

**СЕМЕСТРОВА КОНТРОЛЬНА РОБОТА**  
**З дисципліни «Фахова іноземна мова»**

**Галузь знань:** 15 Автоматизація та приладобудування

**Спеціальність:** 151 Автоматизація та комп'ютерно-інтегровані технології

**Освітньо-професійні програми:**

Комп'ютеризовані системи управління та автоматика.

Комп'ютерно-інтегровані технологічні процеси і виробництва.

Інформаційні технології та інженерія авіаційних комп'ютерних систем.

**Семестрова контрольна робота**  
**Test Paper**

**variant A**

**I. Match the words with their actions:**

1. To examine something carefully, to make sure that it is correct and good enough means ....
2. To study something carefully, to explain or understand it means ....
3. To move something in an upwards direction, so that it is in a higher position means ....
4. To tell someone something in a way that is easy to follow means ....
5. To advise or make suggestions, particularly when a person has special knowledge about something means ....
6. To fix something that is broken or that does not work correctly means ...
7. To change or check an instrument or tool, to make it more accurate means ...
8. To make minor changes to something, to improve it means ....
9. To take an object away from its current position or place means ...
- 10 To cause someone or something to move towards you, by using your hands means ...
11. To move your body closer to the ground by completely bending your knees means ...
12. To have the lower part of your body on a seat, chair, or the ground, while the upper part of your body is upright means ....
13. To operate a vehicle so that it moves somewhere means ...
14. To move in a forward direction, by placing one foot in front of the other means ...
15. To turn something, such as your body, so that it is in a different position means ....

a) to pull; b) to sit; c) to inspect; d) to explain; e) to repair; f) to calibrate; g) to modify; h) to crouch; i) to drive; j) to remove; k) to twist; l) to walk; m) to lift; n) to recommend; o) to analyze.

## **II. Answer the following questions:**

1. What are some causes of product failure?
2. How can a person cause product failure?
3. What are some types of waves?
4. What are some types of capacitors?
5. What kind of diode is often used in remote controls?

## **III. Make a list of advice from the professional technician on the following question:**

How to make an external evaluation of a malfunctioning device? (not more than 10 sentences)

## **VI. Read the text and answer the questions.**

Beginning with the first, powered flight by the Wright brothers at Kitty Hawk, North Carolina, aircraft design has been steadily evolving. Today's highly efficient, composite constructed aircraft designs are a far cry from the simple, fabric-covered frame of the Wright brothers. Overall, aircraft types can be divided into four classifications: single-engine, prop driven, twin-engine, prop-driven, jet-driven aircraft and specialized aircraft.

Single-engine, prop-driven aircraft are the heart and soul of general aviation. They can be broken down into two categories: high-wing and low-wing. High-wing designs, such as the Cessna 172, feature a wing that is located above the fuselage, providing low stall speeds, strong stability and good visibility below the aircraft. Low-wing designs, such as the Piper Cherokee and Mooney 301, feature a wing that is located below the fuselage, providing better aerodynamics and higher air speeds. Another distinction is the layout of the landing gear--tricycle or tail-dragger. These aircraft can also feature pressurized cabins and turboprop engines, such as the Mooney 301.

Jet aircraft are represented in business aviation, commercial aviation and military aviation. Business jets are generally designed with two engines and carry between six and 15 passengers. They feature high cruise speeds, high operating ceilings and extremely long ranges.

Larger jet aircraft make up the bulk of commercial aviation. Capitalizing on advances in composite materials, aircraft manufacturers are now delivering commercial aircraft that are larger, quieter and more fuel efficient than ever.

Specialized aircraft include gliders, helicopters and V/STOL aircraft. Gliders feature long, thin wings that produce high lift-to-drag ratios, allowing them to glide great distances. Helicopters utilize one or two engines and provide access to areas that are unreachable by traditional aircraft. Vertical and short takeoff

aircraft feature the ability to vector their thrust downward for takeoff and landing, transitioning to a standard configuration for level flight. Examples include the Harrier jet and the Bell/Boeing V-22 Osprey. The Osprey provides vertical takeoff capability, twice the speed of a helicopter and the ability to transport up to 20,000 pounds of troops or equipment.

- a) What are the names of specialized aircraft?
- b) Which types of aircraft have different sizes according to the text?
- c) What are qualities of a modern jet aircraft?

**V. Find the definition for each word.**

1. Narrow-body airliner	a) An aircraft lighter than air that gains its lift through the use of a buoyant gas
2. Sky lantern	b) An airliner which has a cabin width of three to four meters and one passenger aisle
3. Aerostat	c) The smallest narrow-body airliner, seats fewer than twenty passengers
4. Commuter liner	d) A small hot air balloon made of paper, with an opening at the bottom where a small fire is suspended
5. Wide-body airliner	e) A small short-range <u>airliner</u> that is intended to fly passengers from smaller airports to larger ones and designed to fly up to 100 passengers
6. Feederliner	f) An airliner which has a cabin width of five to seven meters and twin passenger aisles

