

S. B. Roll. No.....

THERMODYNAMICS-II
5th Exam/Mech./6953 /Dec'22
(For 2018 Batch Onwards)

Duration: 3Hrs.

M.Marks:75

SECTION-A

Q1. Do as directed.

15x1=15

- a. Spark ignition engines are also called _____ Engines.
- b. Piston rings are usually made up of _____
- c. Piston speed is equal to _____
- d. Firing order of four cylinder engine is _____
- e. Compression ratio of diesel engines lies in the range of _____
- f. Diesel engines are also called _____ Engines.
- g. Ratio of BHP to IHP is called _____
- h. Indicator method is used to determine _____
- i. Compounding of steam turbine is done to _____
- j. Diffuser system in ram jet engine is used to _____
- k. Thermosyphon system of cooling is better than pump circulation system (True/False)
- l. During idling an engine needs rich mixture (True/False)
- m. Thermal efficiency of two stroke engine is more than four stroke engine (True/False)
- n. Constant volume cycle is also called diesel cycle (True/False)
- o. Rockets can operate in vacuum (True/False)

SECTION-B

Q2. Attempt any six questions.

6x5=30

- i. Explain piston displacement and compression ratio.
- ii. Define valve lead, valve lag and valve overlap.
- iii. Compare two stroke and four stroke engines.
- iv. Explain working of mechanical fuel pump.
- v. What are the functions of lubrication in IC engines?
- vi. What is crank case ventilation?
- vii. Compare impulse and reaction turbines.
- viii. What are applications of gas turbines?
- ix. What is ram jet engine?

SECTION-C

Q3. Attempt any three questions.

3x10=30

- a. Explain working of four stroke diesel engine; draw its theoretical and actual PV diagrams.
- b. Discuss with the help of neat sketch the working of battery ignition system.
- c. Why do we cool IC engines? Explain forced circulation type water cooling system.
- d. Explain construction and working of single stage impulse turbine.
- e. Discuss various methods of governing steam turbines.