Aircraft General Knowledge

Question overview:

1 - Sailplane are classified according to their purpose into:

1. Low, middle and high class
2. Low-winged, medium-winged and high-winged
3. School, transitional training, high ability, semi-acrobatic and special
4. Beginner, intermediate - training and sports

2 - They are used as construction materials

1. Wood, glues, fabrics, metal fittings and screws
2. Wood, wicker, copper and aluminum
3. Wood, metal and reinforced plastic
4. Reinforced plastic and fabrics with special adhesives

3 - According to the type of structure, wing constructions can be divided into the following types

1. With belt, semi-flaky and flaky
2. Plastic, metal and wooden
3. Rigid and flat
4. Elastic, semi-elastic and rigid

4 - Picture no. 1 shows the main structural parts of the wing, namely:

1. 1 leading edge, 2 trailing edge, 3 shoulders, 4 plating, 5 rib
2. 1 leading edge, 2 leading edge, 3 rib, 4 shoulder, 5 plating
3. 1 Shoulder, 2 Plating, Leading Edge, 4 Rib, 5 Leading Edge
4. 1 leading edge, 2 leading edge, 3 shoulder, 4 rib, 5 plating

5 - The main shoulder strap is

1. Part of the hull structure that gives strength to the sailplane.
2. The basic part of the wing structure that receives the normal bending moment and the normal

tangential force

3. The part of the wing that receives the loads that occur when the air brakes are removed
4. Part of the wing structure that receives torsional forces.

6 - The torsion shoulder has a role to

1. Provides additional wing stiffness

2. To relieve the main shoulder from the action of the normal moment

3. Gives the hull torsional strength.

4. Accept the force resulting from the bending load in the tangential plane.

7 - Torsion box is

1. The part of the fuselage that receives the twisting moments in flight.

2. The part of the wing that is located next to the wings and receives the loads created during control

3. The part of the wing that is located between the leading edge and the main spar and receives twisting moments

which occur in flight.

4. The part of the wing that connects the ribs

8 - The ribs are part of the wings that have the task of

1. They additionally stiffen the wing when bending.

2. They receive all the loads acting on the wing

3. Form and maintain the shape of the wing airfoil

4. They connect the leading edge and trailing edge of the wing.

10 - According to the type of construction, the hulls of sailplanes are divided into

1. Lattice, box, half-shell and shell-shaped

2. Regular and free forms

3. Metal, wooden and plastic

4. Torsional and rigid

11 - The fuselage is used for:

1. Establishing a connection with the wing and tail surfaces, housing the cabin, flight controls and equipment.

2. Accommodation of all necessary parts of flight equipment

3. Ensuring the proper flight of the glider

4. Ensures connection of wings and tail surfaces.

12 - The role of tail surfaces is:

1. They balance all moments acting on the sailplane

2. They create balancing moments around the center of gravity of the sailplane and enable steering

3. Enable command along the vertical axis of the sailplane

4. Enables command along the longitudinal axis of the sailplane

13 - The trimmer has a role to

1. Reduce the force on the height comand and relieve the pilot's load on the stick

2. Reduce the turning radius of the glider

3. Reduce slip in a sharp turn

4. Facilitates slope control.

14 - The cabin of a sailplane is a part of the structure that serves

1. To accommodate the entire cargo in flight

2. To accommodate pilots, parachutes, instruments, controls and additional equipment.

3. For the accommodation of the pilot and the possibility of good visibility

4. To accommodate pilots and instruments

15 - The classification of instruments according to the principle of operation is based on

