

- N.B. :** (1) Attempt any **four** questions.
(2) **Each** question carries **10** marks.
(3) Draw **neat well labelled diagram** whenever **necessary**.

1. (a) Explain how hydrostatics influences flow of fluids. **5**
(b) Write in brief on modes of heat transfer. Write briefly on Kirchhoff's Law. **5**
2. (a) Define Laminar and Turbulent flow. **5**
(b) Classify pumps. Write on positive displacement pumps. **5**
3. (a) What are flow meters ? Differentiate between orifice and venturi flow meters. **5**
(b) Why conveyors are used ? Explain the working of pneumatic conveyors. **5**
Write its advantages.
4. (a) Explain the process of Reverse Osmosis for purification of water. **5**
(b) What are refrigerants ? Explain refrigeration cycle. **5**
5. (a) Define centrifugation. Give the principle, construction and working of perforated basket centrifuge. **5**
(b) Differentiate between thermosetting and thermoplastics with suitable examples. **5**
6. Write short notes on any **five** :- **10**
(a) Dew Point **(2X5)**
(b) Renold's Number
(c) Galvanic Corrossion
(d) Humidity.
(e) Viscosity
(f) Surface Tension
(g) Bourdon gauge.
