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	The first demonstration of wave nature of light was provided in 1801 by the experiment of :
	(A) Huygen (B) Newton (C) Maxwell (D) Thomas Young
2	When a body moves in a circle its linear velocity always :
	(A) Remains constant (B) Becomes zero (C) Changes (D) Increases
3	The rate of change of momentum of a body falling freely is equal to its :
	(A) K.E. (B) Weight (C) Power (D) Momentum
4	A heavily damped system has a fairly flat resonance curve in an :
	(A) Velocity time graph (B) Distance time graph
	(C) Amplitude frequency graph (D) Amplitude time graph
5	The rotational K.E. of Disc is equal to :
	(A) $\frac{1}{4}mv^2$ (B) $\frac{1}{2}mv^2$ (C) $\frac{1}{2}I\omega$ (D) $I\omega$
6	Time interval between normal heart beats is :
	(A) $1\times10^{-5}s$ (B) $8\times10^{1}s$ (C) $1\times10^{-2}s$ (D) $8\times10^{-1}s$
7	The ratio of $\frac{C_p}{C_v}$ for a diatomic gas is equal to :
	(A) 1.67 (B) 1.50 (C) 1.40 (D) 1.29
8	A typical rocket eject the burn gases at speeds of over :
	(A) 400 m / sec (B) 4000 m/sec (C) 8000 m/sec (D) 10000 m/sec
9	Longitudinal waves do not exhibit :
	(A) Reflection (B) Refraction (C) Polarization (D) Diffraction
10	The branch of Physics which is concerned with ultimate particles of which matter is composed of is called :
	(A) Atomic Physics (B) Nuclear Physics (C) Plasma Physics (D) Particle Physics
11	Viscosity of air at 30°C is :
	(A) $0.019\times10^{-3}Nsm^{-2}$ (B) $0.295\times10^{-3}Nsm^{-2}$
	(C) $0.510\times10^{-3}Nsm^{-2}$ (D) $0.564\times10^{-3}Nsm^{-2}$
12	If $\vec{A}=-4\hat{i}$, $\vec{B}=6\hat{j}$ then $\vec{A}.\vec{B}$ will be :
	(A) $24\hat{k}$ (B) 24 (C) Zero (D) $-24\hat{k}$
13	The diameter of the core of multimode step index fibre is :
	(A) 50 mm (B) 50 μm (C) 50 nm (D) 50 Pm
14	Bats navigate and find food by :
	(A) Microwaves (B) Echo location (C) Electromagnetic waves (D) Matter waves
15	If temperature of a sink of a heat engine is absolute zero, the efficiency of heat engine should be :
	(A) 100 % (B) 50 % (C) 0 % (D) Infinity
16	Two masses of 1 gm and 4 gm are moving with same K.E. The ratio of their linear momentum are :
	(A) 1 : 16 (B) 6 : 1 (C) 1 : 2 (D) 4 : 1
17	If the magnitude of scalar and vector product of two vectors are $2\sqrt{3}$ and 2 respectively, the angle between vectors is :
	(A) 30° (B) 45° (C) 120° (D) 180°