1. The speed and accuracy of displaying the read values

2. Using certain physical laws (mechanics and magnetism)

3. The method of displaying (reading) data

4. Principles of construction of the basic mechanism

16 - Classification of instruments according to the basic mechanism are

1. Speed indicators (travel, lift-off) and orientation

2. Electrical and mechanical

3. Electric and gyroscopic

4. Manometric, gyroscopic and spring

17 - Classification of instruments by purpose

1. Electrical and mechanical

2. Flight and mechanical

3. Flight and navigation

4. Flight and static

18 - The instruments belong to the primary group of instruments on the dashboard

1. Which determines the altitude/height and descent of a sailplane

2. Which serves to determine the position of the sailplane

3. Which define the sailing speed

4. Which are the most essential for flight

19 - The basic manometric elements of the instruments are

1. Instruments driven by the venturi effect

2. Lever mechanisms (lever and axles)

3. Elastic chamber (membrane, capsule and bellows)

4. Gear mechanism (gears, levers and hands)

20 - Gyroscope instruments have a mechanism called a gyroscope which is

1. A disc that rotates at high speed and in addition to rotating around its axis has at least one more

degree of freedom of movement.

2. Always driven by the venturi effect

3. Equipped with a very sensitive membrane that reacts to all types of rotation.

4. Must be supplied with electric direct current

21 - Picture no. 2 shows the instrument schematically

1. Altimeter

2. Variometer

3. Speedometer

4. compass

22 - Picture No. 3 shows the instrument schematically

1. Direction indicator

2. Variometer

3. Altimeter

4. Speedometer

23 - Picture no. 4 shows the instrument

1. Barograph

2. Speedometer

3. Gyroscope

4. Altimeter

24 - Picture No. 5 shows the instrument schematically

1. Altimeter

2. Variometer

3. Speedometer

4. Turn indicator

25 - The magnetic compass can be used to follow the actual course only if they are made

necessary corrections for magnetic _____ and compass _____.

1. Magnetic deviation and compass variation

2. Magnetic variation and compass deviation.

3. No corrections are required

4. Magnetic inclination and compass deviation

26 - The property of the compass to give false indications when the sailplane is in a turn is a consequence

of vertical attraction which is called

1. Inclination

2. Declension

3. Deviation

4. Variation

27 - What does the piece of wool glued to the cabin in front of the pilot show?

1. Circulation

2. Skating

3. Deterioration

4. Climbing

28 - What does the instrument with the metal ball on the dashboard show.

1. Climbing

2. Circulation

3. Deterioration

4. Skating

29 - The heart of the pitostatic system is a metal capsule called

1. Venturi tube
2. Gyro disc
3. Pitot tube
4. Aneroid

30 - The actual speed of the glider through the air is called

1. calibrated air speed (CAS – calibrated air speed)
2. read speed (IAS – indicated air speed)
3. road speed (GS - ground speed)
4. speed through the air (TAS - true air speed)

31 - The current height of the glider above the terrain is called

1. standard height
2. absolute height
3. pressure height
4. actual height

32 - An instrument on a sailplane that shows the rate of climb or descent is called

1. Altimeter
2. Speedometer
3. Calimeter
4. Variometer

33 - A pressure recording instrument used to obtain a record of pressure heights is called

1. Calligrapher
2. Tensiograph
3. Barograph
4. Altimeter

34 - In which direction does the magnetic compass indicate the turn when entering a turn from the direction

North?

1. The opposite
2. No turning
3. It depends on the variation

4. By the same

35 - Looking at picture no. 6, determine to which side of the turn the sailplane slides.

1. Internal

2. It fails

3. External

4. Do not slide

36 - Looking at picture no. 7, determine to which side of the turn the sailplane slides.

1. Internal

2. It fails

3. Do not slide

4. External

37 - Instrument GPS for showing the data of use

1. The nearest VOR

2. Earth's magnetism

3. Satellites

4. Radio stations

38 - What data can be shown by GPS

1. Geographical coordinates, height above ground, distance to given point

2. Geographic coordinates, altitude, air humidity

3. Distance from the given point, air humidity, atmospheric pressure

4. Geographic coordinates, atmospheric pressure, distance from the previous waypoint

39 - How many satellites does the GPS need to receive data from at least in order to show geographic data

coordinates

1. three

2. Fri

3. four

4. two

40 - How many satellites does the GPS need to receive data from at least in order to show the altitude

1. one

2. three

3. four

4. Fri