**Семестрова контролна работа**  
**Test Paper**

**Variant B**

**I. Match the words with their actions:**

1. To cause someone or something to move away from you or their current position, by using your hands means ....
2. To put the different parts of something together means ....
3. To use your feet and hands to travel up, down, over or across something means ....
4. To advise or make suggestions, particularly when a person has special knowledge about something means ....
5. To change or check an instrument or tool, to make it more accurate means ....
6. To make minor changes to something, to improve it means ....
7. To take an object away from its current position or place means ....
8. To cause someone or something to move towards you, by using your hands means ....
9. To move your body closer to the ground by completely bending your knees means ....
10. To have the lower part of your body on a seat, chair, or the ground, while the upper part of your body is upright means ....
11. To operate a vehicle so that it moves somewhere means ....
12. To move in a forward direction, by placing one foot in front of the other means ....
13. To turn something, such as your body, so that it is in a different position means ....
14. To move something in an upwards direction, so that it is in a higher position means ...
15. To study something carefully, to explain or understand it means ....

a) *to assemble*; b) *to recommend*; c) *to modify*; d) *to drive*; e) *to analyze*; f) *to calibrate*; g) *to twist*; h) *to climb*; i) *to lift*; j) *to pull*; k) *to crouch*; l) *to remove*; m) *to walk*; n) *to sit*; o) *to push*.

**II. Answer the following questions:**

6. What can cause a power surge?
7. What is the opposite of a device being in operation?
8. What are some types of signals?
9. What is one factor to consider when deciding which capacitor to use?
10. What are the two kinds of fuse? What shape are they?

**III. Make a list of advice from the professional technician on the following question:**

How to replace the blown fuse in the DVD player? (not more than 10 sentences)

## VI. Read the text and answer the questions.

Take a trip to a local airport and drive around the grounds. It is highly likely you will see a large variety of aircraft along the tarmac and in the hangars. It becomes challenging to try and decipher each particular make, model, brand and style of aircraft. There are a few basic categories of aircraft in use today. View the aircraft classifications in much the same way as the animal kingdom's taxonomic breakdowns.

Any major airport sees its share of large commercial jets fly in and out. Among these jets are models produced by Boeing, an American company, and Airbus, a French company. Some of the more commonly seen jets include the Boeing 707, 727, 757 and the big 747. Airbus jets include the a330; a319, a smaller jet much akin to the 707; a321; and the largest commercial jet in operation, the a380.

Look around the airport and you are sure to see small aircraft with two propellers, either mounted on the wings, or on the front or back of the fuselage. These are dual-engine or multi-engine aircraft. Examples of multi-engine aircraft in use today include the Cessna 340, Beech Baron, Cessna 421 and Piper Seneca. You may notice wings on top of the airplane or under the fuselage, with the props and engines. Planes with wings on the top are referred to as "high-wings" and those with them below the fuselage are called "low-wings."

Single-engine aircraft are the most common in use by private aircraft owners and pilots. Among these are the very popular Cessna 172, one of the more common training aircraft at flight schools today. Piper Arrows, CubCrafter Cubs, Super Decathlons and Citabrias are in use today and have single piston driven engines. The range of single-engine planes today is vast, including a new category approved by the FAA called the Light Sport Aircraft. These are two seaters and are driven by a single engine. Examples include the Remos and the Cessna Skycatcher.

- What is the function of a single-engine aircraft mentioned in the article?
- According to the position of the wings on the fuselage what are types of aircraft?
- What are two companies which make large commercial jets?

## V. Find the definition for each word.

1. Kite	a) A small bag made of very thin rudder that becomes larger and rounder when you fill in with air or gas
2. Airship	b) A type of aircraft engine in which a fan driven by a turbine provides extra air to the burner and gives extra thrust
3. Turbofan	c) A plain driven by jet engines
4. Balloon	d) A large aircraft without wings, filled with a gas which is lighter than air, and driven by engines
5. Jet	e) A turbine engine that produces forward movement by turning a propeller
6. Turboprop	f) A toy made of a light frame covered with paper or fabric, that you fly in the air at the end of one or more long strings

## Перелік питань для усної бесіди:

1. Історія авіації. Типи повітряних суден.
2. Частина літака. Частина гелікоптера.
3. Видатні постаті в авіації та космонавтиці.
4. Властивості електричного струму.
5. Струмopровідні матеріали та ізолюючі матеріали.
6. Основні характеристики електричного струму.
7. Типи електричних кіл.
8. Кола послідовного, паралельного та послідовно-паралельного з'єднання.
9. Компоненти електричного кола.
10. Природні джерела електроенергії.
11. Вимірювальна та побутова техніка.
12. Видатні вчені в галузі електрики та магнетизму.
13. Новітні досягнення в галузі електрики та магнетизму.
14. Застосування електроенергії та електроніки на борту літака.
15. Робоче місце інженера.
16. Зародження ери комп'ютерів. Джон фон Ньуман- батько сучасних комп'ютерів.
17. Класифікація цифрових комп'ютерів
18. Апаратне та програмне забезпечення комп'ютера.
19. Інтернет, історія створення.
20. Персональні комп'ютери. Веб сторінка.
21. Бортові комп'ютерні системи.
22. Комп'ютери в дослідженні космосу.
23. Видатні постаті в галузі комп'ютерних наук.
24. Апаратні засоби. Центральний процесор.
25. Пристрої вводу. Пристрої виводу.
26. Пам'ять комп'ютера.
27. Програмне забезпечення. Операційна система.
28. Комп'ютерні віруси та шкідливе програмне забезпечення.
29. Антивірусні програми.
30. Мови програмування.
31. Хмарні технології, їх переваги та недоліки.
32. Новітні досягнення в інформаційних технологіях.
33. Професії, пов'язані зі створенням програмного забезпечення у галузі автоматизації та приладобудування.

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