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DVOC (Level 4)

Sem 2nd / Refrigeration & Air Conditioning

Subject : Basics of Thermodynamics

Time : 2 Hrs. M.M. : 50

SECTION-A

Note: Very short answer type questions . Attempt all ten questions (10x1=10)

Q.1 Define compression ratio.

Q.2 What is BDC?

Q.3 Define steam turbine ?

Q.4 Give any two examples of closed system.

Q.5 Define Otto cycle.

Q.6 Give any two examples of externally fired boilers.

Q.7 Define air compressor.

Q.8 Define C. O . P of refrigerator.

Q.9 Define impulse turbine.

Q.10 Define lubrication.

SECTION-B

Note: Short answer type questions. Attempt any six questions out of Eight questions. (6x5=30)

Q.11 Differentiate between lever safety valve and dead weight safety valve.

Q.12 Describe with a neat sketch the working of a surface condenser.

Q.13 Explain the working of single stage reciprocating air compressor.

Q.14 Give any five differences between fire tube boiler and water tube boiler

Q.15 Describe with neat sketch working principle of four stroke petrol engine.

Q.16 Explain concept of perpetual motion machine of second kind.

Q.17 Explain the significance of entropy in thermodynamic system.

Q.18 Differentiate between reciprocating and rotary Compresser.

SECTION-C

Note: Long answer type questions. Attempt any one question out of two questions. (10x1=10)

Q.19 Describe general energy equation for a steady flow process.

Q.20 What is an Otto cycle ? Drive an expression for its efficiency.