

ECAT Pre General Science Online Test

Sr	Questions	Answers Choice
1	When a fluid is in motion, its flow can be considered as	A. turbulent B. streamline C. either or them D. neither of them
2	If every particle of the flow that passes a particular point, moves along the same path as followed by particles which passed the point earlier, then this flow is said to be	A. turbulent B. streamline C. abrupt D. none of them
3	During the steady flow, different streamlines	A. cannot across each other B. can across each other C. either of them D. neither of them
4	When each particle of the fluid moves along a smoth path, this path is known as	A. straight path B. smooth path C. haphazard path D. streamline
5	When the different streamlines cannot cross each other, then this condition is known as	A. continuity condition B. turbulent flow condition C. steady flow condition D. none of them
6	The direction of the streamlines is the same as the direction of the	A. force B. torque C. velocity D. weight
7	A water hose with an internal diameter of 20 mm at the outlet discharges 30 kg of water in 60 s. What is water speed at the outlet if density of water is 1000 kg/m^3 during its steady flow	A. 1.3 m/s B. 1.6 m/s C. 1.9 m/s D. 2.2 m/s
8	The terminal velocity of water droplet of radius $1 \times 10^{-4} \text{ m}$ and desity 1000 kg m^{-3} descending through air of viscosity $19 \times 10^{-6} \text{ kg. m}^{-1} \text{ s}^{-1}$ is	A. 2.5 ms^{-1} B. 3.2 ms^{-1} C. 4.3 ms^{-1} D. 1.1 ms^{-1}
9	At the starting point of the free fall motion of an object, its acceleration will be	A. maximum B. minimum C. zero D. none of them
10	The body will move with terminal velocity when it acquires	A. minimum speed B. zero speed C. maximum speed D. none of them
11	During the free fall motion of an object, when its weight becomes equal to the drag force, then it will move with	A. maximum speed B. zero speed C. maximum speed D. none of them
12	When weight of an object falling freely becomes equal to the drag force, then the body will move with	A. increasing speed B. decreasing speed C. constant speed D. none of them
13	When a water droplet falls through air, the net force on it is	A. Net force = drag force - weight B. Net force = weight - drag force C. Net force = drag force + weight D. Net force = weight + drag force
14	When a water droplet falling freely through air, the drag force on water droplet increases with th	A. decrease in speed B. increase in speed C. pressure D. none of them
15	At low speeds, the drag force is	A. proportional to speed B. inversely proportional to speed C. not simply proportional to speed D. none of them

16	The maximum drag force on a falling sphere is 9.8 N, its weight is	A. 1 N B. 9.8 N C. 4.9 N D. Cannot be calculated
17	According to Stokes' law, drag force depends on	A. Radius of the spherical body B. Terminal velocity of body C. Coefficient of viscosity D. All of above
18	When the speed of a body in a fluid increases then the drag force	A. decreases B. becomes zero C. increases D. none of them
19	An object moving through a fluid experiences a retarding force called a	A. frictional force B. terminal force C. opposing force D. drag force
20	Liquids and gases have	A. zero viscosity B. non-zero viscosity C. very large viscosity D. very small viscosity
21	Substances that flow easily have	A. large coefficient of viscosity B. small coefficient of viscosity C. either of them D. none of them
22	Substances that do not flow easily have	A. large coefficient of viscosity B. small coefficient of viscosity C. either of them D. none of them
23	How much force is required to slide one layer of the liquid over the other layer is measured by	A. friction B. density C. viscosity D. resistivity
24	The effect of friction between different layers of a flowing fluid is described in terms of	A. motion of fluid B. nature of fluid C. colour of fluid D. viscosity of fluid
25	The law of conservation of energy gives us	A. equation of continuity B. Bernoulli's theorem C. both of them D. none of them
26	The law of conservation of mass gives us the	A. equation of continuity B. Bernoulli's theorem C. both of them D. none of them
27	The analysis of fluid motion becomes simplified by using	A. law of conservation B. law of conservation of energy C. both of them D. none of them
28	Which quantity has the same units as impulse	A. force B. work C. linear momentum D. acceleration
29	The product of force and time is called	A. acceleration B. linear momentum C. angular momentum D. impulse
30	The entity which measures the quantity of motion in a body is called	A. force B. energy C. momentum D. power