

**Module 15, GAS TURBINE ENGINE.****15.22, Engine Storage and Preservation.**

Q. 1. Fuel system inhibiting oil is.

- A. mineral oil.
- B. light anti-freeze oil.
- C. kerosene.

Ans.- mineral oil.

Explanation. C.A.I.Ps EL/3-14 refers to mineral oil.

Q. 2. After placing an engine in an M.V.P envelope.

- A. check humidity indicator after 12 hours.
- B. check humidity indicator after 24 hours.
- C. check humidity indicator after 48 hours.

Ans.- check humidity indicator after 24 hours.

Explanation. Old C.A.I.Ps leaflet EL/3-14 refers.

Q. 3. On a vapour proof cocoon, there is a.

- A. temperature indicator.
- B. moisture indicator.
- C. humidifier.

Ans.- moisture indicator.

Explanation. C.A.I.Ps EL/3-14 refers.

Q. 4. When an installed engine is not to be used for a period of up to 7 days.

- A. it is necessary to inhibit the engine.
- B. it is only necessary to blank off all apertures.
- C. run the engine as prescribed in the Flight Manual.

Ans.- it is only necessary to blank off all apertures.

Explanation. C.A.I.Ps EL/3-14.

Q. 5. Installed engines must be re-preserved after preservation at least every.

- A. six weeks.
- B. six days.
- C. six months.

Ans.- six months.

Explanation. C.A.I.Ps EL/3-14.

Q. 6. On storage of an engine, the desiccant is.

- A. looked at within 24 hrs if its blue its OK.
- B. looked at 24 hrs later if its blue its OK.
- C. looked at 24 hrs later if blue it should be replaced.

Ans.- looked at 24 hrs later if its blue its OK.

Explanation. C.A.I.P's EL/3-14 (Engine Storage) refers. Note that answer a is partly correct, but you must also inspect the MVP envelope for damage or deterioration.

Q. 7. After placing an engine into storage, details would be recorded in.

- A. Technical Log.
- B. Engine log book.
- C. Aircraft log book.

Ans.- Engine log book.

Explanation. All engines have a log book.

Q. 8. When storing an engine the fuel system is to be inhibited. How is this done?.

- A. Remove plugs rotate engine then add oil.
- B. Rotate engine whilst adding oil then remove plugs.
- C. Add oil leaving plugs in.

Ans.- Remove plugs rotate engine then add oil.

Explanation. C.A.I.P's EL 3-14 (Engine storage) refers. This is a piston engine question but has been reported as being in a module 15 exam.

Q. 9. An engine in storage for 7 days should.

- A. have storage oil placed in engine.
- B. be run twice in that week.
- C. be fitted with covers and blanks and apertures covered.

Ans.- be fitted with covers and blanks and apertures covered.

Explanation. Old C.A.I.P's EL/3-4 refers.

Q. 10. On a (VP) cocoon bag, if the humidity indicator turns pink/lilac.

- A. desiccant is effective and does not need changing.
- B. desiccant is ineffective and needs changing.
- C. desiccant is changed weekly.

Ans.- desiccant is ineffective and needs changing.

Explanation. C.A.I.P's EL/3-4 refers.

Q. 11. To inhibit the fuel system of an installed engine.

- A. pump oil into the engine when stationary.
- B. dry motor the engine.
- C. remove the ignitor plugs.

Ans.- dry motor the engine.

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Explanation. C.A.I.P's EL 3-10 details this procedure. It is done by dry motoring the engine with a header tank of inhibiting oil connected to the inlet of the L.P fuel pump.

Q. 12. When is the humidity indicator checked on a preserved engine?.

- A. 1 Month.
- B. 1 Year.
- C. 6 Months.

Ans.- 1 Month.

Explanation. C.A.A.I.Ps leaflet 7-4 states 'approximately monthly intervals'. If the desiccant is pink the envelope must be opened, the desiccant replaced and the envelope resealed.

Q. 13. With an engine in storage, desiccant is used.

- A. as an insecticide.
- B. as a corrosion inhibitor.
- C. to remove moisture from the air.

Ans.- to remove moisture from the air.

Explanation. A&C Mechanics Handbook EA-AC65 page 389 refers.

Q. 14. Small cuts in a M.V.P. engine storage bag can be repaired.

- A. with adhesive PVC tape.
- B. by vulcanising.
- C. by replacing M.V.P.

Ans.- with adhesive PVC tape.

Explanation. NIL.

Q. 15. When removing an engine for long-term storage, bleed valves should be.

- A. removed.
- B. locked closed.
- C. open but blanked.

Ans.- open but blanked.

Explanation. NIL.

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Q. 1. The types of water present in aviation fuel are.

- A. free and entrained both harmful.
- B. free that is harmful and entrained that is harmless.

- C. free that is harmless and entrained that is harmful.

Ans.- free and entrained both harmful.

Explanation. NIL.

Q. 2. Oil pressure and scavenge pumps are usually.

- A. spur gear pumps.
- B. multi-plunger pumps.
- C. diaphragm pumps.

Ans.- spur gear pumps.

Explanation. NIL.

Q. 3. The purpose of a pressure filter in a lubrication system is to.

- A. protect the pressure pump.
- B. protect the oil jets.
- C. protect the scavenge pumps.

Ans.- protect the oil jets.

Explanation. NIL.

Q. 4. a curvical coupling.

- A. converts rotary motion to reciprocating motion.
- B. absorbs misalignment between the driving and driven shafts.
- C. accurately aligns the driving and the driven shafts.

Ans.- accurately aligns the driving and the driven shafts.

Explanation. NIL.

Q. 5. Feeders are.

- A. conduits used to carry electrical cable.
- B. fluid supply hoses.
- C. heavy duty electrical generator cables.

Ans.- heavy duty electrical generator cables.

Explanation. NIL.

Q. 6. High air humidity will.

- A. have no affect on thrust.
- B. reduce the thrust output.
- C. increase the thrust output.

Ans.- reduce the thrust output.

Explanation. NIL.

Q. 7. C.I.T sensor is made up of.

- A. Iron-constantan.
- B. Chromel-alumel.
- C. Platinum-rhodium.

Ans.- Platinum-rhodium.

Explanation. NIL.

<http://www.megatron.co.il/Thermocouple.htm>

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Q. 8. What is the maximum value of pressure with reference to a jet engine?.

- A. 1 Bar.
- B. 1 Kg/cm.
- C. 1 Atmospheric Pressure.

Ans.- 1 Atmospheric Pressure.

Explanation. 1 Atm. = 1.013 Bar.

Q. 9. The hottest casing is the.

- A. H.PT.
- B. combustion chamber.
- C. L.PT.

Ans.- H.PT.

Explanation. NIL.

Q. 10. Centrifugal compressor maximum tip speed is.

- A. 0.8 Mach.
- B. 1.2 Mach.
- C. 0.5 Mach.

Ans.- 1.2 Mach.

Explanation. NIL.

Q. 11. What type of oil is used in a gas turbine engine?.

- A. Synthetic.
- B. Phosphate Ester.
- C. Mineral.

Ans.- Synthetic.

Explanation. Synthetic.