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Roll No.

4th Sem.

Branch : Mechanical Engg.

Sub. : Thermodynamics-II

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (6x1=6)

- Q.1 A spark compression ignition engine works on
a) Otto Cycle b) Diesel Cycle
c) Carnot Cycle d) Rankine Cycle
- Q.2 Rich air fuel mixture is required for
a) Better mileage b) Idling
c) Cruising d) None of the above
- Q.3 For maximum economy, fuel ratio is
a) 15:1 b) 5:1
c) 6:1 d) 15:2
- Q.4 In water cooling system thermostate works at _____ degree centigrade.
a) 160c b) 80c
c) 40c d) 25c

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Q.5 The morse test is used for assessing the performance of

- a) Steam turbines b) IC engine
c) Compressor d) All of the above

Q.6 If intake air temperature of IC engine increases, its efficiency will

- a) Increase b) Decrease
c) Remain same d) Depend on other factors

SECTION-B

Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 Define the compression ratio.
- Q.8 Write full form of MPFI.
- Q.9 Closed cycle gas turbine uses hot air as the working medium. (True/False)
- Q.10 Brake test is used to measure _____ of an I.C. engine.
- Q.11 Define Jet propulsion.
- Q.12 Define thermal efficiency.

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SECTION-C

Note: Short answer type Questions. Attempt any eight questions out of ten Questions. (8x4=32)

- Q.13 Explain in brief:
- a) Governing at steam Turbine
 - b) Cooling Towers
- Q.14 What is steam turbine? Mention the main parts of steam turbine.
- Q.15 Explain the essential properties of a good lubricant.
- Q.16 Write notes on the following : a) Air fuel ratio b) Rich mixture c) Lean mixture
- Q.17 Explain the elements of condensing plant in brief?
- Q.18 Write a short note on close cycle gas turbine.
- Q.19 Describe the working of fuel feed pump with sketch.
- Q.20 Distinguish between internal and external combustion engine.
- Q.21 Write a short note on Bharat Stage emission standards VI (BS VI).
- Q.22 What is supercharging? Example its importance in automobile.

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SECTION-D

Note: Long answer questions. Attempt any two questions out of three Questions. (2x8=16)

- Q.23 Compare the petrol engine and diesel engine.
- Q.24 What is morse test? Explain the procedure to find out IP of a multi cylinders IC engine without using an indicator.
- Q.25 Write a short note on :-
- i) Lubrication system of IC Engine
 - ii) Surface & Jet condenser

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