ECAT Physics Online Test

Sr	Questions	Answers Choice
1	Which of the following options correctly states the equation of continuity for an ideal fluid?	A. $A_1A_2 = V_1V_2$ B. $A_1/A_2 = V_2/V_1$ C. $A_1/A_2 = V_1/V_2$ D. none of the above
2	Which of the following has the greatest coefficient of viscosity?	A. water B. gasoline C. honey D. tar
3	What are the SI base units of the coefficient of viscosity	A. $Kg\ m\ s^{-2}$ B. $kgm^2\ s^{-2}$ C. $Kg\ m\ s^{-1}$ D. $kg\ m^{-1}s^{-1}$
4	Which of the following options states the names of fluids in the order of increasing viscosity?	A. mercury, motor oil, methanol B. methanol, mercury, motor oil C. motor oil, mercury, methanol D. methanol, motor oil, mercury
5	Viscosity is defined as	A. the friction between fluid and its container's walls B. the internal friction between two layers of fluid C. the resistance to flow a fluid experiences D. the extent to which outside factors effect the fluid's flow
6	Bernoulli's equation is applicable for	A. turbulent flow B. streamline flow C. both (a) and (b) D. all kinds of flows
7	The value of viscosity of a fluid is dependent on (at constant temperature)	A. the fluid itself B. the fluid and its container C. anything in contact with the fluid D. all of the above
8	Fluid A is more viscous than fluid B. While flowing through a pipe of the same dimensions and material which fluid takes longer to travel at 25°C?	A. fluid B B. fluid A C. both take the same time D. not possible to determine from given information
9	The instrument which detects the instant at which external pressure becomes equal to the systolic pressure is	A. stethoscope B. thermometer C. manometer D. barometer
10	According to the Bernoulli's theorem the pressure velocity are	A. equal to each other B. proportional to each other C. inversely proportional to each other D. none of them
11	The blood pressure of a person	A. decrease with age B. increase with age C. has no effect with age D. none of them
12	Blood pressure is measured by the instrument	A. stethoscope B. sphygmomanometer C. barometer D. none of them
13	One torr is equal to	A. $13.33\ N/m^2$ B. $760\ N/m^2$ C. $760\ mm\ Hg$ D. $133.3\ N/m^2$
		A. 75 - 80 torr

14	In a normal healthy person the value of diastolic pressure is	B. 100 torr C. 120 torr D. none of them
15	In a normal healthy person the value of systolic pressure is	A. 75 torr B. 80 torr C. 120 torr D. all of them
16	The time of flight of a projectile motion equal to	A. half of the time to reach maximum height B. twice the time to reach maximum height C. one fourth of time to reach maximum height D. time to reach maximum height
17	For maximum linear distance of travel, a projectile must be fired at an angle of	A. $0°$ B. $45°$ C. $90°$ D. $60°$
18	The velocity of a projectile is maximum	A. at the point of projection B. just before striking the ground C. at none of them D. at both of them
19	The vertical and horizontal range will be equal id angle of projection is	A. $76°$ B. $45°$ C. $60°$ D. $120°$
20	The projectile attains maximum horizontal range when it is projected at an angle of	A. $30°$ B. $45°$ C. $60°$ D. $75°$
21	The horizontal range of projectile, at a certain place, depends upon	A. the mass of the projectile B. velocity of projection C. angle of projection D. angle as well as velocity of projection
22	A particle of mass 0.5 g moving along x-axis is located of x_1= 15 m at t_1= 5s and x_2= 33 m at t_2= 13s its average velocity is	A. 6 m s^{-1} B. 2.45 m s^{-1} C. 2.25 m s^{-1} D. 4.45 m s^{-1}
23	The horizontal component of a projectile moving with initial velocity of 500 ms^{-1} at an angle 60° to x-axis is	A. 500 ms^{-1} B. 1000 ms^{-1} C. 250 ms^{-1} D. Zero
24	The vertical component of velocity of a projectile during its motion is minimum	A. at the time of projection B. at the highest point C. just before hitting the plane of projection D. all of them
25	During the projectile motion, the horizontal component of velocity	A. changes with time B. remains constant C. becomes zero D. decreases with time
		A. horizontal motion only B. vertical motion only

26	The projectile motion is composed of	B. vertical motion only C. horizontal and vertical motion D. none of them
27	The path (or trajectory) described by a projectile is	A. a parabola B. a hyperbola C. a circle D. a straight line
28	The path described by a projectile is called its	A. orbit B. trajectory C. range D. distance
29	Which of the following is not a projectile	A. a bullet fired from a gun B. a space ship C. a football in air D. an artillery shell
30	An object thrown upward with an initial velocity at certain angle with the horizontal and moving freely under the action of gravity is called	A. a rocket B. an aeroplane C. a projectile D. a ballon