

Objective
Paper Code
6477

Intermediate Part First

PHYSICS (Objective) GROUP - I

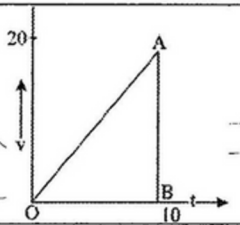
Time: 20 Minutes

Marks: 17



Q.No.1

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.acf

S.#	Questions	A	B	C	D
1	Centripetal force performs:	Positive work	No work	Negative work	Maximum work
2	Which one is correct?	1 torr = 13.33 Nm^{-2}	2 torr = 26.66 Nm^{-2}	5 torr = 65.65 Nm^{-2}	10 torr = 1333 Nm^{-2}
3	Which other quantity has the same unit as spring constant has Nm^{-1} ?	Torque	Momentum	Surface tension	Rotational K.E
4	If a wave is travelling in a rarer medium and incident on a denser medium then the phase change is:	360°	180°	90°	0°
5	When air column is closed from one end then the fundamental frequency becomes:	$1.0\left(\frac{v}{\ell}\right)$	$0.5\left(\frac{v}{\ell}\right)$	$0.75\left(\frac{v}{\ell}\right)$	$0.25\left(\frac{v}{\ell}\right)$
6	When fringe spacing in Young's double slit experiment is increased by increasing wavelength then number of fringes will be:	Decreased	Increased	Constant	Disappear
7	For incident angles equal to or greater than the critical angle, the glass-air boundary will act as:	Lens (Biconvex)	Mirror (Plane)	Lens (Concave)	Lens (Plano convex)
8	When the work is done at the cost of internal energy, then the equation becomes:	$W = \Delta U$	$W = Q$	$W = -\Delta U$	$W = \Delta V$
9	Pick the correct condition for the relation $C_p - C_v = R$:	Internal energy is kept constant for both processes	Pressure is kept constant for both processes	Temperature is kept constant for both processes	Volume is kept constant for both processes
10	How many number of zeros in 7.4000 and 8000 kg are significant, if the later quantity has 1 kg least count?	None and none	Three and three	Three and two	Two and one
11	What choice would you have to pick for the percentage uncertainty in measuring 2.3cm with meter rod and 2.45cm with vernier calliper?	4.3% and 0.4%	4.0% and 0.1%	0.1% and 0.01%	3.9% and 0.52%
12	The distance of point P of position vector $\vec{r} = 3\hat{i} + 3\hat{j} + 3\hat{k}$ from the origin is:	3.0 unit	6.4 unit	5.2 unit	2.5 unit
13	Two vectors to be combined have magnitudes 60N and 35N with different directions. Pick the correct answer:	95 N	25 N	Both A & B	Can be any value between option A & B
14	What is the distance travelled by a body in the following velocity time graph? 	100 m	20 m	10 m	5 m
15	Water flows out from a pipe at 3 Kgs^{-1} and its velocity changes from 5 ms^{-1} to zero on striking the ball, then force is:	10 N	15 N	20 N	25 N
16	Solar energy at normal incidence outside the Earth's atmosphere is:	1.0 Wm^{-2}	1.4 Wm^{-2}	1.0 kWm^{-2}	1.4 kWm^{-2}
17	For one radian, arc length 'S' and radius 'r' of circle has the relation:	$S > r$	$r > S$	$S = r$	$S = 2r$