

1. What is the purpose of the use flaps during approach?

- a) To reduce approach speeds
- b) For steeper angle of approach
- c) All the above

Ans.(c)

2. As per Bernoulli's Theorem, in an airflow through a venturi tube -

- a) The mass flow at any point remains constant
- b) The sum of all energies remains constant
- c) The dynamic pressure and static pressure remain same through out

Ans. (b)

3. Coefficient of lift depends on

- a) The shape of the aerofoil
- b) The angle of attack
- c) The shape of aerofoil and angle of attack

Ans. (c)

4. Fowler flaps when deployed

- a) Increase $C_{L\max}$
- b) Increase surface area of the wings
- c) All the above statements are correct

Ans. c

5. Light longitudinal members that reinforce the skin are called

- a) Stringers
- b) Formers
- c) Longer

Ans. (a)

6. In one four stroke cycle of a piston engine the crankshaft revolves through

- a) 360 degrees
- b) 720 degrees
- c) 180 degrees

Ans. (b)

7. Chemically correct air-fuel mixture ratio is

- a) 15:1
- b) 14:1
- c) 8:1

Ans. (a)

8. Propeller efficiency is the

- a) Actual distance a propeller advances in one revolution
- b) Ratio of thrust horsepower to shaft horsepower
- c) Ratio of geometric pitch to effective pitch

Ans. (b)

9. The angle of attack of a fixed pitch propeller

- a) Depends on forward speed only
- b) Depends on forward speed and engine rotational speed
- c) Depends on engine rotational speed only

Ans. (b)

10. When considering the lift and drag forces on an aerofoil section

- a) They are only normal to each other at one angle of attack
- b) They both depend on the pressure distribution on the aerofoil section
- c) They vary linearly

Ans. (b)

11. When an aircraft enters ground effect

- a) The induced angle of attack increases
- b) Lift decreases and drag increases
- c) Lift increases and drag decreases

Ans. (c)

12. The advantage of a turbulent boundary layer over a laminar boundary layer is

- a) Decreases energy
- b) Thinner
- c) Less tendency to separate

Ans. (c)

13. Which of the following is a characteristic of laminar flow boundary layer?

- a) Constant velocity
- b) Constant temperature
- c) No flow normal to the surface

Ans. (c)

14. The angle of attack at the stall

- a) Increases with forward CG
- b) Increases with aft CG
- c) Is not affected by changes in weight

Ans. (c)

15. A slat on an aerofoil

- a) Increases the energy of the boundary layer and decreases the critical angle of attack
- b) Increases the wing leading edge radius by rotating forward and down from its stowed position on the bottom side of the wing leading edge
- c) Increases the energy of the boundary layer and increases the maximum angle of attack

Ans. (c)

16. How does a plain flap increase CL

- a) Increases camber
- b) Increases angle of attack
- c) Changes position of CP

Ans. (a)

17. What is pitch angle?

- a) The angle between the chord line and the horizontal plane
- b) The angle between the longitudinal axis and the horizontal plane
- c) The angle between the chord line and the longitudinal axis

Ans. (b)

18. What is the purpose of trim tabs

- a) To reduce stick forces in manoeuvres
- b) To reduce stick holding forces to zero
- c) To increase control effectiveness

Ans. (b)

19. An aircraft which uses DC as the primary source of power, AC for the instruments may be obtained from

- a) CSDU
- b) Rectifier
- c) Inverter

Ans. (c)

20. Incorrect bonding of the aircraft structure could cause

- a) Corrosion at skin joints
- b) CB trips
- c) Static on the radio

Ans. (c)

21. Hydraulic fluid

- a) Needs no special treatment
- b) Is harmful to eyes and skin
- c) Is harmful to eyes and skin, and is also a fire hazard

Ans. (c)

22. An ASI circuit consists of pressure sensors. The pitot probe measures

- a) Total pressure and static pressure
- b) Dynamic pressure
- c) Total pressure

Ans. (c)

23. If the static vent becomes blocked on an unpressurized a/c, what could you do?

- a) Open the window
- b) Break the VSI glass
- c) Compute altitude mathematically

Ans. (b)

24. A radio altimeter is

- a) Ground based and measures true altitude
- b) Ground based and measures true height
- c) a/c based and measures true height

Ans. (c)

25. The rigidity of a gyro is improved by

- a) Increased RPM and concentrating the mass on the periphery of the rotor
- b) Increased RPM and concentrating the mass at the hub of the rotor
- c) Decreasing RPM and concentrating the mass on the periphery of the rotor

Ans. (a)