

- Q.27 Write the functions of cooling system in I.C. engine. (CO4)
- Q.28 What are the functions of a lubricant ? (CO4)
- Q.29 Define the following : (CO5)
- a) mechanical efficiency b) thermal efficiency
c) volumetric efficiency
- Q.30 Methods of reducing pollution in IC engines. (CO5)
- Q.31 Write a short note on heat balance sheet. (CO5)
- Q.32 Discuss merit and demerits of a surface condenser and jet condenser. (CO6)
- Q.33 Give the advantages of gas turbine over steam turbine. (CO6)
- Q.34 What are the advantages of closed cycle gas turbine over open cycle gas turbines? (CO7)
- Q.35 Write applications and limitations of gas turbine? (CO7)

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Describe the comparison between four stroke and two stroke cycle engine. (CO1)
- Q.37 Explain the construction and working of a fuel injection pump with neat sketch. (CO3)
- Q.38 Explain in detail lubrication system of I.C. engine. (CO4)
- (**Note:** Course outcome/CO is for office use only)

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Mechanical Subject:- Thermodynamics - II

Time : 3Hrs.

M.M. : 100

SECTION-A

- Note:** Multiple choice questions. All questions are compulsory (10x1=10)
- Q.1 Cycle on which petrol engine works (CO1)
- a) otto cycle b) diesel cycle
c) both a and b d) none of the above
- Q.2 A 50cc moped has following parameters as 50 cc (CO5)
- a) fuel tank capacity b) swept volume
c) power d) efficiency
- Q.3 Contact breaker points are usually made of (CO2)
- a) tungsten b) nickel
c) chromium d) none of these
- Q.4 Lean air mixture is required for (CO2)
- a) Starting b) idling
c) cruising d) acceleration
- Q.5 In diesel engine, fuel is ignited by _____. (CO3)
- a) battery
b) heat of compressed air
c) spark plug

- d) magneto
- Q.6 The compression ratio for a practical diesel engine lies in the range of (CO1)
- a) 10-16 b) 22-25
c) 16-22 d) 25-28
- Q.7 Which is the component of a forced circulation cooling system? (CO4)
- a) Thermostat b) fan and water pump
c) radiator d) all of these
- Q.8 Stroke of an I.C. engine is equals to (CO1)
- a) half the crank radius b) the crank radius
c) twice the crank radius d) none of these
- Q.9 Heat is supplied to steam during expansion process is equal to (CO6)
- a) change in kinetic energy
b) zero
c) work done
d) heat drop
- Q.10 Aram jet engine has (CO7)
- a) single compressor unit
b) double compressor unit
c) no compressor unit
d) Either a or b

SECTION-B

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

- Q.11 The two main rocket propellants used are (CO7)

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- Q.12 Gas turbines have lower efficiency than steam turbines. (True/False) (Co7)
- Q.13 Surface condenser should be air tight. (True/False) (CO6)
- Q.14 Define condenser efficiency. (CO6)
- Q.15 B.H.P is determined by _____. (CO5)
- Q.16 Name two alternate fuels. (CO5)
- Q.17 Petroil lubrication system is used in _____ engines. (two stroke / four stroke) (CO4)
- Q.18 The magneto ignition system is employed in _____. (CO2)
- Q.19 Define Bore. (CO1)
- Q.20 What is crank throw. (CO1)

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Explain the terms; (CO1)
- a) Compression ratio b) Piston speed
c) Swept volume
- Q.22 Explain actual P V diagram for two stroke petrol engine. (CO2)
- Q.23 Which four strokes are required to complete the operation of the four stroke engine? (CO1)
- Q.24 Explain M.P.F.I. (CO3)
- Q.25 Write a short note on fuel injector. (CO3)
- Q.26 What are the requirements of fuel injection system is diesel engine? (CO3)

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