheap, nice, good, interesting, exciting**	Is **safe** *to drink* this water? The questions in the exam were **impossible** *to answer.* Jill is **interesting** *to talk* to.
The **infinitive** can often **follow adjectives** which **express feelings** or **attitudes** about the action in the infinitive: **happy, glad, sorry, pleased, sad, disappointed, surprised, amazed, astonished, relieved**	Ann was **glad** *to see* me. I was **sorry** *to hear* that your sister is ill. We were **surprised** *to see* Paul at the party. I was **pleased** *to get* a letter from you last week.
The **infinitive** can be used in the structure "**It's nice of somebody to do something**": **Adjectives** used in this way: **kind, clever, sensible, mean, silly, stupid, careless, unfair, considerate**	It was **nice of you** *to drive* me to the airport. I think it's very **unfair of him** *to criticize* me. It was **careless of you** *to make* the same mistakes again and again. It's **kind of Sue to offer** to help me.
The infinitive is used after **the first/the last, the next**, **the only**, **the second**, etc.	I was **the only** one *to arrive* on time. If I have any more news, you'll be **the first** (person) *to know.*
The **infinitive** can also **follow certain nouns**.	It's **time** *to have* a break. She made a **decision** *to lose* weight. He has **permission** *to stay* out late.
The **infinitive** is used to explain the **purpose** of an action.	Tom eats fast food **to save** time.

5. Complete each sentence with a suitable verb.

1. The judge ordered me _____ a fine. 2. I asked John _____ us. 3. There was a lot of traffic, but we managed _____ to the airport in time. 4. They begged us _____. 5. Did you promise _____ the children to the zoo? 6. I expect you _____ on time. 7. We've got a new computer in our office. I haven't learnt _____ it yet. 8. The flight attendant required the passengers _____ their tickets. 9. Sarah agreed _____ late at the office. 10. It was a nice day, so we decided _____ for a walk. 11. I want you _____ happy. 12. I meant _____ some bread, but I forgot. 13. They don't have much money. They can't afford _____ out very often. 14. Henry invited the Johnsons _____ to the party. 15. I'm still looking for a job, but I hope _____ something soon.

6. Underline the right form of the verb:

1. He agreed **a)** *start* **b)** *to start* **c)** *starts* the job as soon as possible. 2. My teachers always expected me **a)** *did* **b)** *to do* **c)** *do* well in exams. 3. Let me **a)** *pay* **b)** *to pay* **c)** *paid* for the meal. You paid last time. 4. The dentist told me **a)** *will be* **b)** *be* **c)** *to be* more careful when I brush my teeth. 5. I asked Monica **a)** *buys* **b)** *buy* **c)** *to buy* some stamps. 6. You can't **a)** *parks* **b)** *to park* **c)** *park* your car outside the hospital. 7. My family is trying **a)** *decided* **b)** *decide* **c)** *to decide* where to go on holiday. 8. I'd like **a)** *went* **b)** *to go* **c)** *go* somewhere different for a change. 9. They refuse **a)** to gone **b)** *to go* **c)** *go* out on trips if it's too hot. 10. Last year we managed **a)** *found* **b)** *to find* **c)** *find* a holiday that suited everyone. 11. We decided **a)** *rent* **b)** *be rent* **c)** *to rent* a house with a swimming pool. 12. A woman from a travel agency helped us **a)** *to choose* **b)** *too choose* **c)** *chooses* a nice house. 13. When we arrived, the people next door invited us **a)** *have* **b)** *to have* **c)** *to had* a drink with them. 14. Everyone hopes **a)** *enjoy* **b)** *to enjoy* **c)** *be enjoyed* themselves on holiday but it isn't always easy. 15. I went to the shops **a)** *buy* **b)** *for to buy* **c)** *to buy* some shoes. 16. He told me he loved me. I didn't know what **a)** *to say* **b)** *say* **c)** *will I say*. 17. They can't help us **a)** *move* **b)** *move to* **c)** *moved* the house. 18. His parents don't allow him **a)** *stay up* **b)** *to stay up* **c)** *stayed up* after ten o'clock. 19. I want **a)** *you be* **b)** *you to be* **c)** *that you are* more careful with your

homework in future. 20. I wasn't allowed **a)** *be gone* **b)** *go* **c)** *to go* out unless they knew where I was going. 21. We chose **a)** *travelled* **b)** *travel* **c)** *to travel* by boat rather than by plane. 22. I would hate **a)** *miss* **b)** *to miss* **c)** *missed* your party. 23. They can't promise **a)** *finish* **b)** *to finish* **c)** *finished* the work today. 24. I would sooner **a)** *to read* **b)** *read* **c)** *reads* a book than watch this film. 25. The mother let her daughter **a)** *to decide* **b)** *decide* **c)** *has decided* on her own.

7. Use a proper noun from the box to complete the sentences:

decision	something	privilege	pity	e-mails	work
mistake	willingness	pleasure	ability	clients	offer

1. The _____ to cooperate with others is as important as managing on our own. 2. Our _____ to close the firm was a difficult one to make. 3. We were surprised at his _____ to take us home. 4. She showed no _____ to help. 5. It's a _____ for them to lose such a good player. 6. It's a _____ for me to be invited to this conference. 7. It would be a _____ for you to hire him. 8. It's a _____ for us to have you here. 9. There is a lot of _____ to do around the farm. 10. I have some _____ to write. 11. She had two more _____ to call that afternoon. 12. Let's get _____ to eat.

8. Complete the sentences with infinitives.

1. I was glad _____ a letter from you. 2. I was relieved _____ that I had passed the exam. 3. Due is lucky _____ alive after the accident. 4. It was very foolish of Tom _____ lies to the police. 5. The soldiers were prepared _____. 6. The captain was the last man _____ the ship. 7. I was astonished _____ that he had left the country. 8. The children are anxious _____ to the circus. 9. It was stupid of him _____ rude. 10. My brother didn't feel like going anywhere. He was content _____ home and _____ a book. 11. It is necessary for everyone _____ the truth. 12. The students are motivated _____ English. 13. It was silly of you _____ the document

without reading it. 14. Sally is afraid _____ home alone. 15. We were sorry _____ the bad news. 16. He was the only one _____ the danger.

9. Change these sentences so that to use an infinitive of purpose:

1. I went to Japan because I wanted to learn Japanese. 2. She made a cake because she wanted to please her friend. 3. They study a lot because they want to get good marks. 4. Amanda is going to the party because she wants to meet new people. 5. The children went to the park because they wanted to play football. 6. Jorge studied German because he wanted to get a new job. 7. We went to France because we wanted to eat lots of nice food. 8. She got a new computer because she wanted to write a book. 9. He has been running because he wants to lose weight. 10. We must study every day because we want to improve our English. 11. I exercise every day because I want to stay healthy. 12. He's saving money because he wants to buy a flat. 13. I drank coffee because I didn't want to fall asleep. 14. He got up very quietly because he didn't want to wake the children. 15. I went to the mechanic because I wanted him to fix my car. 16. I called my uncle because I needed to find out what time he would arrive. 17. I have been working extra hours because I need to earn more money. 18. I usually go to the supermarket so I can buy everything I need in one place. 19. I started running a course for helping new mothers look after their babies. 20. I'm learning another language so I have a better chance of promotion at work.

10. Put the verbs in brackets into the *infinitive* or *-ing* form:

1. Whenever we met, Ann avoided (look) _____ at me. 2. May I change the TV channel, or do you want (watch) _____ more of this program? 3. Joan is considering (change) _____ her major from pre-med studies to psychology. 4. Tom thanked us for (invite) _____ them to dinner and said that they wanted (have) _____ us for dinner next week. 5. If you delay (pay) _____ your bills, you will only incur more and more interest charges. 6. My lawyer advised me not (say) _____ anything further about the accident. 7. You should plan (arrive) _____ at the stadium early or you won't be able

to get good seats. 8. My wife asked me (pick) _____ up some eggs at the supermarket on my way home from work. 9. Nobody has offered (buy) _____ the house next door, so I think they're going (lower) _____ the price. 10. Would you mind (peel) _____ that orange for me? 11. Stop (nag) _____! I'll get everything finished before I go to bed. 12. Drivers were warned (not park) _____ in the area. 13. The student with the highest average deserves (get) _____ an "A". 14. The doctor was forced (operate) _____ immediately to save the patient's life. 15. Tom is interested in (take) _____ an art class. 16. I was furious. I threatened never (speak) _____ to him again. 17. My parents appreciated (receive) _____ the thank-you note you sent them. 18. When I was in the army, I had to swear (obey) _____ my senior officers' orders. 19. The groom anticipated (enjoy) _____ the wedding ceremony. 20. John failed (pass) _____ the firefighter's examination and was quite upset.

Some verbs can be followed by either an infinitive or a gerund, sometimes with no difference in meaning, and sometimes with a difference in meaning.	
The following verbs may be followed by *either* an *infinitive* or a *gerund* with little or no difference in meaning: **begin**, **start**, **continue**, **like**, **love**, **prefer**, **hate**, **can't stand**, **can't bear**.	It *began to snow*. / It *began snowing*. I *started to work*. / I *started working*.
If the main verb is progressive, an infinitive (not a gerund) is usually used.	It *was beginning to rain*.
The verbs **remember**, **forget**, **regret**, **try** may be followed by either an infinitive or a gerund but the meaning is different.	
Remember/Forget + *infinitive* = remember/forget to perform responsibility, duty, or task.	Tom always *remembers/forgets to lock* the door.
Remember/Forget + *gerund* = remember (recall)/forget something that happened in the past.	I *remember/never forget seeing* the Alps for the first time.
Forget followed by a *gerund* usually occurs in a negative sentence or in questions:	*Don't forget doing* your homework tonight! Have you *forgotten promising* me that you would be never late again?
Regret + *infinitive* = regret to say, to inform someone of some bad news.	I *regret to tell* you that you failed the test.
Regret + *gerund* = regret something that happened in the past.	I *regret lending* her money. She never paid me back.

Try + *infinitive* = make an effort to do	I'm **trying to learn** English.
Try + *gerund* = experiment with a new or different approach to see if it works.	The room was hot. I **tried opening** the windows, but that didn't help. So I **tried turning** on the fan.
Notice the patterns with **prefer**: **Prefer** + *gerund* **Prefer** + *infinitive*:	 I **prefer staying** home **to going** to the concert. I'd **prefer to stay** home (rather) **than** (**to**) **go** to the concert.
Stop + *infinitive* = indicates that someone stops doing something in order to do something else **Stop** + *gerund* = indicates that an action or event is no longer continuing:	He **stopped to smoke**. On the way to Edinburgh, we **stopped to look** at an old castle. It's **stopped raining**. Let's go for a walk.

11. Put the verbs in brackets into the *infinitive* or *-ing* form:

1.Don't forget (call)_____ home as soon as you arrive at your destination. 2. I can't recall (see) _____ that old movie, but maybe I did many years ago. 3. I remember (go) _____ to France when I was three. 4. I'll never *forget* (meet) _____ the President. 5. We regret (say) _____ that we are unable to help you. 6. I'd prefer (go) _____ skiing this year rather than (go) _____ on a beach holiday. 7. I still remember (buy) _____ my first bicycle. 8. I don't regret (change) _____ my job. 9. Don't forget (write) _____ to Aunt Stacie. 10. I regret (leave) _____ school last year. 11. My father says I've got to stop (see) _____ you. 12. We regret (announce) _____ that the 9.20 flight has been cancelled. 13. Tom tried (study) _____ but he was very tired. 14. I regret (buy) _____ this dress. It doesn't look nice on me. 15. I don't remember (stay) _____ in this hotel before. 16. The television's not working. Try (plug) _____ it in.17. Before you decide what to do, stop (think) _____ for a minute. 18. I prefer (listen) _____ to music to (watch) _____ TV.

