ECAT Pre General Science Physics Online Test

Sr	Questions	Answers Choice
1	When quarter of a circle is completed, phase of vibration is:	A. 90° B. 180° C. 45° D. 360°
2	The body oscillates due to _____ accelerates and overshoots the rest position due to_____,:	A. Applied force, inertial B. Restoring force, friction C. Frictional force, inertial D. Restoring force, inertial
3	Amplitude in SHM is equivalent to _____ in circular motion:	A. Diameter B. Radius C. Circumference D. None of these
4	The restoring force is _____ and opposite to the applied force within _____,:	A. Equal, elastic limit B. Different, the walls of the laboratory C. Different, elastic limit D. None of these
5	When a mass attached to a spring begins to move left or right from the equilibrium position, its P.E.:	A. Increases B. Decreases C. Remains constant D. None of these
6	To and from motion of a body about its mean position is known as:	A. Translatory motion B. Vibratory motion C. Rotatory motion D. None of these
7	In a _____ flow, each particle of the fluid is called a streamline and different streamlines _____cross each other.	A. Streamline, cannot B. Turbulent, cannot C. Streamline, can D. None of these
8	The study of fluid in motion basically involves law of conservation of:	A. Mass B. Energy C. Change D. Both A and C E. Both A and B
9	The drag force acting on a spherical droplet of radius 10^{-5}m moving with a velocity of 1	A. 10^{-16}N B. 10^{-14}N

	cm/sec in a fluid of velocity 5.31 x 10⁻⁷ m/sec. The units comes out to be:	C. 10^{-12}N D. 10^{-10}N
10	The dimensions of viscosity are:	A. $M^{2}L^{-1}T^{-2}$ B. $M^{-1}L^{1}T^{-1}$ C. $M^{-1}L^{-1}T$ D. $ML^{-1}T^{-1}$
11	The unit of viscosity is SI system is:	A. $Kg^{-1}m\,sec^{-1}$ B. $Kgm^{-1}\,sec^{-1}$ C. $Kg^{-1}m^{-1}sec$ D. None of these
12	When the upward drag force of the fluid becomes equal to downward force of gravity of the droplet, then its velocity:	A. Starts increasing B. Starts decreasing C. Becomes constant D. Is called escape velocity
13	0.10 cm can be written as:	A. 1.0×10^{-2}m B. 1.0×10^{-3}cm C. 1.0×10^{-4}cm D. $1. \times 10^{-4}$m
14	Stoke;s law is not applicable when the speed of the object moving through a fluid is:	A. Zero B. Small C. Large D. None of these
15	Drag force increases if speed of the object moving through the fluid:	A. Increases B. Decreases C. Remains constant D. None of these
16	Fog droplets are suspended in air when their weight is balanced by:	A. Force of gravity B. Upward trust due to air C. Surface tension D. None of these
17	At high speed, fluid friction _____ and fuel consumption ___,:	A. Increases, decreases B. Increases, increases C. Decreases, increases D. None of these
18	Two copper balls of 1 cm and 2 cm in diameter are simultaneously dropped in the same viscous medium. The terminal velocity of bigger ball is:	A. Not affected due to its size B. Twice that of small size ball C. Four times that of small size ball D. 1/4th of that of small size ball
19	When the droplet moves with terminal velocity in a fluid, the net force acting on the droplet is:	A. F_{D}-mg B. Zero C. mg-F_{D} D. None of these
20	The _____ viscous the medium is _____, is the value of terminal velocity of the droplet:	A. More, lesser B. Lesser, more C. Both A and B D. Lesser, lesser
21	Terminal velocity is the maximum velocity attained by a spherical droplet when the drag force_____the weight of droplet:	A. Is smaller than B. Is greater than C. Becomes equal to D. None of these
22	A massive object falls through a fluid:	A. Faster B. Slower C. Slowest D. None
23	High speed meteors rushing through air reduces to ashes because of:	A. Force of gravity B. High resistance of air C. Drag force D. None of these
24	Stock's law holds for:	A. Motion through free space B. Motion through viscous medium C. Bodies of all shapes D. None of these
25	Viscosity of water is _____ that of air but ___ that of plasma.	A. More, more B. Less, more C. Less, less D. More, less
		A. Greater than

26	Fluid friction is _____ the friction between two solid surfaces:	A. Greater than B. Smaller than C. Equal to D. None of these
27	Density of fluid is defined as:	A. Its volume to mass ratio B. Product of volume and mass C. Its mass of volume ratio D. None of these
28	Unit of viscosity is:	A. Kg m^{-1}sec^{-1} B. N s m^{-2} C. J s m^{-3} D. All of these
29	Glycerin has viscosity _____ the viscosity of water:	A. More than B. Equal to C. Less than D. None of these
30	A body is moving through a viscous medium eventually comes to rest because of:	A. Force of gravity B. Force of friction C. Its weight D. Both A and C