

Previous Year QuEST Global Technical Questions

Q1. Shot-peening is a process used for introducing a

- a. compressive surface layer**
- b. Use a hardening coating to improve metal properties**
- c. Reduce metal surface imperfection by machining**
- d. Is the process of coating with a anti-corrosive paint**

Q2. The Oil system in Turbofan engine has the following roles

- a. It cools the bearing and spline**
- b. It lubricates bearings and spline**
- c. Both 1 and 2**
- d. None of these**

Q3. Variable geometry inlet duct are used on supersonic aircrafts for

- a. Slowing the airflow to subsonic speeds at the face of the compressor and increase static pressure**
- b .accelerating the airflow, to supersonic speeds, during cruising flisht**
- c. Increasing the airflow, at outlet end of compressor**
- d. None of these**

Q4. What are the metal removal techniques

- a. Ultra High Pressure jet Machining**
- b. Electro Discharge Machining**
- c. electtro Chemical Machining**

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Q5. Why do we need to do Inspection

- 1.To determine whether the component is serviceable**
- 2.To restore Fit,Form and Function of the component**
- 3.To determine whether the component is repairable**

- a.Option 1 and 2**
- b.Option 1 and 3**
- c.Option 2 and 3**
- d All the above**

Q6. Full Authority Digital Engine Control (FADEC)system

- a. Decrease the Fault detection capability of the engine**
- b. Has no effect on Fault detection capability of the engine**
- c. Increase the fault detection capability of the engine**
- d. None of the above**

Q7. The surge margin of Centrifugal compressor is----than that of an Axial compressor

- a.More**
- b.Less**
- c.Equal**
- d.Not adequate**

Q8. In normal flight conditions, an increase in aircraft speed

- a. Cause the nose of the aircraft to drop**
- b. Cause the nose of the aircraft to lift**
- c. The nose remains in the same position**

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d. None of these

Q9. With increasing altitude pressure decrease and

- a. Temperature decreases at the same rate as pressure reduces**
- b. Temperature decreases but at a lower rate than**
- c. Temperature remains constant to 8000 ft**
- d. None of these**

Q10. Longitudinal stability is given by

- a. The fin**
- b. the wing dihedral**
- c. the horizontal tail plane**
- d. None of the above**

Q11. What are the types of rivets that are used in Aerospace Industry

- a. Solid rivet**
- b. Hollow rivet**
- c. Blind rivet**

- a. Option 1 and 2**
- b. Option 1 and 3**
- c. Option 2 and 3**
- d. All the above**

Q12. During a glide the following forces act on an aircraft

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- a.lift,weight,thrust**
- b.Lift.drag,weight**
- c.Lift and weight only**
- d.None of the these**

Q13. Which of the following properties makes titanium ideal for fan blades

- a. It is very light**
- b. It is very leap**
- c. It is silver coloured**
- d. all the above**

Q14. What are the metal joining techniques

- a. Welding**
- b. Brazing**
- c. Thermal spray Technique**
- d. Mechanical Fastner**

- a. Option 1,2 and 3**
- b. Option 2,3 and 4**
- c. Option 1,2 and 4**
- d. All the above**

Q15. The Thermal Expansion of the Turbine casting is controlled throughout the cycle to

- a. Maintain optimum clearance between Blade tip and case**
- b. To relieve the stresses developed in the casing**
- c. To support Engine Health Monitoring**

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d. To reduce Turbine speed

Q16. The component used for transferring axial thrust from a rotating component to a static component is

- a. Roller Bearing**
- b. Thrust Bearing**
- c. Ball Bearing**
- d. Both 2 and 3 above**

Q17. The boundary layer is

- a. Thicker at the leading edge**
- b. Thickest at the trailing edge**
- c. Constant thickness from leading to trailing edges**
- d. None of the above**

Q16. Additional thrust is required for

- a. Landing**
- b. Acceleration and climb**
- c. Decelerating aircraft**
- d. Cruise**

Q18. With increase in pressure ratio the specific fuel consumption

- a. Increase**
- b. Decrease**
- c. remains constant**

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d. None of the above

Q19. An aircraft which is longitudinally stable, will tend to return to level flight after a movement about which axis

- a. Pitch**
- b. Roll**
- c. Yaw**
- d. All the above**

Q20. To ensure component integrity, types of Inspection Techniques used is

- a. Visual inspection**
- b. Dimensional inspection**
- c. Non destructive Inspection**
- d. All the of the above**

Q21. Rotating stall, surge and flutter can be overcome by the

- a. Variable stator Vanes**
- b. Introducing inter-stage bleed**
- c. Both the above**
- d. None of the above**

Q22. Radiographic examination is performed

- 1. To identify the cracks**
- 2. To identify internal defects component**
- 3. To identify the defects in magnetic material**

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- a.Option 1 and 2
- b.Option 1 and 3
- c.Option 2 and 3
- d. all the above

Q23. Specific Fuel consumption (SFC) is ratio of

- a. Fuel Flow rate/Thrust
- b.Thrust/Fuel/Flow rate
- c.Thrust/Air mass flow rate
- d. None of the above