12. Put the verbs in brackets into the *infinitive* or *-ing* form:

1. David gave up (smoke) _____ two years ago and now he feels much better. 2. A stranger stopped (smoke) _____ on the corner of the street. 3. The actors started (play) _____ at the moment we went into the theatre. Luckily, we were not late. 4. "I don't want (play) _____ the piano right now", protested

the girl. 5. I had some problems with the translation and my brother offered (help) _____ me. 6. I enjoy (help) _____ my friends. Friendship means (help) _____ each other. 7. «Romeo and Juliet» is a very interesting and romantic film. It is worth (see) _____. 8. The tourists from Great Britain came to Kyiv (see) _____ its wonderful places of interest. 9. My mother promised (cook) _____ a lot of tasty things on my birthday. 10. She likes (cook) _____ for our family. She is good at it. 11. My uncle is fond of (travel) _____. He has been to ten countries! 12. I'd like (travel) _____ all over the world when I grow up. 13. – When did Mr. Busy learn (repair) _____cars? – When he was fourteen. 14. Nick can't stand (repair) _____ his old bicycle every month. 15. I'd like (eat) _____ five cakes, I'm so hungry. 16. My little brother denied (eat) _____ my orange. 17. I hope (visit) _____ as many foreign countries as possible. 18. I like the idea of (visit) _____ the History Museum. 19. Pete finished (do) _____ his homework an hour ago. 20. Clever students want (do) _____ difficult exercises to improve their English. 21. Why don't you stop (watch) _____ TV? I don't think it's harmless. 22. Please try (come) _____ a little bit earlier next time. 23. I don't remember (see) _____ Tom. 24. I've forgotten (buy) _____ cheese. Let's go without it. 25. She regrets (tell) _____ you that lie about John. 26. They stopped (discuss) _____ where to go now. 27. If you want to have a lot of money, try (rob) _____ a bank. 28. The boys went on (look for) _____ the money they'd lost. 29. After describing the situation in general, he went on (talk) _____ about details. 30. She regrets (say) _____ she won't come to you. 31. Did you remember (say) _____ good-bye to everybody?

13. Put the verbs in brackets into the *infinitive* or *-ing* form:

Paul and Simon decided (go) _____ on an expedition in the mountains. They considered (tour) _____ Scotland, but then decided to go to Wales instead. Although Paul is accustomed to (walk) _____ in the hills and mountains, Simon had never been before. He normally objected to (do) _____ anything dangerous.,

but he agreed (take) _____ part this time. They remembered (take) _____ a lot of equipment with them to avoid (get) _____ into trouble but, unfortunately, during their trip there was a terrible storm. On their journey a professional mountaineer spotted them and they were made (stop) _____ their expedition temporarily. They agreed that it was no use (try) _____ to continue in such bad weather conditions so they ended up (set up) _____ camp in the mountains. Eventually the storm stopped and although they were cold, wet and starving, they couldn't resist (finish) _____ their climb. They thought it would make a good story to tell their friends.

MODULE 4.

SECURITY THREATS

Text 1. INTERNAL AND EXTERNAL SECURITY THREATS

Basic Vocabulary

threat	небезпека	to pose danger	становити небезпеку
incident	випадок, подія	to impersonate	персоніфікувати
defrauding	введення в оману, обман	to overcome	побороти, подолати, перемогти
to endanger	наражати на небезпеку, ставити під загрозу	credential	посвідчення особи
		contractor	підрядник
contributor	вкладник	fraud	обман, шахрайство
to outsource	передавати в аутсорсинг	awareness	обізнаність, інформованість
destruction	зруйнування, знищення		

The word 'threat' in information security means anyone or anything that poses danger to the information, the computing resources, users, or data. The threat can be from 'insiders' who are within the organization, or from 'outsiders' who are outside the organization. Studies show that 80% of security incidents are coming from insiders.

Security threats can be categorized in many ways. One of the important ways they are categorized is on the basis of the "origin of threat," namely external threats and internal threats.

External threats originate from outside the organization, primarily from the environment in which the organization operates. These threats may be primarily physical threats, socio-economic threats specific to the country like a country's current social and economic situation, network security threats, communication threats, human threats like threats from hackers, software threats, and legal threats. Social engineering threats like using social engineering sites to gather data and impersonate people for the purpose of defrauding them and obtaining their credentials for unauthorized access is increasing. Theft of personal identifiable information, confidential strategies, and intellectual properties of the organization are other important threats. Some of these physical threats or legal threats may endanger an entire organization completely. Comparatively, other threats may affect an organization partially or for a limited period of time and may be overcome

relatively easily. Cybercrimes are exposing the organizations to legal risks too.

Picture 1. External threats

Internal threats originate from within the organization. The primary contributors to internal threats are employees, contractors, or suppliers to whom work is outsourced. The major threats are frauds, misuse of information, and/or destruction of information. Many internal threats primarily originate for the following reasons:

- Weak Security Policies
- Weak Security Administration
- Lack of user security awareness.

Text 2. PILLARS OF SECURITY

Basic Vocabulary

prone	схильний	to deter	зупиняти
involvement	причетність	to detect	помічати, виявляти
vigilance	пильність, насточеність	relevant	доречний, що стосується справи
requisite assurance	необхідна гарантія		

Security is a continuous process. It involves people, policies and processes, and technology. These three categories can be considered the pillars of information security.
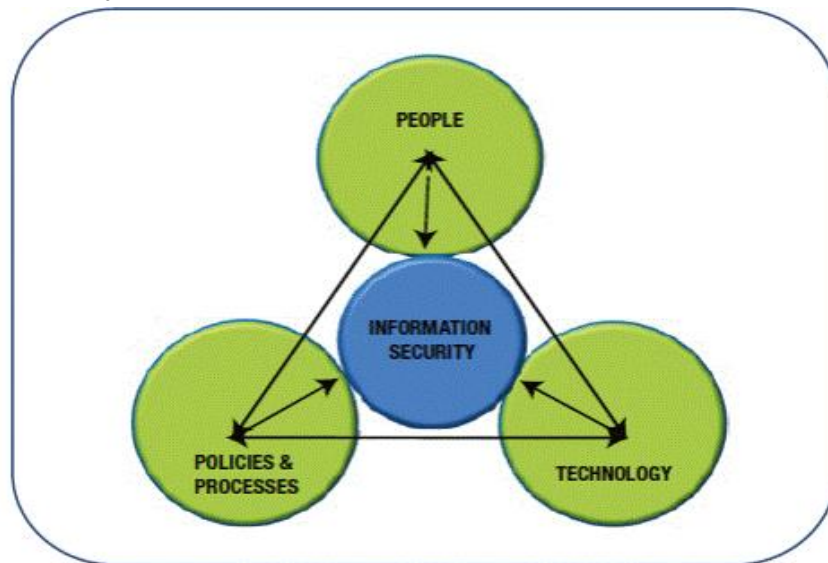
Picture 3. The People, Processes, and Technology

triad for information security

People are the strongest pillars of the information security. But, they may sometimes tend to be the weakest pillars because of the lack of awareness or bad motives. They are easily prone to social engineering attacks or other malicious attacks. Hence, for strong information security their awareness, vigilance, and positive involvement must be increased and ensured.

Every organization creates its structure from a functional and administrative point of view. This is very important from the perspective of the efficiency and effectiveness of work, which allows an organization to grow. However, with the widespread use of computers, the Internet, reliable connectivity, new technologies, and awareness of these new technologies among children to adults, it has become increasingly important to assign roles and responsibilities from the perspective of information security. Effective implementation of information security provides the customers, the management of the organization (including the shareholders), the employees of the organization, and all other related stakeholders the requisite assurance about an organization.

With every passing day, organizations are acquiring more information processing facilities, off the shelf software, and customized software, and we know that our dependency on IT is only going to increase significantly in the coming years. Hence, it is necessary that we are proactively organized to plan and implement information security to protect ourselves, our customers, our partners, our suppliers, and other relevant stakeholders. We also need to organize ourselves to avoid, deter, prevent, detect, investigate, and overcome the issues related to information security or information security breaches.

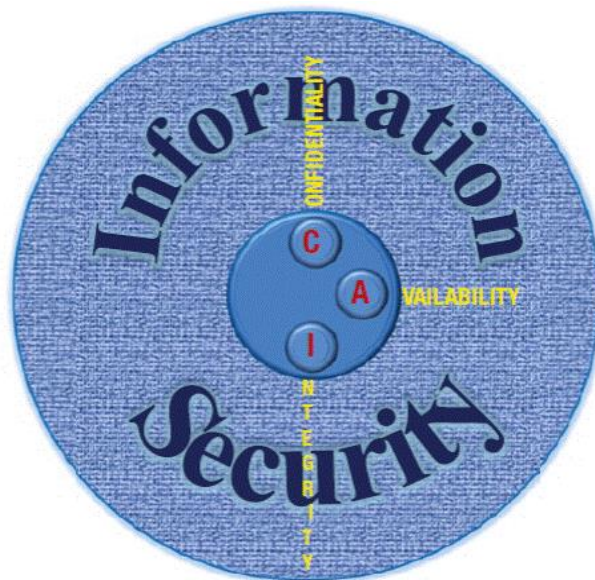## Text 3. PRINCIPLES OF INFORMATION SECURITY
Basic Vocabulary

to supplement	доповнювати, додавати	to ensure	забезпечувати, гарантувати
provision	забезпечення	disruption	підрив; зрив; крах
sustainment	підтримка	to trigger	ініціювати, викликати
to distort	спотворювати, перекручувати	elimination	усунення, знищення, ліквідація
hacking	хакерство		

The fundamental principles of information security are **confidentiality, integrity,** and **availability.**

Integrity means the capability of data to keep the original form and structure during storing and after repeated transfers. Only the owner or user with legal access to the data has the right to edit, delete or supplement the information.

Confidentiality reveals the need to restrict access to information resources for a certain circle of people. During actions and operations, information is only accessible to users who are included in the information systems and have been successfully authenticated.

Information today is stored in systems, databases, storage units, or, most recently, on the Cloud. In today's fast-paced world where opportunities can be lost fast and the speed of decision making is important, the **availability** of crucial information to authorized users of resources at all times has become necessary.

Picture 2. Principles of Information security.

Provision and sustainment of information security involves a set of various measures to prevent, monitor and eliminate unauthorized third-party access. Information security measures are also aimed at protection from damaging, distorting, blocking or copying information. All tasks should be addressed simultaneously, only then complete and reliable protection is ensured.

Main questions about the information protection method are especially acute when hacking or theft with distortion of information lead to severe consequences or financial damages.

Types of information security threats

Information threat is a potentially possible influence or impact on an automated system with the subsequent damage to someone's needs.

Information security threats are not manifested independently but through possible contact with the gaps in the protection system, or factors of vulnerability. The threat leads to the disruption in systems on a specific carrier.

The following factors cause main vulnerabilities: shortcomings of software or hardware; different characteristics of the structure of automated systems in the information flow; inadequate operational processes of the system; inaccuracy of information exchange protocols and interface; difficult operating conditions and conditions in which the information is located.

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Most often the sources of threats are triggered in order to obtain illegal benefits after damaging information. However, accidental effect of threats due to insufficient protection and mass attack of a threatening factor is also possible.

Vulnerabilities can be random, objective, and subjective.

Random vulnerabilities vary depending on unforeseen circumstances and features of the information environment. They are almost impossible to predict in the information space, but you have to be prepared to rapidly eliminate them. Engineering and technical investigation or a response attack will help to mitigate such problems as system failures caused by malfunctions of technical means at different levels of processing and storage of information; malfunctions and obsolete elements (demagnetization of data carriers); malfunctions of different software (antiviruses, application and service programs); power transmission failures.

Objective vulnerabilities depend on the technical design of the equipment which is installed on the object requiring protection, as well as its characteristics. It is impossible to escape all these factors, but their partial elimination can be achieved through engineering techniques.

In most cases, **subjective vulnerabilities** result from inadequate employee actions at the level of storage and protection system development. Eliminating such factors is possible using hardware and software.

