МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
Національний авіаційний університет
Факультет аеронавігації, електроніки та телекомунікацій
Кафедра авіаційної англійської мови

МОДУЛЬНА КОНТРОЛЬНА РОБОТА № 1, 2
З дисципліни «Фахова іноземна мова»

Галузь знань: 15 Автоматизація та приладобудування
17 Електроніка та телекомунікації
Спеціальність: 153 Мікро- та наносистемна техніка
171 Електроніка
Освітньо-професійні програми:
Програмно-апаратні засоби криптографічного захисту безпілотних аерокосмічних комплексів
Фізична та біомедична електроніка
Електронні системи
Електронні технології інтернету речей
Комп'ютеризовані засоби моніторингу використання частотного ресурсу

Module work 1

Exercise 1 Read the text and fill the gaps with the most suitable variant below.

A capacitor is one of the main elements of a circuit. It is used **to store** electric energy. A capacitor stores electric energy **provide**d that a voltage **source** is applied to it. The main parts of a capacitor are 1)___. The function of insulators is 2) ___.

There are two common types of capacitors in use nowadays: a fixed capacitor and a variable one. The plates of a fixed capacitor cannot be moved; 3) ___. The plates of a variable capacitor move and change its capacity. The greater the distance between the plates, the less is the capacity of a capacitor. Variable capacitors are commonly used by radiomen; their function is to vary the **frequency** in the circuit. Fixed capacitors are used in telephone and radio work.

Fixed capacitors have insulators produced of paper, ceramics and other materials; variable capacitors have air insulators. Paper capacitors are commonly used in radio and electronics; 4) ___: it may be higher than 1,000 picofarad.

Besides, **electrolyte** capacitors are highly in use. They also have very high capacity: it varies from 0.5 to 2,000 microfarad. Their disadvantage is that they change their **capacity** 5) ___. They can operate without a change only at temperatures not lower than -40" C.

A capacitor stops operating and does not store energy in case it has a trouble. A capacitor with a trouble should be **substituted** by a new one.

A) to isolate the metal plates and in this way to prevent a short
B) metal **plate**s and insulators
C) for his reason its capacity does not change
D) when the temperature changes
E) their advantage is their high capacity

Exercise 2 Find the word in the text to its definition.

1) the maximum amount that something can contain;
2)) a liquid or gel that contains irons and can be decomposed by electrolysis,
3) make available for use; supply;

4) keep or accumulate (something) for future use;

5) a place, person, or thing from which something comes or can be obtained;

6) the rate at which something occurs or is repeated over a particular period of time;

7) a thin, flat sheet or strip of metal or other material, typically one used to join or strengthen things or forming part of a machine;

8) able to be changed or adapted;

Exercise 3 Match the words with their definitions:

1) load	a) a device which interrupts the circuit
2) switch	b) a circuit in which wires are disconnected
3) source	c) a device which provides power
4) fuse	d) a complete circuit with no breaks at all
5) closed circuit	e) a protective device
6) open circuit	f) a device which change energy into sounds
7) short circuit	g) a device which consumes electric power
8) speakers	h) a situation when high amount of current passes through

Exercise 4 Complete each sentence with the verb in the correct form.

1. How long _____ from New York to Denver?
a) is the flight **b)** does the flight **c)** takes the flight **d)** are the flight
2.I'm sorry - we ____got any more chocolate cake.
A) haven't **B)** hasn't **C)**don't **D)** doesn`t
3.The pills sometimes _____ dizziness.
a) cause **b)** causes **c)** are causing **d)** have caused
4. I haven`t seen you since the show._____?
a) Enjoy you **b)** You enjoy it **c)** Did you enjoy it d) Are you being enjoyed
5. Sarah _____ for the school for two years when Elena joined the staff.
a) had been working **b)** was working **c)** worked **d)** is working
6. My house ____ at the moment.
a) will be painted **b)** is being painted **c)** was painted **d)** has been painted
7. Mathew _____his report at the moment.
a) prepares **b)** is preparing **c)** was preparing **d)** is being prepared
8. Frieda`s feet ache. She _____all day today.
a) walked **b)** has been walking **c)** had walked **d)** is being walked
9.Stop _____! I`m trying to concentrate.
a) to talk **b)** talk **c)** talking **d)** having talked
9. She _____ her husband what time he would be home.
a) said **b)** asked **c)** spoke **d)** talked
10. Carol _____ the international news online every morning.
a) is reading **b)** read **c)** reads **d)** was reading
11. Where _____ when you were in Paris last year?
a) did you stay **b)** have you stayed **c)** do you stay **d)** has being stayed
12. _____ the new Dan Brown novel yet?
a) Have you read **b)** Did you read **c)** Did you reading **d)** Were you being read

Exercise 5 Read the text and answer the questions.

The Internet of things is the network of physical devices, home appliances and other items embedded with electronics, software, sensors, actuators, and connectivity which enable these objects to connect and exchange data. Each thing is uniquely identifiable through its embedded computing system but is able to inter-operate within the existing Internet infrastructure.

The Internet of thing allows objects to be sensed or controlled remotely across existing network infrastructure, creating opportunities for more direct integration of the physical world

into compute-based systems, and resulting in improved efficiency, accuracy and economics benefit in addition to reduced human intervention. When Internet of things is augmented with sensors and actuators, the technology becomes an instance of the more general class of cyber-physical systems, which also include technologies such as smart grids, virtual power plants, smart homes, intelligent transportation and smart cities.

