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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

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- c) To increase thrust d) None of the above
- Q.5 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?

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- 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?

- 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.