



Shri Shivaji Education Society's
Shri Pundlik Maharaj Mahavidyalaya Nandura (Rly.)
Department of Physics
Class: B.Sc. I Sem II



Choose the correct Alternative

1. Entropy is a measure of
 - Perfect order.
 - Disorder.
 - Available Energy.
 - None of these.

2. In all irreversible processes the entropy of the universe
 - Increases.
 - Decreases.
 - Remains constant.
 - Sometime increases and sometime decreases.

3. During isothermal process
 - P is constant.
 - T is constant.
 - V is constant.
 - None of these.

4. Which of following represent the reversible process
 - $ds=0$.
 - $ds>0$.
 - $ds<0$.
 - None of these.

5. The number of degree of freedom for monoatomic gas is
 - 3.
 - 5.
 - 7.
 - 6.

6. The energy of given sample of an ideal gas depends only on its
 - Volume.

- Pressure.
- Temperature.
- Density.

7. R.M.S. speed of the molecule is directly proportional to

- T.
- T^2 .
- $1/T$.
- \sqrt{T} .

8. The phenomenon of diffusion is due to transport of

- Energy.
- Mass.
- Momentum.
- Electrons.

9. Which is constant in Joule-Thomson Effect?

- Internal energy.
- Gibb's Function.
- Enthalpy.
- Helmholtz free energy.

10. A gas can be liquefied by application of pressure when

- Its temperature can be greater than the critical temperature.
- Its volume is very low.
- Its temperature is below the critical temperature.
- Its pressure is very low.

11. When charged particle moves in a transverse electric field it traces a

- Circular path.
- Parabolic path.
- Straight path.
- Irregular path.

12. When charged particle moves in a transverse magnetic field it traces a

- Circular path.
- Parabolic path.
- Straight path.
- Irregular path.

13. Thevenin equivalent circuit gives

- Voltage equivalent source.

- Current equivalent source.
- Both (a) and (b).
- None of these.

14. If r is internal resistance of source and R_L is a load resistance. The maximum power is transferred to load resistance when

- Voltage equivalent source.
- Current equivalent source.
- Both (a) and (b).
- None of these.

15. The unit of capacitance is

- Farad.
- Ohms.
- Henry.
- Ampere.

16. At a series resonance the circuit acts as a pure

- Inductive.
- Capacitive.
- Resistive.
- All of the above.

17. Series resonant circuit is known as

- Rejector circuit.
- Acceptor circuit.
- Tank circuit.
- All of the above.

18. Sharpness of resonance in series LCR circuit depends on the value of

- Inductance.
- Capacitance.
- Resistance.
- None of these.

19. The time constant of an L-R circuit in which the direct current is increasing from zero to maximum value I_0 is a time at which the transient currents have the value

- I_0 .
- $0.3679I_0$.
- $0.5 I_0$.
- $0.6321 I_0$.

20. The number of degree of freedom for a rigid polyatomic gas is

- 3.
- 5.
- 7.
- 6.