

Question block created by wizard

This exam contains 24 questions.

1. Newtons second law applies to a mass. Which mass in a gas turbine engine does it apply to?

- (a) Mass of the air and fuel.
- o (b) Mass of the fuel.
- o (c) Mass of the engine.

If choice a is selected set score to 1.

2. What is the correct working cycle of a gas turbine engine?

- o (a) Induction - combustion - compression - exhaust
- (b) Induction - compression - combustion - exhaust
- o (c) Exhaust - combustion - compression - induction

If choice b is selected set score to 1.

3. What do they also use for propulsion of modern aircraft?

- o (a) Turbojets and pulsjets.
- o (b) Ramjets.
- (c) None of these.

If choice c is selected set score to 1.

4. What are the main advantages of a turbofan compared to a turbojet?

- (a) low noise level with low fuel consumption.
- o (b) Good engine acceleration and compact engine design
- o (c) Lightweight engine with good power output.

If choice a is selected set score to 1.

5. The fuel flow transmitter (FFT) uses electromagnetic pulses...

- o (a) to control the amount of fuel sent to the fuel control unit.
- (b) to measure the rate of fuel flow.
- o (c) generated by the fuel booster pumps.

If choice b is selected set score to 1.

- 6.** The fuel control is an engine driven accessory. It can operate by mechanical, hydraulic, electrical, or pneumatic forces in various combinations.

What is the purpose of the fuel control?

- (a) Control the fuel flow from the aircraft fuel booster pumps.
- (b) Maintain a correct combustion air-to fuel mixture.
- (c) Limit the amount of fuel to the combustion chamber.

If choice b is selected set score to 1.

- 7.** The ECU (on a reciprocating engine) is assigned to cylinder(s). This assignment is to:

- (a) to a pair of cylinders
- (b) to all cylinders of that engine.
- (c) one cylinder.

If choice a is selected set score to 1.

- 8.** The EGT Harness connects to a terminal block.

From the terminal block, the EGT signal is sent to a...

- (a) display.
- (b) voltage generator, to increase the temperature.
- (c) resistor to decrease the actual temperature otherwise it can be too high.

If choice a is selected set score to 1.

- 9.** Which indication component is using a permanent magnet with three coil assemblies?

- (a) The engine tachometer system.
- (b) The fuel pump pressure indication system.
- (c) The airborne vibration system signal conditioner pick up points.

If choice a is selected set score to 1.

- 10.** Advancing the power levers causes...

- (a) engine thrust and EPR indicator to stabilize then decrease.
- (b) engine thrust and EPR indicator to rise.
- (c) actual engine thrust to decrease and EPR indicator to rise.

If choice b is selected set score to 1.

11. The two primary Electronic Flight Instruments (EFIS) displays are....

- (a) ECAM and EICAS.
- (b) EIS and E/WD.
- (c) PFD and ND.

If choice c is selected set score to 1.

12. On a high bypass the Engine Pressure Ratio (EPR) is measured across the....

- (a) fan.
- (b) HP compressor.
- (c) HP turbine.

If choice a is selected set score to 1.

13. On a high bypass the Engine Pressure Ratio (EPR) uses P1 and PF probes. How many?

- (a) There are 22 P1 and 1 PF probes.
- (b) There are 1 P1 and 22 PF probes.
- (c) There are 1 P1 and 1 PF probes.

If choice b is selected set score to 1.

14. The N1 rpm is the speed of the low pressure shaft.

It is read in the unit....

- (a) rpm.
- (b) percent.
- (c) m/s.

If choice b is selected set score to 1.

15. Hydraulic actuators on a modern gasturbine are powered by....

- (a) skydrol under pressure.
- (b) air pressure.
- (c) fuel pressure.

If choice c is selected set score to 1.

16. A manifold pressure gauge on a reciprocating engine is designed to....

- (a) indicate absolute pressure in the intake manifold.
- o (b) maintain constant pressure in the intake manifold.
- o (c) indicate differential pressure between the intake manifold and atmospheric pressure.

If choice a is selected set score to 1.

17. Engine torque is used to indicate...

- o (a) lateral twist on the engine mouths.
- (b) the power that is developed by a turbo-propeller engine.
- o (c) the power that is developed by a turbo fan engine.

If choice b is selected set score to 1.

18. A common method of coupling the electrical starter drive to the engine is by means of a...

- o (a) ratchet on the drive gearbox.
- (b) jaw on the starter.
- o (c) direct shaft to high speed shaft.

If choice b is selected set score to 1.

19. The engine starting system supplies the force to turn the engine N2 or N3 compressor on the ground by...

- (a) rotating the gearbox that is connected to the high speed shaft.
- o (b) supplying air to the fan.
- o (c) rotating the gearbox that is connected to the low speed shaft.

If choice a is selected set score to 1.

20. A cartridge starter was mostly used in....

- o (a) turbofan aircraft engines.
- (b) reciprocating aircraft engines.
- o (c) turbojet aircraft engines.

If choice b is selected set score to 1.

21. The high tension distribution system conducts the high voltage dc from the ignition exciters to the...

- (a) igniter plugs.
- o (b) compressor case
- o (c) condenser.

If choice a is selected set score to 1.

22. Modern gasturbines have....

- o (a) 2 ignition exciters and 4 igniters.
- o (b) 1 ignition exciters and 2 igniters.
- (c) 2 ignition exciters and 2 igniters.

If choice c is selected set score to 1.

23. Which of the following would cause rejection of a spark plug without a doubt?

- (a) Insulator tip cracked.
- o (b) Carbon fouling of the electrode and insulator.
- o (c) Lead fouling of the electrode and insulator.

If choice a is selected set score to 1.

24. "Ignition system voltage is dangerously high. Ignition switch must be in off position before removal of any ignition component."

Why?

- o (a) This permits cooling of the high tension lead.
- o (b) In the off position the cooling will continue. This will prevent hot components.
- o (c) To ensure complete dissipation of energy from the system

Anything else set score to 1.

***If assessment score is 75% to 100% Pass
If assessment score is 0% to 74% Fail***