

**Sem. 6th Finance Account & Audit
Sub : Turbo Propeller & Turbo Jet Engine-II**

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Multiple Choice Questions. All Questions are compulsory. (10x1=10)

Q.1 The thermodynamic process in combustion chamber is

- a) Isothermal
- b) Adiabatic
- c) Isobaric
- d) Isochoric

Q.2 Which of the following statement is true?

- a) Mass flow rates of gases at engine inlet and exit are same
- b) The pressure at inlet and exit of engine are ambient pressures
- c) Both of the mentioned
- d) None of the mentioned

Q.3 What is the fuel used in airplanes.

- a) Kerosene
- b) Petrol
- c) Diesel
- d) ATF

Q.4 Water is injected into the engine to.

- a) Cool the engine
- b) Stop the engine

Q.5 c) To increase thrust d) None of the above
Thrust reversal is used in airplanes during _____.

- a) During Cruise
- b) After Landing
- c) Before Climbing
- d) None of the above

Q.6 Why are lubricants needed in engine?

- a) To increase efficiency
- b) To decrease efficiency

Q.7 Deicing system works to

- a) Remove accumulated snow and ice
- b) Prevent formation of ice
- c) Get rid of moisture
- d) Formation of ice

Q.8 The process in after burner taking place is

- a) Expansion of gases
- b) Reheat
- c) Turbine power
- d) Intercooling

Q.9 Gas turbine is started by

- a) Automatically
- b) Spark ignition
- c) Explosion
- d) None of the above

Q.10 The blade cooling in turbine is done by

- a) Water cooling
- b) Fresh Air
- c) Bleed Air
- d) Exhaust gas

Section-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 What is a gas turbine engine?

- Q.12 What is meant by rigging?
- Q.13 What is the role of lubricant in an engine?
- Q.14 What is engine trimming?
- Q.15 Where is gear system located?
- Q.16 What is special about PIGA engine?
- Q.17 what is power assessment?
- Q.18 which engine does not have rotating parts?
- Q.19 What is the purpose of guide vanes in compressor?
- Q.20 The combustion take place at constant _____ in Gas turbine engine.

Section-C

Note: Short answer type Question. Attempt any Twelve questions out of Fifteen Questions. (12x5=60)

- Q.21 Explain one type of Thrust Augmentation System.
- Q.22 What is power assessment procedure?
- Q.23 What is the role of thrust reversal system?
- Q.24 Explain the rigging procedure of power control.
- Q.25 Explain the role of condition monitoring.
- Q.26 Explain the effect of sound pollution due to aircrafts on humans.
- Q.27 Write down the requirements of power booster.
- Q.28 Briefly discuss fuel system of PIGA engine.
- Q.29 Explain the various controls in gas turbine engine.
- Q.30 What are the inspection steps in turbine?
- Q.31 What are the components of starting system?

(3)

187762/147762

- Q.32 What are different thrust augmentation methods?
- Q.33 What do you mean by ground running?
- Q.34 How is dressing of gas turbine engine done?
- Q.35 What is the function of icing and deicing system?

Section-D

- Note:** Long answer questions. Attempt any two question out of three Questions. (2x10=20)
- Q.36 Explain the detail the construction features of P&W Piga Series Engine.
 - Q.37 Explain the need for overhaul and maintenance of engine and step by process of how it's done.
 - Q.38 Explain the dressing, preservation and depreservation of a Gas turbine Engine.

(4)

187762/147762