

Internal Examination 2021 (3rd Sem)

Class - B.Sc (III Sem) Sub: Physics (E.E/Gen)

Answer all the questions

- 1 Thermal equilibrium is related to law of thermodynamics
(a) first (b) 2nd (c) 3rd (d) Zeroth
- 2 The mathematical form of first law of thermodynamics
(a) $dQ = dU + dW$ (b) $dU = dQ + dW$ (c) $dW = dQ + dU$ (d) None of above
- 3 The relation between C_p and C_v is
(a) $C_v - C_p = R$ (b) $C_p - C_v = R$ (c) $\frac{C_p}{C_v} = R$ (d) $C_p + C_v = R$
- 4 The value of specific heat ratio ($\gamma = \frac{C_p}{C_v}$) for diatomic gas is
(a) 1 (b) $\frac{4}{3}$ (c) $\frac{7}{5}$ (d) $\frac{5}{3}$
- 5 The change in entropy for reversible process is
(a) $\Delta S = 0$ (b) $\Delta S > 0$ (c) $\Delta S < 0$ (d) None
- 6 The four thermodynamical relation was given by
(a) Newton (b) Faraday (c) Maxwell (d) Einstein
- 7 The efficiency of Carnot's engine depends upon temperature of
(a) Source (b) Sink (c) both source and sink (d) None
- 8 The energy associated with each degree of freedom is equal to
(a) $\frac{1}{2} kT$ (b) kT (c) $2kT$ (d) $\frac{3}{2} kT$
- 9 The quantity which remains constant for cyclic process is
(a) Internal Energy (b) Enthalpy (c) Pressure (d) Volume
- 10 The enthalpy is given by
(a) $H = U + TS$ (b) $H = U + PV$ (c) $H = U - TS$ (d) $H = U - PV$