The Internet of thing is an upcoming technology that makes use if the internet to control/monitor electronic/mechanical devices, automobiles and other physical devices connected to the Internet. The Internet of thing gives user the ability to control more than digital things easily through a comfortable GUI (Graphical user interface) over the Internet.

1. What is the Internet of things?
2. What do we need to connect some physical devices to the Internet of things?
3. What are the advantages of the Internet of things?
4. Which technologies are included in the Internet of things?
5. What is the main function of the Internet of things?

Розробник: канд.пед.наук, доцент Людмила НЕМЛІЙ

Module work 2

Exercise 1 Read the text and fill the gaps with the most suitable variant below.

Electronics is the **branch** of science which controls electricity in order to **convey** a **signal** using semiconductor materials. These signals represent numbers, letters, sounds, pictures, computer instructions or other information. Radio systems were developed to read and understand the signals and in 1920 radio **broadcasting** started, 1) ___. More sophisticated devices were needed during the Second World War and the invention of radar (Radio Detection and Ranging) represented a **further** step in electronics, 2) ___.

The invention of television in the 1920s was one of the most revolutionary and popular inventions in history and it showed the importance of electronics in certain branches of industry. For the first time in history it became possible 3) ___.

The first computer appeared in 1946. This machine, which could solve a wide range of computing problems, was built over a period of three years by a team of American scientists working at the University of Pennsylvania. It was a **huge** machine weighing almost 50 tons.

The first transistor was assembled in 1957 by a team of scientists working at the Bell Laboratories in the U.S.A, and it was a real coming of age in the science of electronics 4) ___. Transistors are very small, easy to handle, cheap, and they use little power.

The silicon chip - which followed the transistor in the 1960s - can contain up to several thousand transistors 5) ___. It is really **tiny** (usually less than one centimeter square and about half a millimeter thick) and it has **paved the way** to microelectronics.

Electronics has influenced and improved the way information is stored, processed and distributed. Social and personal life has been deeply affected by these inventions and many financial, business, medical, education and political routines have been **speeded up.**

A) to transmit images and sound over wire circuits

B) because it replaced the use of valves

C) making it possible to determine the altitude, direction and speed of moving and fixed objects

D) making it possible for electromagnetic **waves** to travel long distances

E) packed and interconnected in **layers** beneath the surface

Exercise 2 Match the words with their definitions.

1) alloy	a) an alloy formed by mixing copper and zinc
2) steel	b) a good insulator but brittle
3) PVC	c) a metal not suitable as structural material

4) iron	d) a composite material used to build houses
5) ceramic	e) metals containing iron
6)ferrous materials	f) an alloy formed by mixing iron and carbon
7) brass	g) a type of plastic used for insulation
8) concrete	h) a combination of different metals
9)current flow	i) the state or quality of being thick.
10)coated	j) electric current
11)thickness	k) covered by
12)halfway	l) additional substance
13)impurities	m) midway
14) quantity	n) decrease
15)reduce	o) the degree to which a substance or device opposes the passage of an electric current
16) resistance	p) the amount or number of a material

Exercise 3 Read the text about **a storage device** and answer the questions below.

A storage device is any computing hardware that is used for storing, porting and extracting data files and objects. It can hold and store information both temporarily and permanently, and can be internal or external to a computer, server or any similar computing device.

A storage device may also be known as a storage medium or storage media. Storage devices are one of the core components of any computing device. They store virtually all the data and applications on a computer, except hardware firmware. They are available in different form factors depending on the type of underlying device. For example, a standard computer has multiple storage devices including RAM, cache, a hard disk, an optical disk drive and externally connected USB drives.

There are two different types of storage devices: primary storage devices and secondary storage devices.

Primary storage devices: Generally smaller in size, are designed to hold data temporarily and are internal to the computer. They have the fastest data access speed, and include RAM and cache memory.

Secondary storage devices: These usually have large storage capacity, and they store data permanently. They can be both internal and external to the computer, and they include the hard disk, compact disk drive and USB storage device.

1. What is a storage device?
2. What are the two main types of storage devices?
3. What is the difference between them?
4. What is media carrier?
5. What programs can't be saved on storage devices?

Exercise 4 Complete each sentence with the verb or word in the correct form.

1. After he _____an Olympic gold medal he became a professional boxer.
a) had won **b)** have won **c)** was winning **d)** would win.

2.The sales representatives often_____ in the Chalgrove Hotel on the corner.
a) are staying **b)** stays **c)** stay **d)** are being stayed

3. Jamal`s house_____ almost 200 years old.
a) is being **b)** is **c)** are **d)** am

4.Where _____? It`s after midnight!
a) do you go **b)** you goes **c)** are you going **d)** are you being gone

5. _____ milk in his tea, or lemon?
a) Is Ivan preferring **b)** Is Ivan prefers **c)** Does Ivan prefer **d)** Do Ivan prefer

6._____ my keys? I can`t find them anywhere.
a) Have you been seeing **b)** Do you see **c)** Have you seen **d)** Has you seen

7. No, we_____ lunch yet. We`re starving!
a) didn`t have **b)** hadn`t **c)** haven`t had **d)** hasn`t had
8. Before Hamid _____ to Cambridge, he had never seen snow.
a) came **b)** had come **c)** comes **d)** is coming
9. The police _____ the area for two hours and they still hadn`t found any clues.
a) were searching **b)** searched **c)** had been searching **d)** is searching
10. How many times _____ you in London?
a) does your mother visit **b)** has your mother visited **c)** has your mother been visiting **d)** do your mother visit

Розробник: канд.пед.наук, доцент Людмила НЕМЛІЙ