(https://ebrary.net/26640/computer_science/security_threats)

EXERCISES

I. Read the articles. Work out the meaning of the highlighted words. Then match them with their definitions *a-r.*

1. off the shelf	a) to prove or show that something is real and not false or copied
2. delete	b) happening without being planned or intended
3. authenticate	c) not designed or made to order but taken from existing stock or supplies
4. monitor	d) a result or effect of something
5. consequence	e) to remove information stored in a computer
6. accidental	f) any potential event or action (deliberate or accidental) that represents a danger to the security of the business

7. threat	g) to regularly check something or watch someone in order to find out what is happening
8. insider	h) to put people or things into groups according to their qualities
9. outsider	i) coming from outside a place or organization
10. categorize	j) someone who uses a computer to connect to other people's computers secretly and often illegally, so that they can find or change information
11. external	k) someone within an organization or group who knows about all the things happening in it
12. hacker	l) someone who does not belong to a particular group or organization
13. credentials	m) able to be recognized, or easy to recognize
14. identifiable	n) to put someone or something into a situation where they might be harmed or damaged
15. endanger	o) crime committed using the internet
16. deter	p) to discover or determine the existence, presence, or fact
17. detect	q) documents that prove who you are or that show your qualifications or status
18. cybercrime	r) discourage (someone) from doing something

2. Do the following statements agree with the information given in the texts? Write T (true), F (false) next to the sentences 1-5.

1. Internal threats originate from the environment in which the organization operates. _____ 2. Objective vulnerabilities depend on both the technical design of the equipment installed on the object requiring protection and its characteristics. _____ 3. It is possible to predict random vulnerabilities in the information space. _____ 4. Accidental effect of threats due to insufficient protection and mass attack of a threatening factor is impossible. _____ 5. Hacking or theft with distortion of information lead to severe consequences or financial damages. _____

3. Read the following reasons for internal threats and list them under the headings:

Weak Security Policies: **1,** _____

Weak Security Administration: _____

Lack of user security awareness: _____

1. Unclassified or improperly classified information, leading to the unintended sharing of confidential information with others, particularly outsiders.

2. Identity theft and unauthorized access due to weak password complexity.

3. Weak administrative passwords being misused to steal data or compromise the systems.

4. Falling prey to social engineering attacks.

5. Non-restricted administrative access on the local machines and/or network, leading to misuse of the system or infection of the systems.

6. Undefined or inappropriate access to customer resources or contractors/suppliers, leading to fraud, misuse of information, or theft.

7. Downloading unwanted software, applications, or images or utilities/tools leading to malware, viruses, worms, or Trojan attacks.

8. Accidentally deleting data permanently.

9. Improper use of utilities like messengers or Skype and unauthorized divulgence of information to others.

10. Inappropriately defined or implemented authentication or authorization, leading to unauthorized or inappropriate access.

11. Unrestricted website surfing, leading to infections of viruses, phishing, or other malware.

12. Inadequate segregation of duties, leading to fraud or misuse.

4. Form the opposites to the following words. Use dictionary if necessary.

appropriately _____   defined _____

authorized _____   to use _____

authenticated _____   restricted _____

correct _____   proper _____

adequate _____   foreseen _____

sufficient _____   possible _____

5. Give synonyms for the following words. Use dictionary if necessary.

incident, categorize, property, purpose, important, error, involve, provide, crucial, threat, damage, benefits

6. Match the words or phrases in two columns to form the word combinations from the text. Use them in the situations from the text.

1. to restrict access to information resources	a) and responsibilities
2. a potentially possible impact	b) and effectiveness of work
3. from a functional and	c) for a certain circle of people
4. to assign roles	d) on an automated system
5. from the perspective of the efficiency	e) bad motives
6. to keep the original	f) administrative point of view
7. the lack of awareness or	g) on unforeseen circumstances
8. to be installed on	h) form and structure
9. to vary depending	i) specific to the country
10. provision and sustainment	j) partially or for a limited period of time
11. different characteristics	k) the object requiring protection
12. to affect an organization	l) to the information
13. to use social engineering sites	m) of the structure of automated systems
14. socio-economic threats	n) of information security
15. to pose danger	o) to impersonate people

7. Translate into English using your active vocabulary.

1. Особа, яка отримала несанкціонований доступ до інформації або зламала систему захисту, може завдати шкоди. Збиток може також статися через зовнішні фактори, наприклад, технологічні та природні катастрофи. У першому випадку відповідальність покладається на суб'єкта, визначаються складові злочину, а правопорушники караються в судовому порядку.

2. Щоб дізнатися точну інформацію про рівень захисту, вам потрібно залучити аналітичний відділ. Вони оцінять усі вразливі місця та складуть

інформаційну карту за п'ятибальною шкалою оцінок (grading scale). Значення 1 відповідає мінімальному впливу на захист, тоді як 5 відповідає максимальному впливу та, відповідно, небезпеці.

3. Безпека – це безперервний процес. У ньому беруть участь люди, політика та процеси та технології. Люди - це найсильніші стовпи інформаційної безпеки. Але іноді вони можуть бути найслабшими, оскільки вони легко схильні до атак соціальної інженерії чи інших зловмисних атак. Отже, для сильної інформаційної безпеки їх обізнаність та пильність повинні бути підвищені та забезпечені.

8. Speak on the following topics:

1. External and internal threats.

2. Different reasons for internal threats.

3. Security as a continuous process.

4. Main principles of information security.

9. Look at Appendix 2, then choose the correct particle and comment on its meaning.

1. Can you **turn** *of/down/on* the radio? It's too loud. 2. This factory has been **turning** *up/into/out* TV sets for 25 years. 3. In a crisis I always **turn** *away/ on/to* my father for help. 4. We were surprised when John **turned** *down/up/in* at Ann's wedding. 5. They **turned** the attic *on/to into* a playroom. 6. **Turn** *up/over/on* the page and start reading silently. 7. Don't worry. I will **stand** *out/by/for* you if you get into trouble. 8. What does that red star you are wearing **stand** *by/up for/for*? 9. You'll really **stand** *up to/up/out* in a crowd if you wear this yellow suit. 10.Timmy is too scared to **stand** *for/ up/up to* his boss. 11. He knew he **was** *in for/about tp/through with* boxing when he began having headaches. 12. Clare has **been** *up to/after/off* the manager's position for some time. 13. Do you really think Ben **is** *with/in for/up to* running the company by himself?

10. Fill in the correct particle.

1. **Turning** refugees _____ would be an inhumane action. 2. Richard had **turned** _____ on Christmas Eve with Tony. 3. I thanked him for the offer but **turned** it _____. 4. When he was starting out as an artist he **turned** _____ his friends for loans. 5. He has been given until noon today to **turn** himself _____ to the authorities. 6. Liz picked up the blue envelope and **turned** it _____ curiously. 7. I had no idea that it would **turn** _____ like this. 8. British and American warships are **standing** _____ to evacuate their citizens if necessary. 9. They **stood** _____ what they believed to be right. 10. AIDS **stands** _____ Acquired Immune Deficiency Syndrome. 11. Women are now aware of their rights and are prepared to **stand** _____ their employers. 12. Every tree, wall and fence **stood** _____ against dazzling white fields. 13. Argentina has lifted all restrictions on trade and visas **are** _____ be abolished. 14. He's **been** _____ meningitis. 15. One of his new comedies is to **be** _____ TV soon.

11. Look at Appendix 4, then choose the correct preposition.

1. We have seen a **fall** *for/in/of* price recently. 2. The **cause** *for/of/with* his problem is his family. 3. Did you do any **damage** *for/with/to* the house? 4. I think your **attitude** *for/of/to* your sister is very bad indeed. 5. The **difference** *for/between/with* the two is very slight. 6. He took a **photograph** *for/with/of* his girl. 7. Do you have a good **relationship** *of/for/with* most of your relatives? 8 Did you send Alice an **invitation** *to/for/in* the party? 9. The **connection** *of/between/to* the two victims was minimal.

GRAMMAR

LOGICAL CONNECTORS USED TO EXPRESS CONTRADICTIONS

Linking words (or conjunctions) are words or phrases that connect ideas or sentences within a text. Using linking words makes your text more readable and allows the reader to comprehend the opinion or information you are representing. **Contrast connectors** are used to present a contradiction between ideas.

Connector	Meaning	Example

But	adds statement which is different from what you have said before. It is used to connect contrasting ideas. You cannot use **but** at the beginning of a sentence (in written English).	I know the answer to the problem, **but** I do not know why it is.
However	indicates a contrast or contradiction and is more formal than *but*. You can use it at the beginning of a sentence	I want to come to your party tonight. **However**, I have to visit my parents. (In case you use **but**, the sentence should be: "I want to come to your party tonight but I have to visit my parents.")
Nevertheless	is used to say something which contrasts with what has just been said.	Milos said his English is terrible. **Nevertheless**, he got an 8.0 on his IELTS Writing test.

Note! We can use either *however* or *nevertheless* to indicate the second point we wish to make contrasts with the first point. The difference is that *nevertheless* is a bit more formal and emphatic than *however*.

Nonetheless	links two contradictory thoughts	She did not like teaching, but she became a teacher **nonetheless**.
Even so	indicates something that is unusual or extreme	This hypothesis is true, but **even so**, further research is required.
At the same time	expresses two things which happen together	Some people can watch TV and play PlayStation games **at the same time.**
Conversely	expresses an idea that is different from or opposite to the other idea mentioned before	I thought she would not come to the party; **conversely**, she came to the party with her boyfriend.
Yet	adds something that is surprising after the first sentence which is mentioned before	It is a long-term business, **yet** it is more fun than other jobs.
Though	shows that two ideas are opposing one another	**Though** the meal was spicy, it was delicious.
Although	introduces a new statement that makes main statement surprising.	**Although** she loves her job, she decided to quit her job.
Even though	is used as a stronger way to say "**though**" or "**although**"	**Even though** I met all the criteria needed for the job, I was not hired.
In contrast	compares two things or people and says that the second one is very different from the first one	This child is short and fat. **In contrast**, her sister is tall and thin.
Whereas	compares two things which have significant differences from each other	Chicken meat is white, **whereas** cow meat is red.

On the other hand	to say something that is different from the first thing mentioned	I like playing football. ***On the other hand***, my brother likes playing basketball.
Alternatively	proposes another possibility.	You can play football. ***Alternatively***, you can go to the cinema with me.
Instead	means in place of something or someone else	Would you like to go to another place ***instead*** of cinema?
While	means throughout the time	I spilled the juice ***while*** I was pouring it.

1. Fill in the right contrast connector*:*

1. We have failed many times; _____, we still keep trying. 2. Your thoughts are very fanciful, but _____, they are worth to imagine. 3. _____, I work part-time at a firm. 4. That woman was short and overweight, _____ somehow, she was attractive. 5. We had no money but, _____, we were very happy. 6. _____ to his big brother, he speaks English very well. 7. I think we can go far away for vacation, or _____, we can go where we went last year. 8. _____ of complaining, you should try to be a constructivist. 9. That man has much money. _____, he isn't happy at all. 10. My father will go to the work, _____ he has two painful operations. 11. _____ John was in London, he went to see July. 12. _____ he works hard, he is not successful in the course. 13. The place was so beautiful; _____, we did not want to spend our holiday in here. 14. His family made a lot of effort to make their son's lessons better; _____, he never made any effort. 15. I knew a lot about the subject already, _____ his presentation was interesting _____. 16. The food was unsalted, but it was _____ delicious. 17. _____ he loves his teacher very much, he did not get used to his friends. 18. Her hair has a natural wave, _____ her sister's hair just straight. 19. They lost the game; _____, they continued to play. 20. I'm not sure what you are planning to do _____ I will always support you.

