

## **SECTION-B**

**Note:** Short answer type questions. Attempt any six questions out of eight questions.  $(6 \times 5 = 30)$

- Q.11 Explain the working of Impulse reaction steam turbine in detail.
- Q.12 Explain Diesel cycle with a neat diagram.
- Q.13 State & explain first law of thermodynamics in brief.
- Q.14 Explain the Carnot cycle with a neat diagram.
- Q.15 Explain the working of water tube boiler type steam generator in brief.
- Q.16 Explain classification of steam turbines.
- Q.17 Explain concept of Perpetual motion machine of second order.
- Q.18 Differentiate between open, closed and isolated system with examples.

## **SECTION-C**

**Note:** Long answer questions. Attempt any one questions out of two questions.  $(1 \times 10 = 10)$

- Q.19 Explain the elements of a steam power plant in detail.
- Q.20 Explain the construction & working of rotary air compressor in detail.

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**2nd Sem, Level 4 / DVOC (Ref. & Air Cond.)**

**Subject : Basics of Applied Thermodynamics**

Time : 2 Hrs.

M.M. : 50

## **SECTION-A**

**Note:** Very short questions. Attempt all ten questions.  $(10 \times 1 = 10)$

- Q.1 What is entropy?
- Q.2 A refrigerator has COP of 5. How much work must be supplied to the refrigerator in order to remove 400 J of heat from it?
- Q.3 What is relationship between system, surrounding and universe?
- Q.4 What is stroke length?
- Q.5 Define internal energy.
- Q.6 Define work in thermodynamics.
- Q.7 What is a non-cyclic process?
- Q.8 Define calorific value of a fuel.
- Q.9 What is boiler efficiency?
- Q.10 Define isolated system.