Roll No _____ (To be filled in by the candidate) **(Academic Sessions 2018 – 2020 to 2021 – 2023)**

PHYSICS 222-(INTER PART – I) Time Allowed : 20 Minutes

Q.PAPER – I (Objective Type) GROUP – II Maximum Marks : 17

PAPER CODE = 6472

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	SI unit of intensity of light is :			
	(A) Mole	(B) Kelvin	(C) Candela	(D) Ampere
2	SI system is built up by how many kinds of units :			
	(A) Six	(B) Five	(C) Four	(D) Three
3	SI unit of torque is :			
	(A) Nm^{-1}	(B) Nm	(C) Nm^{-2}	(D) $Kgm^{-1}s^{-1}$
4	For a body to be in complete equilibrium :			
	(A) $a = 0$ and $\alpha = 0$	(B) $\Sigma \vec{F} = 0$	(C) $\Sigma \vec{\tau} = 0$	(D) $\Sigma \vec{Fx} = \Sigma \vec{Fy}$
5	The acceleration of $1.5\,ms^{-2}$ is expressed in kmh^{-2} :			
	(A) 324	(B) 19440	(C) 2.25	(D) 5400
6	For what angle of projection projectile has maximum horizontal range :			
	(A) 90°	(B) 0°	(C) 45°	(D) 30°
7	One kilo watt is equal to :			
	(A) 1000 J/S	(B) 10^6 watt	(C) 0.1×10^3 watt	(D) 6.25×10^{25} J
8	Magnitude of centripetal acceleration is :			
	(A) rw^2	(B) r^2w	(C) $\frac{w^2}{r}$	(D) r^2w^2
9	One torr in Nm^{-2} is equal to :			
	(A) 1.333	(B) 133.3	(C) 1333	(D) 13.33
10	Radius of geostationary orbit is :			
	(A) $4.23\times10^4 m$	(B) $4.23\times10^4 km$	(C) 6400 km	(D) $423\times10^4 km$
11	Example of mechanical wave is :			
	(A) Water wave	(B) Radio wave	C) Infrared wave	(D) Ultraviolet wave
12	Distance between node and consecutive antinode is :			
	(A) $\lambda/2$	(B) $3\lambda/2$	(C) $\frac{\lambda}{4}$	(D) λ
13	Open end of an organ pipe act as :			
	(A) Node	(B) Antinode	(C) Crest	(D) Trough
14	In Young's double slit experiment fringe spacing will be maximum if we use :			
	(A) Green light	(B) Red light	(C) Blue light	(D) Yellow light
15	If N is number of ruling on the grating then the resolving power in mth order diffraction is equal to :			
	(A) $R = \frac{N}{m}$	(B) $R = N \times m$	(C) $R = \frac{m}{N}$	(D) $m + \frac{N}{2}$
16	For one mole of an ideal gas , the gas equation becomes :			
	(A) $PV = nRT$	(B) $PV = 3RT$	(C) $PV = \frac{3}{2}RT$	(D) $PV = RT$
17	SI unit of entropy is :			
	(A) $\frac{J}{Kg}$	(B) $\frac{J}{K}$	(C) $Kgms^{-1}$	(D) JK