2. Choose the right option:

1. I use water when making pasta _____ my mom uses eggs.

        a) however   b) instead   c) whereas

2. He is very handsome _____ he is a very rude person.

        a) even so   b) but   c) in contrast

3. Valerie was excited to attend summer camp; _____, she still had to finish packing.

        a) even so   b) however   c) yet

4. I'd like to eat out, but _____ I should be trying to save money.

        a) in contrast   b) conversely   c) on the other hand

5. There are a lot of spelling mistakes; _____, it's quite a good essay.

        a) even so   b) yet   c) however

6. John couldn't attend the conference so Mary went _____.

        a) conversely   b) instead   c) nevertheless

7. _____, young people are not so interested in fixed political programmes.

        a) conversely   b) however   c) though

8. They would criticize me, or worse _____, pay me no attention.

        a) yet   b) even though   c) in contrast

9. _____, public sector workers enjoyed a rise in basic pay of 3.4 per cent.

        a) on the contrary   b) in contrast   c) otherwise

10. _____ I work by myself, there are other people I can interact with.

        a) nevertheless   b) on the contrary c) even though

11. _____, the show is beautifully made and edited and as totally watchable as ever.

        a) nevertheless   b) otherwise   c) alternatively

12. It is not an idea around which the community can unite. _____, I see it as one that will divide us.

        a) nevertheless   b) in contrast   c) on the contrary

13. You can't think about it _____ it holds you back.

        a) nevertheless   b) otherwise   c) alternatively

14. We could go to the Indian restaurant, or _____, we could try that new Italian place.

        a) nevertheless   b) otherwise   c) alternatively

3. Translate into English using the right connector.

1. Мало хто з гітаристів вміє співати так добре, як грає; Однак Едді є винятком.

_____

2. Стара система мала недоліки, але все ж вона була кращою ніж нова.

_____

3. Край був надзвичайно гарний. Тим не менш, Джерард не міг уявити, що проведе там решту свого життя.

_____

_____

4. Мені страшенно боліла голова, але не зважаючи на це я все одно пішла на концерт.

_____

_____

5. Скандинавські круїзи дуже популярні влітку; навпаки, Карибський басейн найбільш популярний взимку.

_____

_____

6. Ми з нею приїхали одночасно зовсім випадково.

_____

7. Вчора було холодно, а сьогодні навпаки дуже спекотно.

_____

8. Давайте підемо гуляти замість того, щоб грати у відеоігри.

_____

9. Подорожуючи, вона сумувала за домашнім затишком.

_____

10. У той час як знання можна отримати з книжок, навички можна отримати лише на практиці.

_____

_____

RELATIVE CLAUSES

There are two types of relative clauses, defining and non-defining. In the grammar chart below, you can see the main differences between them.

DEFINING VS NON-DEFINING RELATIVE CLAUSES
test-english.com

DEFINING

NO COMMAS

NECESSARY INFORMATION. Essential to distinguish which thing or person we are talking about.

I called my brother who lives in Ontario.

(=I have more than one brother and I called the one that lives in Ontario)

WE CAN USE *THAT*

We CAN use THAT instead of WHO/WHICH.

That's the mug WHICH/THAT I bought in Paris.
I didn't know the man WHO/THAT was there.

RELATIVE PRONOUNS CAN BE OMITTED

We CAN omit WHO/WHICH/THAT when they are followed by SUBJECT + VERB
Do you like the song (WHICH/THAT) I wrote?
That's the man (WHO/THAT) I like.

NON-DEFINING

BETWEEN COMMAS

EXTRA INFORMATION. Not necessary to distinguish which thing or person we are talking about.

My brother, who lives in Ontario, is older.

(=I have only one brother and I'm just mentioning that he lives in Ontario)

WE CANNOT USE *THAT*

We CANNOT use THAT instead of WHO/WHICH.

These bikes, WHICH cost a fortune, are made in Japan. (NOT ~~that cost a furtune~~)

RELATIVE PRONOUNS CANNOT BE OMITTED

We CANNOT omit WHO/WHICH

They introduced me to John, who I liked immediately. (NOT ~~John, I liked immediately~~)

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We usually use *that*, not *which*, after **all**, **everything**, **nothing**, **the only**… and **superlatives**. We do **not** use *What* in these cases.

> For example: I've told you ***all that*** I know.
>> ***The only thing that*** matters to me is your happiness.

4. Say whether the relative clauses are *essential* (necessary) or *not essential* (extra) to the meaning of the main sentence.

1. Paul, who is a famous actor, went to school with my brother. _____

2. The pen which I left on that table has disappeared. _____ 3. The man who is repairing our car is very friendly. _____ 4. David, who grew up in Canada, speaks fluent French. 5. The man whose car was stolen has gone to the police station. _____ 6. Rye, where my grandmother lives, is near the sea. _____ 7. Roger, whose car has broken down, is late for work. _____ 8. The Acropolis, which attracts many tourists, is in Athens. _____ 9. The teacher who teaches maths is popular in the school. _____ 10. Here is the report that he brought us yesterday. _____ 11. Dsavid, who works really hard, got a promotion. _____ 12. The food that I like best of all is spaghetti. _____ 13. Fred, whose mother lives in Edinburgh, has gone to Scotland. _____ 14. The building which was next to the school fell down. _____ 15. Jane? Whose brother is also a doctor, works at the hospital.

5. Fill in the *relative pronoun*. Put *commas* where necessary. Say whether the relative clauses are *essential* (necessary) or *not essential* (extra) to the meaning of the main sentence.

1. Brian _____ is still at school is the captain of our local team. _____ 2. The restaurant _____ we celebrated my birthday has closed. _____ 3. Mrs. Jones is the woman _____ is in charge of this company. _____ 4. London _____ is the capital of England attracts many foreign visitors. _____ 5. The book _____ I'm reading is about China. _____ 6. Mr. Smith _____ runs our company is in hospital. _____ 7. Neville _____ family are rich has just bought a Mercedes. _____ 8. The girl _____ I met on the bus looks just like my sister. _____ 9. Peter Smith _____ had an accident is in hospital. _____ 10. The apples _____ grow on these trees are delicious. _____ 11. This apple pie _____ I made yesterdat tastes great. _____ 12. This jumper _____I bought in Ireland is pure wool. _____ 13. The man _____ wife is seriously ill is very sad. _____ 14. This parrot _____

comes from Africa is a clever mimic. _____ 15. The priest _____ married us has gone to work in Africa. _____

6. Join the sentences using *who*, *when*, *where*, *which* or *whose*.

1. She's the girl. She works in the library. _____

2. Corfu is an island. It has many beautiful beaches. _____

3. Here's the alarm clock. I bought it yesterday. _____

4. Jim is a man. He met the Queen last year. _____

5. That's the beach. I used to hgo swimming there. _____

6. Steven lives in Bradford. It is a city in the north of England. _____

7. July was the month. My sister was born then. _____

8. I've spoken to John. His house was burgled last Monday. _____

9. That is the radio. I won it in the competition. _____

10. There is the hospital. I was born there. _____

11. This is my new coat. I bought it in yesterday's sale. _____

12. This is the factory. My father used to work here. _____

13. America is the country. The best hamburgers are made there. _____

14. I have ten cousins. None of them are girls. _____

15. The supermarket has 30 employees. Most of them work part-time. _____

7. Complete the sentences with relative pronouns from the box.

THAT – WHEN – WHERE – WHICH – WHO – WHOM – WHOSE – WHY

1. Is he the person _____ lives with you? 2. The man, _____ wife is a famous violinist, can play the piano himself. 3. The Johnson family, _____ son moved to the U.K., lives in Canada. 4. Can you tell me about the policeman, _____ you spoke with this morning? 5. The bad weather is the reason _____ I didn't come to practice yesterday. 6. Food _____ is imported from other countries is often more expensive than local food. 7. I know a great restaurant _____ we can get good food. 8. The policeman talked to

the children _____ mothers were waiting outside. 9. I helped the old lady _____ books fell on the floor. 10. Do you know _____ there are no elephants in South America? 11. My parents remember the time _____ there was no internet. 12. The cake _____ my mother made tasted really great. 13. The fireman rescued the girl _____ was trapped on the third floor. 14. The woman _____ dog barks all the time lives together with her daughter. 15. I often visit my grandparents, _____ live a few blocks down the street. 16. Avatar, _____ we saw a few days ago, won several Oscars. 17. My dad knows a man _____ brother works in the White House. 18. I visited one of my uncles, _____ lives on the other side of town. 19. The office is a place _____ I can do my work without being disturbed. 20. Give this medicine to the parents _____ child is ill. 21. Most of the people _____ she met were asylum seekers. 22. My classmate, _____ studied hard for the test, failed. 23. There is a cafeteria _____ we can have lunch. 24. The man _____ sold me the car is my neighbor.

8. Spot the mistakes and correct them.

The town 1) which I was born has changed greatly over the last 50 years. Now there is a modern shopping centre in the place 2) that my school used to ba and all the children 3) whose went there have grown up and moved away. The local cinema, 4) that was built several years ago, used to be a dance hall 5) which big bands played. The park, 6) where was my favourite place as a child, is now a car park. Some things are still the same though. Mrs. Jones, 7) whom is now seventy years old, still lives in the High Street and Mr. Jones still owns the baker's shop. 8) that his two sons now run instead of him. The hospital 9) where I was born in is still standing, although it is now much bigger than it was at the time 10) which I was born. On the day 11) which my family and I left out home town we were all very sad.

1. _____   2. _____   3. _____   4. _____
5. _____   6. _____   7. _____   8. _____
9. _____   10. _____   11. _____

9. Join the beginnings and ends.

	Beginnings		Ends
1.	All the poetry	a)	that happened.
2.	At school I learnt nothing	b)	that he wrote was destroyed in a fire.
3.	I've told you everything	c)	that she said made any difference.
4.	Nothing	d)	that was ever made.
5.	It's the best western film	e)	that I could get.
6.	The most useful thing	f)	that was useful to me.
7.	This is the only hire car	g)	that you can do is leave now.
8.	You can have everything	h)	that you want.

10. Translate into English using relative clauses.

1. Будинок, де жили мої дідусь і бабуся, зносять. 2. Узбережжя Сассекса, яке знаходиться на півдні Англії, дуже красиве. 3. Не кожен, хто приходить до мене на свято, приносить мені подарунок. 4. Каліфорнія, яка знаходиться на західному узбережжі Америки, приваблює актрис, серферів і музикантів. 5. Це ті діти, мати яких поліцейська. 6. Куріння – шкідлива звичка, яка щороку стає причиною багатьох смертей. 7. Різдво – час, коли люди купують один одному подарунки. 8. У 1666 році велика пожежа знищила більшу частину Лондона. 9. Це собака, яка завжди гавкає, коли до неї наближаєшся. 10. В тесті було декілька запитань, на які я не зміг відповісти. 11. Супермаркет, який знаходиться біля нашого будинку, працює по неділях. 12. Намисто - це те, що носять на шиї. 13. Матч, про який ви говорили, закінчився катастрофою. 14. Саймон, мати якого вегетаріанка, не їсть м'яса. 15. Туристів, які мали дійсні паспорти, пустили в країну.

Relative pronouns are the words that introduce relative clauses. They can act as the subject or the object of the relative clause.

RELATIVE PRONOUNS
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	SUBJECT	OBJECT	POSSESSION
	BEFORE VERB. CANNOT BE OMITTED	BEFORE SUBJECT + VERB. CAN BE OMITTED	AFTER POSSESSOR/OWNER. CANNOT BE OMITTED
PEOPLE	WHO/THAT — That's the man who/that stole the money.	WHO/WHOM*/THAT — We need to find people (who/whom*/that) we can trust. *RARELY USED. VERY FORMAL	WHOSE — This is the story of a man whose ideas saved lots of lives.
THINGS ANIMALS	WHICH/THAT — That is the dog which/that attacked me the other night.	WHICH/THAT — I'll wear the trousers (which/that) I bought in Paris.	WHOSE/OF WHICH — The film, whose title (=the title of which) is unknown, will be set in the '60s.

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11. Is the relative pronoun the *subject* or *object* in these clauses?

