



- Q.4 Thermodynamic's Zeroth law is based upon:
- Thermal equilibrium of the systems
  - Relative pressure between systems
  - Volume of the system
  - All of the above
- Q.5 Bomb calorimeter is an example of
- Open system
  - Closed system
  - Isolated system
  - The data is undefined
- Q.6 According to Charles law of perfect gas, the volume of given mass varies directly as its
- Pressure
  - Absolute Temperature , if pressure is kept constant
  - Absolute temperature, if volume is kept constant
  - None of these

### SECTION-B

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

- Q.7 System + Surroundings = \_\_\_\_\_
- Q.8 Define isothermal process.

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- Q.9 First law of thermodynamics is based on \_\_\_\_\_
- Q.10 \_\_\_\_\_ properties depends on the mass of the system.
- Q.11 A body from which the heat can be extracted taken unlimited is known as \_\_\_\_\_
- Q.12 Define swept volume

### SECTION-C

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

- Q.13 Explain kelvin plank statement with the help of neat sketch.
- Q.14 Define triple point. Explain its importance with neat sketch.
- Q.15 Explain open , closed & Isolated system
- Q.16 Compare centrifugal compressor with axial flow compressor.
- Q.17 Explain PPM of first kind and second kind in brief,
- Q.18 Define Boiler Mounting & Accessories?
- Q.19 Compare Otto cycle and diesel cycle.
- Q.20 Describe briefly Carnot cycle with its PV diagram
- Q.21 Write various classification of boilers in brief.
- Q.22 10 m<sup>3</sup> of a gas at 600 kPa absolute pressure expands at constant temperature to a volume of 30 m<sup>3</sup>. Find the pressure of gas in bar.

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