

Inter (Part-I) 2018

Physics	Group-II	PAPER: I
Time: 20 Minutes	(OBJECTIVE TYPE)	Marks: 17

Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1- Intensity of light depends on:

- (a) Wavelength (b) Amplitude ✓
(c) Velocity (d) Frequency

2- The ratio of angular frequency and linear frequency is:

- (a) $2\pi \checkmark$ (b) π
(c) $\frac{1}{2\pi}$ (d) $\frac{\pi}{2}$

3- Which shows correct relation between H and T of projectile:

- (a) $H = \frac{gT^2}{8} \checkmark$ (b) $H = \frac{8T^2}{g}$
(c) $H = \frac{8g}{T^2}$ (d) $H = \frac{8}{gT^2}$

4- Velocity of sound is independent of:

- (a) Temperature (b) Density
(c) Pressure ✓ (d) Medium

5- If the radius of droplet becomes half, then its terminal velocity will be:

- (a) Double (b) Half
(c) One-fourth ✓ (d) Four time

- 6- The percentage uncertainty in measurement of mass and velocity are 2% and 3%, the maximum uncertainty in the measurement of kinetic energy is:
- (a) 11% (b) 8% ✓
(c) 6% (d) 1%
- 7- SI unit of pressure of gas is:
- (a) Nm^{-2} ✓ (b) Nm
(c) N^2m^{-1} (d) N^2m
- 8- Hot igneous rocks usually in molten or partly molten state are found in the depth of:
- (a) 5 km (b) 10 km ✓
(c) 15 km (d) 20 km
- 9- Angle between ray of light and wave front is:
- (a) 0° (b) 60°
(c) 120° (d) 90° ✓
- 10- Solid angle subtended at the center by a sphere is:
- (a) 2π (b) 4π ✓
(c) 6π (d) 8π
- 11- If 30 waves per second pass through a medium at speed of 30 ms^{-1} , the wavelength is:
- (a) 30 m (b) 15 m
(c) 1 m ✓ (d) 900 m
- 12- $\hat{i} \cdot (\hat{j} \times \hat{k})$ is equal to:
- (a) \hat{k} (b) 1 ✓
(c) Null vector (d) Zero
- 13- Information carrying capacity of optical fibre is called:
- (a) Capacity (b) Band width ✓
(c) Immunity (d) Ability

- 14- Radar system is an application of:
(a) Interference (b) Beats
(c) Stationary waves (d) Doppler's effect ✓
- 15- For an ideal gas, the potential energy associated with its molecules is:
(a) Maximum (b) Zero ✓
(c) $\frac{1}{2} KX_0^2$ (d) $\frac{1}{2} KX_0$
- 16- A wheel of radius 50 cm having an angular speed 5 rad / sec will have linear speed:
(a) 1.5 ms⁻¹ (b) 2.5 ms⁻¹ ✓
(c) 3.5 ms⁻¹ (d) 4.5 ms⁻¹
- 17- The resultant of two forces 3N and 4N acting parallel to each other is:
(a) 7 N ✓ (b) 1 N
(c) 5 N (d) 4 N