1. That's the woman who lives next door. _____ 2. Our doctor is a person whom I really respect. _____ 3. He had a simple idea which changed the world. _____ 4. I've lost that nice ring which Bill gave me. _____ 5. It's a book that everybody talks about and nobody reads. _____ 6. Once there were three rabbits that lived near a river. ____ 7. That's the man who I wanted to see. _____ 8. An orphan is a child who hasn't got any parents. _____ 9. He keeps telling you things which you already know. _____ 10. They never thanked me for the money that I sent him. _____

12. Fill in the correct relative pronoun. Then write (S) for subject and (O) for object. State if the relatives can be omitted or not.

1. This is the window _____ I repaired last week.

2. He is tha man _____ intervied me fo the job.

3. The fish _____ I am cooking smells delicious.

4. This is the shop _____ sells the best fruit.

5. Those are the shelves _____ John made.

6. Look out! That's the dog _____ attacted John.

7. There were parts of the book _____ I found really boring.

8. She is the woman _____ helped me with my homework.

9. This is the story _____ I enjoyed most as a child.

10. That's tha man _____ own that place.

11. Give me that book _____ is behind you.

12. This is Mr. Brown _____ son has moved to Paris.

13. Here's the man _____ I met at the party.

13. Fill in the relative pronoun and put commas where necessary. Write whether the relative clause can be omitted or not.

1. My sister _____ works as a scientist, lives in America.

2. This icecream _____ comes from Italy is delicious.

3. The town _____ I grew up was very small.

4. James _____ hobby is rock climbing has broken his leg.

5. The sweater _____ Jenny bought me is too big.

6. The subjects _____ I'm studying are very difficult.

7. The school _____ I first went has closed down.

8. The country _____ I want to visit most of all is China.

9. Angela _____ best friend lives on Madrid has moved to Spain.

10. The boutique _____ is by my house is having a sale.

11. The book _____ I'm reading is very exciting.

12. Miss Hunter _____ works at the bank has been promoted.

14. A) Rewrite these sentences, putting the preposition at the end.

Example: *Computer programming is something about which I know little.*
Computer programming is something (which/that) I know little about.

1. It was a mistake for which they have already apologied.
_____

2. Mathematics is a subject in which she has little interest.
_____

3. It was the guerrillas to whom they sold the weapons.
_____

4. It was the Queen to whom the Prime Minister sent the letter.
_____

5. It was the bank from which he borrowed money.
_____

6. That was the year in which I was born.
_____

7. August 24 is the day on which our country celebrates its independence.
_____

8. That's the hospital in which the twins were born.
_____

9. That is the island on which we spent our honeymoon.
_____

10. These are the reasons for which I chose to marry him.
_____

B) Rewrite sentences 7-10 above using the relative adverb *when*, *where* or *why*.

Example: *That was the year when I was born.*

7. _____

8. _____

9. _____

10. _____

15. Read the text and think of the relative which best fits each space. Use only one word.

The return of the native

1980 was the year *when* (0) I first went back to the small village _____ (1) I was born. I was only three years old _____ (2) my parents went to settle in the States. _____ (3) I now consider my home. But like a lot of first-geberation Americans _____ (4) parents were constantly talking about 'home' as another

country. I was curious to find out more about this place from _____ (5) we had emigrated more than twenty years before. The reason _____ (6) I hadn't visited the land of my parents earlier – something _____ (7) I now regret – perhaps had something to do with the way _____ (8) they would always talk about it as if it were my real home, _____ (9) for me was the States. The first impression I got on arriving in Santa Maria was the heat, _____ (10) was unbearable. The people _____ (11) were waiting to greet me at the airport were all incredibly friendly and they spoke of the time _____ (12) I was a child in the village as if it was yesterday. My grandfather, _____ (13) eyes filled with tears when he saw me, and who I would be staying _____ (14) while on the island, looked increadibly like my father. _____ (15) hair had recently started to go grey. The village itself, _____ (16) was a two-hour journey up the mountain, was simply stunning.

16. Translate into English using relative clauses.

1. Цей новий фільм про хлопчика, який втратив батьків в автокатастрофі.

_____

2. DVD-рекордер, який я купив у цьому магазині кілька днів тому, не працює.

_____

3. Це книга, яку я рекомендував прочитати.

_____

4. Це готель, де ви зупинялися минулого року?

_____

5. Мій тато, який багато подорожує в справах, зараз в Австралії.

_____

6. Є кілька причин, чому я не маю права надавати вам будь-яку інформацію.

_____

7. Ми зупинилися у відомому готелі Rockstar, де був критий басейн.

_____

8. Чи писали ви тому, хто запропонував вам роботу?

_____

9. Це історія про молоду жінку, чий 5-річний син раптово зникає.

_____

10. Тенісний корт, на якому вони зазвичай грають, зараз не доступний.

_____

11. Це трапилося в той час, коли мій тато був без роботи.

_____

12. Де гроші, які я дав тобі вчора? _____

13. Це той чоловік, з яким я розмовляв днями.

_____

14. Містер Філдс, чия сестра є одним із провідних експертів у цій країні, говорив про небезпеки вірусу. _____

_____

15. Він не сказав нам, чому прийняв таке безвідповідальне рішення.

_____

16. Подарунок, який я отримала від батьків, був справді фантастичним.

_____

17. Мені потрібно купити подарунок для мами, у якої наступного тижня день народження. _____

_____

18. Молодіжний хостел, де ми зупинялися минулого тижня, був справді чудовим.

_____

Appendix 1

Text 1. A CYBERSECURITY CAREER

Basic Vocabulary

actionable,	той, що має велике практичне значення	to enhance	збільшувати, підвищувати
		viable step	вагомий крок
advisory board	консультативна рада	security clearance	допуск (*до секретної роботи або секретних матеріалів*)
breach	порушення		
acumen	кмітливість, хватка	eligibility	право на обрання
to align	узгоджувати	mindful	уважний, дбайливий
to mitigate	пом'якшувати, зменшувати	to stay abreast of	не відставати від
pipeline	процес підготовки (розробки)	accreditation requirements	вимоги до акредитації

Cybersecurity breaches affect businesses large and small, and the annual cost of **computer-and network-based crimes** worldwide is estimated to be more than \$400 billion. As organizations increasingly use data networks for business, commerce and the transfer of sensitive information, the risks multiply, as do the need for qualified cybersecurity professionals.

University of Phoenix set out to develop actionable recommendations to prepare students for cybersecurity careers delivering a report on it, dubbed Cybersecurity Workforce Competencies: Preparing Tomorrow's Risk-Ready Professionals. The research identifies three education-to-workforce gaps that leave employers and organizations particularly vulnerable: competency, professional experience and education speed-to-market.

The report is based on a year of research, including analysis of industry competency models and labor statistics, which led to a national focus group, followed by the roundtable with industry leaders.

The growing frequency, sophistication, and costs of cyberattacks threaten business continuity for organizations of all sizes. That is why preparing and attracting the next generation of cybersecurity professionals is critical to the health of the economy and business globally.

Roundtable participants say the following actions by industry and education leaders can have the most immediate impact on closing the gaps:

1. Encouraging problem-based learning via case studies and labs;
2. Offering meaningful internships for cybersecurity degree completing; and
3. Developing curriculum and career resources that are informed by cybersecurity employers.

The multi-faceted cybersecurity field demands a strong workforce comprised of individuals who can adapt to constant shifts in the sector. The industry increasingly needs professionals who possess both technical skills and business acumen, and curriculum is shifting to reflect these dynamics. Relevant education and training aligned to industry requirements are crucial to protecting and growing business infrastructure in the US and globally. Having qualified cybersecurity professionals is critical in all industries. Employers must act quickly to close workforce gaps and mitigate the risks that threaten enterprises. The roundtable report by University of Phoenix provides practical recommendations to key stakeholder groups that must work together to build the cybersecurity talent pipeline.

The report offers the following tips for students interested in cybersecurity careers and for employers struggling to fill job openings:

For Students:

1. _____Obtain the relevant certifications that can help enhance employability.
2. _____Many jobs in this field may require a security clearance. Be mindful that past actions could affect your eligibility.
3. _____Demonstrate interest in the field by developing professional relationships. Stay abreast of industry trends by joining an association.
4. _____Seek opportunities to demonstrate your expertise by co-presenting at industry conferences and completing relevant projects.
5. _____Look for ways to obtain professional experience through internships, jobs shadowing or work-study jobs.

For Employers:

6. _____Offer internships and participate in higher education curriculum advisory boards.

7. _____Partner with middle schools and high schools to increase awareness of cybersecurity career opportunities.

8. _____Remove barriers to entry-level jobs by separating tasks that require a security clearance. Many applicants, such as non-U.S. citizens, may be unable to obtain a security clearance readily.

9. _____Develop partnerships with higher education institutions to support curriculum development, career networking, and internships.

10. _____Develop and fund programs that provide industry experience to students. Ensure programs meet the National Security Agency's Centers of Academic Excellence accreditation requirements, and seek accreditation approval for such programs.

11._____Internships are a viable step to employment and demonstrate the value of entry-level experience as a pathway to a career.

(adapted from http://www.infosecurity-magazine.com)

EXERCISES

1. Read and translate the text. Learn the words from *Basic Vocabulary***.**

2. Read the text again. Work out the meaning of the highlighted words. Then match them with their definitions *a-t*.

a. _____*n* a part-time job for undergraduate and graduate students with financial need, allowing them to earn money to help pay education expenses.

b. _____*n* protection from the criminal or unauthorized use of electronic data, or the measures taken to achieve this.

c. _____*n* a track that a person can walk along.

d. _____*n* the activities involved in buying and selling things.

e. _____*n* a temporary job that a student or recent graduate takes in order to get experience in the area they want to work in.

f. _____*v* to get something, especially by asking for it, buying it, working for it, or producing it from something else.

g. _____ *n* the subjects that students study at a particular school or college.

h. _____ *v* to give someone or something a particular name or description.

i. _____ *n* an important skill that is needed to do a job.

j. _____ *n* a person or company that has invested in a business and owns part of it.

k. _____ *n* a group of workers who do a job for a period of time during the day or night, or the period of time itself.

l. _____ *n* the ability to make good quick decisions and judgments.

m. _____ *adj* extremely important or necessary.

n. _____ *n* the group of people who work in a company, industry, country, etc.

o. _____ *adj* able to be easily physically, emotionally, or mentally hurt, influenced, or attacked.

p. _____ *n* a discussion or meeting in which everyone has the same status and rights.

q. _____ *v* to make something less harmful, unpleasant, or bad.

r. _____ *adj* having practical value.

s. _____ *v* to organize activities or systems so that they match or fit well together.

t. _____ *n* when a student or job-seeker follows and observes a professional for a short period of time, such as a day or a week.

3. Look through the text and choose the most suitable topic sentence, *a-k*, **for each paragraph**, *1-11*, **from the list below**.

a Champion cybersecurity careers.

b Get certified.

c Hire interns.

d Understand clearance requirements.

e Encourage professional experience.

f Steer clear of clearances.

g Promote partnerships.

h Get involved.

i Build a portfolio.

j Seek opportunities.

k Engage with educators.

4. a) Read the text. Do you think there is any difference between cybersecurity and information security? Prove your point of view.

Cybersecurity vs. Information Security

Hollywood exerts influence over many areas of modern life, even down to how people think about and refer to different types of work. Movies and television shows often depict the professionals who deal with computer security as Cybersecurity or information security specialists. These terms are often used in the entertainment industry in a way that implies that they are identical, which can create confusion for those who are interested in pursuing a career in one of these exciting and growing fields. Prospective students need to be able to distinguish between these two professions in order to determine which career path is the best fit.

Cybersecurity

Cybersecurity is the use of various technologies and processes to protect networks, computers, programs and data from attack, damage or unauthorized access. Since all computer systems rely on operating systems and networks to function, those areas are often targeted for attack and are the main sources of many security vulnerabilities.

Cybersecurity jobs require strong technical skills and most require a technical degree in Cybersecurity, computer science, information technology or engineering. Cybersecurity degree courses often offer classes in:

Computer forensics

Advanced computer security issues and practices

General computer topics.

