



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.

S.#	Questions	A	B	C	D
1	Dimensions of power are:	$[ML^2T^{-3}]$	$[M^2LT^{-2}]$	$[MLT^{-1}]$	$[MLT^{-2}]$
2	If error in measurement of radius of circle is 2%, then permissible error in its area will be:	1%	2%	4%	8%
3	Three vectors $\vec{A}$, $\vec{B}$ and $\vec{C}$ satisfy the relation $\vec{A} \cdot \vec{B} = 0$ and $\vec{A} \cdot \vec{C} = 0$, the vector $\vec{A}$ is parallel to:	$\vec{B}$	$\vec{C}$	$\vec{B} \cdot \vec{C}$	$\vec{B} \times \vec{C}$
4	Angle between the vectors $(\hat{i} + \hat{j})$ and $(\hat{j} + \hat{k})$ is:	0°	60°	90°	180°
5	If the momentum of a body is numerically equal to its kinetic energy, then speed of body is:	1 ms^{-1}	2 ms^{-1}	4 ms^{-1}	8 ms^{-1}
6	Area under force-displacement graph gives:	Velocity	Power	Work done	Acceleration
7	In rotational motion, analogous of mass is:	Momentum	Inertia	Moment of inertia	Angular momentum
8	A body is moving in a circular path. The angle between its linear velocity and angular velocity is:	180°	90°	45°	0°
9	The velocity of rain drop attains constant value due to:	Air currents	Upthrust of air	Surface tension	Viscous force exerted by air
10	Speed of efflux is measured by the relation:	$v = \sqrt{gh}$	$v = \sqrt{\frac{gh}{2}}$	$v = \sqrt{2gh}$	$\sqrt{\frac{4}{3}gh}$
11	In mass spring system, $\frac{1}{2} kx_0^2$ represents:	Total energy	K.E	P.E	Velocity
12	Speed of sound in vacuum at a temperature of 0°C is:	332 ms^{-1}	340 ms^{-1}	333 ms^{-1}	Zero
13	The frequency of sound in a medium is " f " and velocity " v ", if frequency in same medium becomes " $4f$ " then velocity will be:	BLANK		$2v$	$4v$
14	In Young's double slit experiment, the fringe spacing is equal to:			$\frac{\lambda L}{d}$	$\frac{\lambda d}{L}$
15	Nature of image in compound microscope is:	Real and inverted	Real and erect	Virtual and inverted	Virtual and erect
16	When all systems are taken together as the universe, the entropy of universe always:	Decrease	Increase	Remains unchanged	Nothing can be decided
17	The efficiency of diesel engine is about:	10% to 20%	15% to 25%	25% to 35%	35% to 40%