

Objective
Paper Code
6478

Intermediate Part First - 103
PHYSICS (Objective) GROUP - II
Time: 20 Minutes Marks: 17

Roll No. : _____



You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill the relevant circle in front of that question number on computerized answer sheet. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero marks in that question. Attempt as many questions as given in objective type question paper and leave other circles blank.

S.#	Questions	A	B	C	D
1	Dimensions of angular velocity are:	$[LT^{-1}]$	$[T^{-1}]$	$[L^{-1}T^{-1}]$	$[MLT^{-1}]$
2	Bernoulli's equation gives the dimensions of:	Pressure	Energy	Flow rate	Velocity
3	If the initial phase is $\frac{\pi}{2}$ rad, the instantaneous displacement in SHM will be:	$X_0 \sin \omega t$	$X_0 \cos \omega t$	$X_0 \sin \omega t$	Zero
4	Human ear can recognize beats having maximum frequency equal to:	40Hz	30Hz	5Hz	10Hz
5	If 10 waves occupy 15cm, what is the wavelength?	0.6m	6cm	1.5cm	15m
6	When a red light is replaced with blue light in Young's experiment, fringe spacing:	Increases	Decreases	Remains same	Becomes infinite
7	If the focal lengths of objective and eye-piece are doubled, the length of telescope becomes:	Double	Half	Three times	Four times
8	When ice melts, entropy _____	Increases	Decreases	Remains unchanged	Becomes more negative
9	The relation $-W = +\Delta U$, represents the process:	Isothermal expansion	Adiabatic expansion	Isothermal expansion	Adiabatic compression
10	Which is a base quantity?	Area	Charge	Electric current	Force
11	A measurement of a needle diameter, $D = 4.5 \pm 0.01$ mm has percentage uncertainty:	45 %	0.4 %	0.5 %	0.2 %
12	$ \hat{i} + \hat{j} + \hat{k} $ is equal to:	$3\sqrt{2}$	$2\sqrt{3}$	$\sqrt{3}$	1
13	For what angle between velocity and magnetic field, the force on a charge particle will be maximum?	90°	45°	0°	180°
14	The dragless ballistic trajectory for spherical earth should be:	Parabolic	Elliptical	Hyperbolic	spherical
15	Horizontal acceleration of projectile motion is:	G	g	0ms^{-2}	12ms^{-2}
16	With increasing attitude, the absolute gravitational potential energy of an object:	Increases	Decreases	Becomes more negative	Remains constant
17	For uniform circular motion, tangential acceleration equals:	Centripetal acceleration	Centrifugal acceleration	Angular acceleration	Zero

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