Cybersecurity jobs might include information systems security professional, senior system manager and system administrator.

Information Security

Information security involves protecting information from unauthorized access, use, disruption, modification or destruction, regardless of whether the information is stored electronically or physically. Cybersecurity is a subject of the larger area of information security.

Similar to Cybersecurity jobs, information security jobs also rely on strong technical skills since most information is stored digitally. A solid

background in networking, system administration, software development and data integrity and security is an asset to those looking to enter this field.

Prospective students should also consider supplementing technical courses with general communication and business courses. Information security jobs include security systems administrator, security auditor and security analyst. Understanding technology and security issues is critical for any Cybersecurity or information security professional, regardless of the specific field of specialization. By understanding the difference between these two related but distinct fields, individuals choose the most appropriate educational options that will best prepare them for a career that matches their goals and interests.

The Bottom Line

When deciding on one of these computer security-related career paths, it is critical to be clear and detailed about exactly what it is you're looking for in a career. Cybersecurity and Information Security are two similar fields which offer a great variety of job options, but they are distinct career choices. By fully understanding the differences and similarities between these two fields of study, individuals will better be able to select the educational path that best matches their skills, interest and career goals. By researching potential professions carefully, you'll be able to discern the differences and similarities between several possible programs of study. Gathering data about your prospective field and evaluating it carefully will allow you to make an informed choice about the best career path for you.

(adapted from http://www.floridatechonline.com)

b) Do the following statements agree with the information given in the text? Write T (true), F (false), NG (not given) next to the sentences 1-6.

1. Cybersecurity is a term made by Hollywood movies. _____ 2. Cybersecurity and information security are different things. _____ 3. Cybersecurity implies searching information in the internet. _____ 4. There is only one job in cybersecurity field. _____ 5. It's not important to distinguish information and cyber security. _____ 6. There is similarity between information and cyber security. _____

5. Choose no more than five words from the passage for each answer.

1. Student has to distinguish information and cyber security to make a proper choice of his _____. 2. Viruses, cyber-attacks, spies are one of many _____ that network can face with. 3. Information security deals with protecting information whether it stored _____. 4. Information security students are also trying to take such courses as _____. 5. By understanding differences between _____ students can choose their future career path. 6. If you know differences between cybersecurity and information security, you are able to select profession that best matches you _____.

6. Try to find as many advantages and disadvantages of both professions as possible. Which one would you like to choose? Explain your point.

7. Complete the letter by filling the gaps with a word from the box below.

CV	post	department	developer	interview
salary	closing	experience	qualified	skills

Dear Sir/Madam,

I am writing to apply for the _____ of Software Development Manager advertised on February 9th on the University of Kent vacancy database. I have been working for the past ten years as a senior _____ in a telecommunication company in the IT _____. I think now is the right time to apply for a better position as I believe I have gained relevant _____ and skills.

As you can see from my enclosed _____ I am a _____ engineer and believe I have excellent technical and management _____. My current _____ is $55,000 a year.

I realize that the _____ date for applications was last Saturday, but I hope you will still consider my application. I will be available for _____ at any time, apart from the 12-24 March when I arranged a holiday in Italy.

I look forward to hearing from you soon.

Yours faithfully,

John Smith.

8. Translate into English using your active vocabulary.

1. 90% американських підприємств зазнали принаймні одного порушення кібербезпеки протягом попередніх 12 місяців. 2. Команда демонструє високий рівень професійної компетентності. 3. Майже кожен студент-медик повинен пройти стажування після закінчення медичної школи. 4. Ми тісно узгодили нашу науково-дослідницьку роботу з потребами бізнесу. 5. Ми шукаємо когось із діловою хваткою та технічним досвідом. 6. Ми проведемо дослідження, щоб заповнити прогалини в наших знаннях.

9. Work out your definition for cybersecurity using key words in the table

Security	acumen	cloud	Network
APPLICATION	TRUST	INTERNET	VIRUS
technology	internship	Stakeholder	computer
LINK	Privacy	ACCESS	workforce

10. Read the definitions for cybersecurity and choose the best one. Explain your point.

a) The activity or process, ability or capability, or state whereby information and communications systems and the information contained therein are protected from and/or defended against damage, unauthorized use or modification, or exploitation.

b) Cybersecurity is the body of technologies, processes and practices designed to protect networks, computers, programs and data from attack, damage or unauthorized access. In a computing context, the term security implies cybersecurity.

c) Computer security covers all the processes and mechanisms by which digital equipment, information and services are protected from unintended or unauthorized access, change or destruction and the process of applying security measures to ensure confidentiality, integrity, and availability of data both in transit and at rest.

11. a) Speak on the differences between cybersecurity and information security.

b) Speak on the skills a cybersecurity professional should possess. Explain your point.

Text 2. COMPUTER PROGRAMMER CAREER

A computer programmer is a computer scientist who develops specialized software, hardware, databases or networks. Programmers can work in various industries where they make customized programs that serve specific purposes. For example, a computer programmer in the health care industry may design databases to manage patient records securely. Another programmer in the health care industry may create new computer hardware that supports the development of complex surgical equipment. In other industries, computer programmers may develop mobile games, or they might design web interfaces for business websites. Since programmers can work in such diverse roles, their responsibilities vary widely. Here are some specializations in computer programming with descriptions of their typical job duties:

1. Hardware programmers work on computer hardware design, develop and test the electrical components that make up a computer's physical systems. For example, they write codes that tell the computer to turn on or off when a user presses the power button. They code these instructions into the computer's hardware so it performs the intended process when users interact with the keyboard, mouse or touchscreen interface. Here are some typical duties for hardware programmers: compose detailed specifications for hardware systems, design and develop structures like CPUs, microprocessors, circuits and disk drives; test hardware for performance and make adjustments as needed.

2. Web developer is a programmer who specializes in designing and creating web pages. They use software to create web pages that have attractive designs and function as intended. Some web pages may offer more interactivity than others for users. Developers use programming languages to design websites that express the function and style that represents the brand of the site owner. Web developers collaborate with clients to design effective web pages, update web pages as needed, chedule and conduct routine web page maintenance.

3. Software developers focus on creating programs that allow actions to function in a computer system. The examples of software functions may include programs that allow users to open files, edit documents, save data or print pages. Every program has a unique design and function, and software developers often specialize in working with clients to understand their needs so they can create custom programs.

4. Database developers use codes to construct programs. Databases allow users to store large amounts of data. They also let users analyze, interpret and organize the data they store. Developers who work on databases have specialized skill sets in programming languages specifically for database programming. Since these programs typically serve users in particular industries, many businesses hire database developers to create custom software that specifically addresses their data storage and processing needs. These professionals design and implement new databases that meet the specifications of clients, perform routine maintenance to update and improve existing database systems, test databases for performance and analyze clients' existing database systems to identify areas for improvement.

5. Quality control specialists review codes for errors. They ensure codes are secure and functional for implementation. For example, a bank may hire a quality control specialist to review the code of new software they plan to use for their customers. It's important for the bank to hire a professional to review the code's security so unauthorized individuals can't access their customers' private financial information. These specialists play an important role in digital security. They can also ensure the functionality of codes so programs work as intended, protecting businesses and their customers from unexpected crashes and delays. Quality control specialists review codes for errors or security concerns, run test codes and analyze them for functionality concerns. They compose reports to suggest improvements to the software development team and collaborate with software developers to improve the quality of codes.

6. Network and computer systems administrators design, install, and support an organization's computer systems. They are responsible for local-area networks (LAN), wide-area networks (WAN), network segments, and Internet and intranet systems. They work in a variety of environments,

including professional offices, small businesses, government organizations, and large corporations. They maintain network hardware and software, analyze problems, and monitor networks to ensure their availability to system users. These workers gather data to identify customer needs and then use the information to identify, interpret, and evaluate system and network requirements. Administrators also may plan, coordinate, and implement network security measures.

Systems administrators are responsible for maintaining network efficiency. They ensure that the design of an organization's computer system allows all of the components, including computers, the network, and software, to work properly together. Furthermore, they monitor and adjust the performance of existing networks and continually survey the current computer site to determine future network needs. Administrators also troubleshoot problems reported by users and by automated network monitoring systems and make recommendations for future system upgrades.

7. In some organizations, **computer security specialists** may plan, coordinate, and implement the organization's information security. These workers educate users about computer security, install security software, monitor networks for security breaches, respond to cyber attacks, and, in some cases, gather data and evidence to be used in prosecuting cyber crime. The responsibilities of computer security specialists have increased in recent years as cyber attacks have become more common.

https://www.indeed.com/career-advice/finding-a-job/types-of-computer-programmer)

Text 3. COMPUTER SCIENCE TEACHERS

Active Vocabulary

prowess ['PRAVIS]	майстерність, досконалість	to underpin	підтримувати
spreadsheet	таблиця	hands-on activities	практичні заняття
from scratch	з нуля	to troubleshoot	виявити та вирішити (*проблему*)

There are some subjects that are much more difficult to teach than others. It happens because they relatively recently appeared in the

educational system, and the areas to which they belong have not fully developed yet. One of the subjects is computer science, which require teachers to have special skills.

Computer science (CS) teachers educate pupils on how computers work and how to use them. Pupils learn about the hardware and software that **underpins** today's computers. They may be taught how to use a keyboard and mouse effectively, as well as how to navigate a web browser, verify internet sources, and develop computer skills. A CS teacher is in charge of preparing pupils for computer and programming careers.

CS teachers demand a combination of computer and technology and soft skills. Computer and technology skills involve knowledge of hardware, understanding of operating systems, proficiency in typing, and **prowess** in working in **spreadsheets** and on presentations. They need to be proficient in many programming languages in addition to Python, C, Java and others and have a good understanding of algorithms, data structures, and statistical analysis.

In addition to technical skills, CS teachers also need to have strong soft skills such as critical thinking, communication, and collaboration. They should be capable of working effectively in a team and thinking critically about complex problems.

As computer sciences are constantly evolving, CS teachers need to adapt to new technologies and learn new skills throughout their career. They should be passionate enough to be a lifelong learner and willing to update their skills and knowledge continually.

Today, computer science education is incorporated into the curriculum in schools. Some of the typical responsibilities associated with CS teachers include:

- Researching and planning lessons related to computer science topics.
- Utilizing various techniques and resources to deliver lessons, such as written materials, readings, videos, lectures and discussions.
- Developing, assigning and grading assignments, projects and tests.

- Monitoring pupils' progress and providing feedback as needed to support their performance.
- Holding office hours to meet with pupils individually and offer guidance.
- Reviewing materials and lesson plans to ensure they are up-to-date.
- Ensuring proper maintenance and care of computer equipment.

How to be a good CS teacher? Firstly, it is important to be patient and understand that not everyone learns at the same pace. Secondly, it is important to be able to break down complex concepts and make them easy to understand. Thirdly, it is helpful to provide examples and **hands-on activities** to help students learn. Finally, it is important to be able to **troubleshoot** and help students when they are having difficulty.

A computer science does not only focus on theoretical work. It is critical to have a strong understanding of computer technology in order to change the world. The goal of computer science pedagogy is to assist pupils in becoming proficient in this field.

Learning about computer science from an early age and how to write programs **from scratch** will allow pupils to logically think independently and change the world in ways that have never been possible before.

GRAMMAR

PASSIVE VOICE

The Passive Voice is used
1) when the agent (the person who does the action) is unknown, unimportant or obvious from the context: Java **was developed** in 1995
2) to make statements more polite or formal. My new vase **has been broken**. (It's more polite than saying "You've broken my new vase")
3) when the action is more important than the agent – as in news reports, formal notices, instructions, processes, headlines, advertisements etc. Java **was designed** to create Internet applications.
4) to put emphasis on the agent. Java **was invented** by Sun Microsystems.
The Passive voice is formed by using the appropriate tense of the verb *to be + past participle*

Present Simple	Waitresses and waiters **serve** customers.	Customers **are served** by waitresses and waiters.
Present Continuous	Tom **is preparing** that report.	That report **is being prepared** by Tom.
Present Perfect	She **has suggested** a new idea.	A new idea **has been suggested**.
Past Simple	Tom **opened** the door.	The door **was opened** by Tom.
Past Continuous	Tom **was translating** the article.	The article **was being translated** by Tom.
Past Perfect	He **had returned** the book to the library.	The book **had been returned** to the library.
Future Simple	The trick **won't fool** me.	I **won't be fooled** by the trick.
Future Perfect	They **will have learned** the poem by the evening.	The poem **will have been learned** by the evening.
Present Infinitive	She can **buy** an envelope in the post-office.	An envelope can **be bought** in the post-office.
Perfect Infinitive	She must **have left** her report at home.	Her report must **have been left** at home.

