

1. If an aircraft maintains a constant radius of turn but the speed is increased –
- a) The bank angle must be increased
 - b) The bank angle must be decreased
 - c) The bank angle will remain constant

Ans. a

2. A servo tab is one that is directly operated by –
- a) The primary controls
 - b) Auxiliary controls
 - c) Both (1) and (2) above

Ans. a

3. Most of the electrical devices installed in a/c electrical system are connected in parallel, the reason is to –
- a) Allow the units to operate independently of each other
 - b) Decrease the total resistance of the circuit
 - c) Both (1) and (2) above

Ans. c

4. During a flight at normal cruising speed one magneto of a 'dual ignition' system failed completely. This would normally cause –
- a) Excessive vibration of engine
 - b) Considerable extra load to be placed on the other magneto
 - c) A power loss of approximately 3 % at normal cruise

Ans. c

5. The type of flap which extends backwards from the trailing edge as it is lowered, is –
- a) A split flap
 - b) A Krueger flap
 - c) A Fowler flap

Ans. c

6. When an aircraft's forward CG limit is exceeded, it will affect the flight characteristics of the aircraft by producing –
- a) Very light elevator control forces which make it easy to inadvertently over stress the aircraft
 - b) Improved performance since it reduces the induced drag
 - c) Higher stalling speeds and more longitudinal stability

Ans. c

7. The power delivered to the propeller for useful work is known as –
- a) Brake horse power
 - b) Indicated horse power
 - c) Friction less power

Ans. a

8. When starting a turbojet engine –
- a) A hot start is indicated if the exhaust gas temperature exceeds specified limits
 - b) An excessively lean mixture is likely to cause a hot start
 - c) The engine should start between 60 to 80 seconds after the fuel shut-off lever is opened

Ans. a

9. What component of pressurization system prevents the cabin altitude from becoming higher than airplane altitude?
- a) Cabin rate of descent control
 - b) Negative pressure relief valve
 - c) Supercharger overspeed valve

Ans. b

10. A wing with high aspect ratio will generate –
- a) Less lift and less induced drag
 - b) More lift and more induced drag
 - c) More lift and less induced drag

Ans. c

11. Which of the following is the ultimate limiting factor of turbojet engine operation?

- a) Compressor inlet air temperature
- b) Compressor outlet air temperature
- c) Turbine inlet temperature

Ans. c

12. As airspeed is increased in level flight above maximum L/D speed, total drag of an airplane –

- a) Decrease due to decreased induced drag
- b) Increases due to increased induced drag
- c) Increases due to increased parasite drag

Ans. c

13. Normally the C of G movement is computed –

- a) Laterally
- b) Vertically
- c) Fore and aft along the longitudinal axis

Ans. c

14. The propeller governor controls the –

- a) Oil to and from the pitch changing mechanism
- b) Relief valve in the accumulator assemblies
- c) Spring tension on the boost pump speeder spring

Ans. a

15. How does the aerodynamic twisting force affect operating propeller blades?

- a) It tends to bend the blades opposite the direction of rotation
- b) It tends to turn the blades to a high blade angle
- c) It tends to bend the blades forward

Ans. b

16. How does a dual axial flow compressor improve the efficiency of a turbojet engine?

- a) More turbine wheels can be used
- b) Combustion chamber temperatures are reduced
- c) Higher compression ratios can be obtained

Ans. c

17. Which of the following is most likely to cause thermal runaway in the Ni-Cd battery?

- a) A high thermal resistance condition
- b) Excessive current draw from the battery
- c) Constant current charging of the battery to more than 100% of its capacity

Ans. b

18. A CSD unit that is disconnected in flight, due to a malfunction such as over temperature, may be reconnected –

- a) Automatically if the temperature falls below into the normal operating range
- b) By the flight crew when the temperature comes to the operating range
- c) Only on ground

Ans. c

19. During flight, an aircraft with a fixed pitch propeller suffers a drop in RPM at a fixed throttle setting. Following this, the engine begins to run roughly. In determining the cause, the pilot should first suspect –

- a) Fuel starvation
- b) A faulty tachometer
- c) Carburetor icing

Ans. c

20. If altitude density ratio, CL max and wing area are held constant, stall speed (V_S) of an aeroplane –

- a) Increases with the decreases of gross weight of the aeroplane
- b) Decreases with the increases of gross weight of the aeroplane
- c) Increases with the increases of gross weight of the aeroplane

Ans. c