1. Change the following active sentences to passive sentences:

1. People grow corn in Iowa. _____ in Iowa. 2. Someone made this antique table in 1734. _____ in 1734. 3. Someone has stolen my purse. _____. 4. Someone was making the coffee when I walked into the kitchen. _____ _____ when I walked into the kitchen. 5. Translators have translated that book into many languages. _____ _____ into many languages. 6. Jim's daughter drew that picture. _____ Jim's daughter. 7. Is Professor Rivers teaching that course this semester? _____ this semester? 8. When did someone invent the radio? _____? 9. The mail carrier had already delivered the mail by the time I left for school this morning. _____ _____ by the time I left for school this morning. 10. Someone will serve dinner at six. _____ at six. 11. The teacher is giving a test in the next room right now. _____ in the next room right now. 12. I will have finished my homework by the time I go out on a date tonight. _____ by the time I go out on a date tonight.

2. Use the words in the following list to complete the sentences. All the sentences are passive. Use any appropriate tense.

build	cause	confuse	divide	expect	frighten	kill
offer	order	report	spell	surprise	surround	wear

1. An island _____ by water. 2. The *-ing* form of "sit" _____with a double *t*. 3. Even though construction costs are high, a new dormitory _____ next year. 4. The class was too large, so it _____ into two sections. 5. A bracelet _____ around the wrist. 6. The Johnson's house burned down. According to the inspector, the fire _____ by lightning. 7. Al got a ticket for reckless driving. When he went to traffic court, he _____ to pay a fine of $100. 8. I read about a hunter who _____ by a wild animal. 9. The hunter's fatal accident _____ in the newspaper yesterday. 10. I didn't expect Lisa to come to the meeting last night, but she was there. I _____ to see her there. 11. Last week I _____ a job at a local bank, but I didn't expect. 12. The children _____ in the middle of the night when they heard strange noises in the house. 13. Could you try to explain this math problem to me again? Yesterday in class I _____ by the teacher's explanation. 14. Is the plane going to be late? No. It _____ to be on time.

3. Rewrite the following sentences in the Passive.
   a) Leave out the italicized words:
   1. *They* punished this man for something he hadn't done. _____ _____ he hadn't done. 2. *Everyone* knows this piece of music quite well. _____ quite well. 3. Did the *government* take any important measures in the past few weeks? _____ _____ in the past few weeks? 4. Do *they* perform this play regularly? _____ _____ regularly? 5. I don't think *anyone* can help me. _____. 6. The *soldier* kept the man prisoner. _____.6. *They* built this tunnel two years ago. _____ two years ago. 7. *He* must finish his

work before eight o'clock. _____ 8. *His friend* will never forget him. _____. 9. *No one* could possibly have recognized him. _____.

b) **Make the italicized words the subject of the sentence. Decide whether the agent should be mentioned or not.**
1. The news didn't surprise *us*, so it didn't frighten us. _____

_____, so it didn't frighten us. 2. Somebody has stolen *my car*. _____

_____. 3. Nobody has ever found *the secret*. _____

_____. 4. They approved of *our plan*. _____.

5. One speaks of *them* everywhere. _____.

c) **Supply the by-phrase only if it contains relevant and essential information.**
1. I will bring up this question at our next meeting. _____

_____. 2. We shall then deal with it more fully. _____

_____. 3. Have you looked into this matter? _____

_____. 4. The fact do not bear out your argument. _____

_____ 5. No one has ever looked after this house properly. _____

_____. 6. Is anybody attending to you? _____

_____. 7. They have turned down my application. _____

_____. 8. Thieves broke into the National Bank last night. _____

_____ last night.

4. **Complete these sentences with the following verbs (in the correct form)**:

arrest	carry	cause	do	make
repair	send	spend	wake up	

1. The situation is serious. Something must _____ before it's too late.

2. I should have received the letter by now. It might _____ to the wrong address. 3. A decision will not _____ until the next meeting. 4. Do you think that more money should _____ on education? 5. This road is in very bad condition. It should _____ a long time ago. 6. The injured man couldn't walk and had to _____ to

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hospital. 7. I told the hotel receptionist I wanted to _____ at 6.30 the next morning. 8. If you hadn't pushed the policeman, you wouldn't _____. 9. It's not certain how the fire started, but it might _____ by an electrical fault.

5. Rewrite the following sentences in the Active.

1. The school was struck by lightning. _____

2. This morning the burglar was arrested by the police. _____ _____. 3. One type of air pollution is caused by hydrocarbons. _____ 4. An elaborate supper for the miners was prepared by Mr. Patel and his children. _____ _____5. The cookies were stolen by the Mad Hatter. _____ 6. New York City's Central Park was designed in 1857 by F. L. Olmsted and Calbert Vaux. _____ _____

7. It was decided by the court that the contract was invalid. _____ _____ 8. The first commercially successful portable vacuum cleaner was invented by a janitor who was allergic to dust. _____ _____ 9. After Leonardo da Vinci's death, the Mona Lisa was purchased by King Francis I of France. _____ _____.

10. The allegorical novel Animal Farm was written by British author George Orwell during World War II. _____ _____

6. Translate into English. Use the Passive voice in the proper tense form.

1. Роботу щойно завершено. 2. Доповідь слухали дуже уважно. 3. Його вчора ніде не бачили. 4. Телеграму отримають лише завтра. 5. У Києві будується нова станція метро. 6. Коли була написана ця пісня? 7. Його попросили взяти участь у концерті. 8. Про цю виставу багато говорять. 9. Нам порадили написати статтю

англійською мовою. 10. Вас просять до телефону. 11. Мені дали цю книгу лише на тиждень. 12. Цей фільм не дубльований на українську мову. 13. Ця п'єса поставлена в нашому театрі. 14. Мене про це ніколи не запитували. 15. В дитинстві її навчали музиці. 16. Після лекції нам покажуть фільм про Україну. 17. Телеграму ще не відправили. 18. Цікаво, чи сказали йому про це вже, чи ні. 19. З вас будуть сміятися, якщо ви це скажете. 20. Ця фортеця побудована в XVII столітті. 21. Коли стаття буде написана, її помістять у журналі. 22. Твір вже написаний? 23. Ця доповідь була написана до того, як були зроблені нові відкриття в цій сфері. 24. Мені вже ставили таке запитання на екзамені. 25. Я впевнена, що вам поставлять багато запитань, коли ви будете розповідати про свою подорож Європою. 26. Йому раніше вже ставили подібні запитання, тому він знав, що відповісти. 27. Чому ви відмовились, коли вам запропонували цю роботу? 28. За хворою матір'ю доглядає її донька. 29. Чи послали за лікарем? У дитини висока температура. 30. Він зробив все, про що його просили.

Be

be about to: (int) be on the point of
be after: (tr) 1) want, try to gain, 2) chase
be/go down with: (tr) be ill with
be for: (tr) be in favour of
(*opp*: **be against**)
be off: be absent from school, work, etc.
be on: (int) be shown (on TV, at the cinema, etc.)
be out: (int) be unfashionable
be through with: (int) have ended relationship/job etc.
be up to: (tr) be capable of

Break

break down: (int) 1) stop working (of cars, engines, machines etc.), 2) lose control of feelings (of people), 3) fail
break off: (tr) end a relationship/ agreement; 2) suddenly stop talking
break into: (int) 1) enter by force, 2) start doing sth suddenly (laughter etc.)
break out: (int) 1) begin suddenly (war, fire etc), 2) escape from a place
break up: (int) stop for holidays (of schools etc.)

Bring

bring about: tr) cause to happen
bring back: (tr) to recall
bring down: (tr) cause to fail
bring forward: (tr) to arrange for smth to be done at an earlier time than originally proposed
bring out: (tr) publish, put on the market
bring round: (tr) 1) make sb regain consciousness, 2) persuade
bring up: (tr) raise a child

Call

call for: (tr) require; demand
call in: visit briefly, **look in**
call off: (tr) cancel
call out: (int) 1) shout, 2) send for smb in an emergency

Carry

be carried away: to be very excited.
carry off: (tr) to do smth successfully
carry on (with): (tr) to continue with
carry out: (tr) do, complete sth.

Come

come across: (tr) meet/find by chance
come along: (int) 1) hurry up, *syn.* come on 2) appear, arrive by chance
come by: (tr) obtain
come off: (int) succeed
come round: (int) visit casually 2) regain consciousness, come to
come to: (tr) amount to a total
come up with: (tr) find, think of (a solution, an answer, etc.)

Cut

cut in/into: (tr) 1) to divide into parts; 2) to interrupt, break in
cut off: (tr) disconnect
cut out: (tr) omit
be cut out for/be cut out to be: be suited for (a profession)
cut up: (tr) cut into small pieces

Do

do away with: (tr) 1) abolish; 2) kill
do down: (tr) speak badly of smb.
do in: (tr) kill
do up: (tr) 1) fasten; 2) wrap 3) repair, redecorate; 4) make oneself more attractive, dress up
(could) do with: (tr) want; need sth.
do without: (tr) live/continue without having sth.

Fall

fall apart: (int) 1) break into pieces, 2) end in failure
fall behind: (int) 1) fail to keep up 2) be late (with payment)
fall into: (tr) belong to; be part of
fall in with: (tr) agree with; **go along with**

Get

get away with: (tr) escape
get back: (tr) recover possession of
get down to: (tr) start doing sth seriously
get on: (int) 1) make progress 2) enter a bus, train etc. (*opp*. **get off**)
get on with: (tr) have a friendly relationship with sb; **get along with**
get through: (tr) manage to finish smth.
get through to: (tr) = reach smb by telephone

Give

give smth/sb away: (tr) 1) reveal sth/betray sb 2) give smth free of charge
give back: (tr) return
give off: (tr) emit (heat, smell, etc.)
give out: (int) come to an end
give up: 1) (tr) abandon a habit; quit; 2) surrender; **give in**

Go

go around: (int) be enough for everyone to have a share
go away: (int) leave
go in for: (tr) enter a competition, exam etc.
go on: (int) 1) continue 2) happen
go through: (tr) examine in detail

Hold

hold back: (tr) control (oneself, crowds etc)
hold in: (tr) to keep under control
hold on: (int) wait (esp. on the phone)
hold to: to follow exactly (rules, customs)
hold up: (tr) 1) to delay 2) rob sb using a weapon

Keep

keep away from: (tr) stay away
keep back: (tr) not tell
keep down: (tr) cause to remain at a lower level

keep in: (tr) make sb stay indoors (as punishment)
keep on: (tr) continue doing smth
keep up with: (tr) 1) proceed at an equal pace with, 2) continue to be informed (news, events)

Look

look after: (tr) to take care of
look down on: (tr) to despise
look for: (tr) to search for
look forward to: (tr) to anticipate with pleasure
look into: (tr) to investigate
look in on smb: to pay a short visit to
look out for: (tr) pay attention in order to see/find sb.
look over: 1) to examine carefully; 2) to revise briefly or quickly
look through: (tr) 1) to look at quickly; 2) to study smth carefully; 3) not to notice sb.
look up: (tr) to look for smth in an appropriate book or list
look up to;(tr) to respect (*ant*: **look down on**)

Make

be made for: suit exactly
make for: to go towards; head for
make over = to give the possessions of sth to sb else
make out: (tr) 1) to distinguish; 2) to understand; 3) to write out, **fill in**
make sth up to sb: compensate sb for sth
make up: (tr) 1) to invent (a story, an excuse. etc.) 2) to put cosmetics on; 3) to become friends again; 4) to form as a whole;
make up one's mind: to decide
make up for: (tr) to compensate, to repay sb for sth

Put

put/get across: (tr) communicate successfully

put aside: (tr) save, **put by**

put down: (tr) 1) make a note, write down, 2) pay a deposit for smth.

put off: (tr) postpone

put on: (tr) 1) dress oneself in, 2) increase in weight, 3) switch on, 4) (of a show/performance) cause to take place

put out: (tr) 1) exstinguish (fire, etc.), 2) cause inconvenience to sb.

put through: (tr) 1) connect by telephone, 2) make sb undergo or suffer sth.

put up: (tr) 1) to erect, build, 2) to show in a public place

put up with: (tr) tolerate, bear

Run

run across: (tr) meet sb/find sth by chance

run after: (tr) chase

run away: (int) escape (from home, duty, etc, **run off**

run away with: (tr) steal

run down: (tr) 1) knock down (with a vehicle); run over, 2) speak badly of sb

run into: (tr) meet sb unexpectedly, 2) collide with sth in a vehicle,

run out of: (tr) no longer have a supply of sth

run through: (tr) rehearse, check or revise quickly

run up against: (tr) encounter

See

see about: (tr) deal with, see to

see into: (tr) to have knowledge of

see off: (tr) accompany a traveler to his/her plane, trin, etc.

see over: (tr) inspect a place, **look round**

see to: (tr) take care of

Stand

stand by: (tr) support sb (esp. in diddiculties)

stand for: (tr) be an abbreviation for

stand out: (int) be noticeable

stand up to: (tr) resist

stand up for: (tr) support/defend sb or sth

Take

be taken aback: be strongly surprised

take after: (tr) resemble, look or act like a relative

take away: (tr) remove

take back: (tr) 1) to apologise, 2) to remind of the past, 3) to withdraw

take for: (tr) identify wrongly

be taken in: (tr) be deceived

take in: (tr) 1) give accommodation, 2) make clothes narrower (*opp*: **let out**), 3) fully understand.

take off: 1) (tr) to remove clothes (*opp*: **put on**), 2) (int) (of plane) leave the ground

take on: (tr) 1) undertake work/ responsibility, 2) employ

take out: (tr) 1) remove, 2) clean

take sb out: (tr) take sb to a restaurant, etc.

take over: (tr) gain control of sth

take to: (tr) like

Turn

turn away: (tr) refuse admittance

turn down: (tr) 1) to refuse an offer, reject, 2) to reduce volume (*opp*. **turn up**)

turn sb in: (tr) to give sb to the police

turn into: (tr) to change into, become

turn off: (tr) switch off (*opp*: **turn on**)

turn out: 1) (tr) produce, 2) (int) prove to be

turn over: (int) turn to a new page

turn to: (tr) go to sb for help/advice

turn up: (int) arrive/appear

Appendix 3.   Prepositional phrases

at the age of	at ease	at midnight	at school
at the airport	at the end of	at the moment	at sea/the seaside
at the beginning of	at first	at night/noon	at short notice
at breakfast/ dinner	at first sight	at once	at the station
lunchtime	at a glance	at peace/war	at the table
	at hand	at random	at the time
at the bus stop	at home	at present	at times
at the crossroads	at a hotel	at any rate	at the top of
at dawn/sunset	at last	at one's request	at the weekend
at one's desk	at (the very) least	at the same	at work
at the door	at a loss	time	at 23 Oxford St.
by accident	by choice	by marriage	by post/airmail
by all accounts	by day/night	by means of	by profession
by birth	by force	by mistake	by request
by bus/boat/train	by heart	by nature	by sight
by chance	by invitation	by now	by surprise
by cheque	by law	by phone	by the way
for ages	for ever	for nothing	for the time being
for breakfast/	for fear of	for once	for a visit/holiday
lunch/dinner	for fun/ good	for the rest of	for a walk
for certain	for granted	for the sake of	for a while
for a change	for luck	for sale	
from now on	from experience	from memory	from scratch
in addition to	in (good/bad)	in good health	in practice/theory
in advance (of)	condition	in honour of	in private/public
in a bad temper	in confidence	in a hurry	in progress
in bed	in control (of)	in sb's interest	in ruins
in the beginning	in danger	in the long run	in secret
in blossom	in demand	in love with	in short
in brief	in detail	in a mess	in the sky
in business	in the end	in the middle of	in stock
in any case	in exchange for	in the mirror	in the suburbs
in cash	in existence	in a moment	in the sun/shade
in charge of	in fact	in a good mood	in good/bad taste
in common	in fashion	in order to	in tears
in comparison with	in favour of	in other words	in time/in no time
in conclusion to	in general	in particular	in touch
	in haste	in the past	in trouble

off colour	off the map	off the point	off the road
off duty	off the peg	off the record	off school/work
off limits			
on account of	on a cruise/trip	on leave	on the right
on arrival	on demand	on the left	on sale
on average	on a diet	on the market	on schedule
on balance	on duty	on merit	on the screen
on the beach	on fire	on the news	on strike
on behalf of	on the (4th) floor	on page	on good/bad terms
on board	on foot	on the phone	on time
on the border	on the one hand	on the platform	on a tour/trip
on business	on the other hand	on purpose	on vacation
on condition	on holiday	on the radio/TV	on the way
on the contrary	on an island	on reflection	on the whole
out of breath	out of difficulties	out of practice	out of touch
out of control	out of fashion	out of the question	out of tune
out of danger	out of hand	out of reach	out of use
out of date	out of order	out of sight	out of work
to one's astonishment	to one's surprise	to this day	to some extent
under age	under control	under discussion	under pressure
under arrest	under construction	under orders	under the weather
with regard to	with a view to		within minutes
without delay	without fail	without success	without warning

Appendix 4   Verbs, Adjectives, Nouns with prepositions

Verb + preposition		
account for	escape from	provide sb with sth
accuse sb of doing sth.	explain sth to sb	react to
agree on	forget about sth	regard sb/sth as
apologise to sb for sth	forgive sb for sth	rely on sb/sth
apply to sb for sth	happen to sb/sth	remind sb about sth
arrive at (a small place)	head for	reply to
arrive in (a big place)	hear about (=be told)	save from
ask sb for sth	hear from (= receive a	sentence sb to (prison)
associate with sb	letter)	shout at sb (*reprimand*)

believe in sth	hear of sb/sth (*know*	shout to sb (*so as to be heard*)
begin with	*that sb/sth exists*)	smile at sb/sth
belong to sb	insist on	be/feel sorry for sb
blame sb/sth for sth	intent upon/on sth	shout at
borrow sth for sb	introduce sb to sb	spend money on
care about sb/sth	invite sb to	spend time in/on (-ing)
complain to sb about sth	know of/about	stare at
concentrate on sth	laugh at	suffer from (*an illness*)
congratulate sb on	live on (*money/food*)	tease sb about sth
consist of sth	live with sth	thank sb for doing sth
convert into	(be) married to sb	think about sb/sth
crash into sb/sth	mistake sb for sb	think of sb/sth
deal with	occur to sb	threaten with
decide on	pay sb for sth	throw at (*in order to hit*)
depend on sb/sth	point at	throw to (*in order to catch*)
divide sth into	prefer sb/sth to sb/sth	translate into
dream about sb/sth	prevent from	wait for sb/sth
dream of being/doing	protect sb/sth from/	waste time on
drive into sb/sth	against sb/sth	warn sb of/against sb/sth

	Adjective + preposition	
advantage of	(un)friendly to sb	resistant to sth
afraid of sb/sth	frightened of sb/sth	responsible for
amased at/by sth	furious about sth	rude to sb
angry at/with sm for	full of sth	rude of sb to do sth
doing sth	generous to sb	(feel) sorry for sb
annoyed about sth	grateful to sb for sth	satisfied with sth
ashamed of sb/sth	guilty of	scared of
aware of sth	impatient with	shocked at/by sth
bad/good at sth	interested in sth	short of sth
blame on sb/sth	jealous of sb/sth	similar to sth
bored with sth	joke about	sorry about sth
capable of sth	keen on sth	sorry for doing sth
clever at sth	kind of sb to do sth	stupid of sb to do sth
conscious of sth	mean/nice to sb	subject to
crazy about	mean/nice of sb to do	surprised at/by sth
crowded with (people)	sth	suspicious of sb/sth
delighted with sth	patient with	terrified of sb/sth
dependent on sb/sth	(un)pleasant to sb	tired of sth
different from sb/sth	(un)pleasant of sb to	unconscious of
engaged to sb	pleased with sth	unreasonable of sb to do sth
excited about	(im)polite to sb	upset about sth
experienced in	polite of sb to do sth	valid for

famous for sth		popular with		weak in
fed up with sth		proud of sb/sth		worried about
fond of sth/sb		qualified for		

Noun + preposition				
advantage of		cruelty towards/to		pleased with
(there's) an advantage in		damage to		proof of
(have) an advantage over sb		decrease/increase in		reduction in
advice on		demand for		reason for
appeal to sb for sth		difference between		relationship between
aptitude for		two things		(a good) relationship with sb
attack on		disregard for		remedy for
attitude towards/to		fall in		reply to
ban on		hope of		representative of
blame on sb		invitation to		restriction on
care of		involvement with		rise in
cause of		knowledge of		solution to
cheque for		mistake of doing sth		substitute for
compilation on		need for		taste in
congratulations on		notice of		use of sth
connection between		photograph/picture of		waste of

REFERENCES

1. Azar Betty Schrampfer. Understanding and Using English Grammar. 4th ed. Pearson Longman, 2009. 299 p.
2. Esteras Santiago Remancha, Fabre Elena Marco. Professional English In Use ICT (for Computers and the Internet). Cambridge University Press, 2007. 118 с.
3. Evans Virginia, Dooley Jenny, Pontelli Enroco. Career Paths. Software engineering. Express Publishing, 2014. 116 p.
4. Evans Virginia, Dooley Jenny, Wright Stanley. Career Paths. Information technology. Express Publishing, 2011. 122 p.
5. Murphy, R. English grammar in use. Cambridge University Press, 2012. 399 p.
6. Вікіпедія. Вільна енциклопедія [Електронний ресурс]. – Режим доступу: http://www.wikipedia.org
7. [Електронний ресурс]: Режим доступу : http://mini-soft.ru/document/tekst-prehistory
8. [Електронний ресурс]: Режим доступу: http://referatwork.ru/category/literatura/ view/131423_text_a_types_of_computers
9. [Електронний ресурс]: Режим доступу: https://www.theclassroom.com/uses-computers-education-4813487.html
10. [Електронний ресурс]: Режим доступу: https://studfile.net/preview/2892261/page:53/
11. [Електронний ресурс]: Режим доступу: https://www.history.com/news/who-invented-the-internet
12. [Електронний ресурс]: Режим доступу: https://www.checkpoint.com/cyber-hub/cloud-security/what-is-cloud-security/
13. [Електронний ресурс]: Режим доступу: https://www.simplilearn.com/future-of-robotics-article
14. [Електронний ресурс]: Режим доступу: https://ebrary.net/26640/computer_science/security_threats
15. [Електронний ресурс]: Режим доступу: https://test-english.com/explanation/b2/relative-clauses-defining-non-defining/
16. [Електронний ресурс]: Режим доступу: http://www.infosecurity-magazine.com
17. [Електронний ресурс]: Режим доступу: http://www.floridatechonline.com
18. [Електронний ресурс]: Режим доступу: https://www.indeed.com/career-advice/finding-a-job/types-of-computer-programmer
19. [Електронний ресурс]: Режим доступу: https://studycorgi.com/computer-science-and-computational-thinking-teachers/
20. [Електронний ресурс]: Режим доступу: file:///D:/Downloads/nanopdf.com_computer-networks-computing-task-1p66-try-to.pdf

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