

## ECAT Pre General Science Physics Chapter 6 Fluid Dynamics Online Test

Sr	Questions	Answers Choice
1	The irregular and unsteady flow of the fluid is called	A. turbulent flow B. steady flow C. either of them D. both of them
2	When there is no internal frictional forces between the adjacent layers of fluid, then the fluid is called	A. incompressible B. compressible C. viscous D. non viscous
3	The fluid is incompressible, if its density is	A. zero B. constant C. very high D. very small
4	If the flow is incompressible and the flow is steady then the mass of the fluid through the pipe	A. increases B. decreases C. becomes zero D. is conserved
5	The product of cross-sectional area of the pipe and the fluid speed at any point along the pipe is called	A. constant rate B. volume rate C. flow rate D. steady rate
6	The product of cross-sectional area of the pipe and the fluid speed at any pint along the pipe is	A. very high B. very low C. constant D. zero
7	According to the equation of continuity, when water falls from the tap, it's speed increases and its cross-sectional area	A. decreases B. increases C. becomes zero D. none of them
8	When a fluid is in motion, its flow can be considered as	A. turbulent B. streamline C. either or them D. neither of them
9	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
10	During the steady flow, different streamlines	A. cannot across each other B. can across each other C. either of them D. neither of them
11	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. steamlime
12	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
13	The direction of the streamlines is the same as the direction of the	A. force B. torque C. velocity D. weight
14	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 $1000 \text{ kg/m}^3$ during its steady flow	A. 1.3 m/s B. 1.6 m/s C. 1.9 m/s D. 2.2 m/s
15	The terminal velocity of water droplet of radius $1 \times 10^{-4} \text{ m}$ and desity $1000 \text{ kg m}^{-3}$ descending through air of viscosity $19 \times 10^{-6} \text{ kg. m}^{-1} \text{ s}^{-1}$ is	A. $2.5 \text{ ms}^{-1}$ B. $3.2 \text{ ms}^{-1}$ C. $4.3 \text{ ms}^{-1}$ D. $1.1 \text{ ms}^{-1}$

16	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
17	The body will move with terminal velocity when it acquires	A. minimum speed B. zero speed C. maximum speed D. none of them
18	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
19	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
20	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
21	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
22	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
23	The maximum drag force on a falling sphere is 9.8 N, it weight is	A. 1 N B. 9.8 N C. 4.9 N D. Cannot be calculated
24	According to slok's law, drag force depends on	A. Radius of the spherical body B. Terminal velocity of body C. Coefficient of viscosity D. All of above
25	When the speed of a body in a fluid increases then the drag force	A. decreases B. becomes zero C. increases D. non of them
26	An object moving through a fluid experiences a retarding force called a	A. frictional force B. terminal force C. opposing force D. drag force
27	Liquids and gasses have	A. zero viscosity B. non-zero viscosity C. very large viscosity D. very small viscosity
28	Substances that flow easily have	A. large coefficient of viscosity B. small coefficient of viscosity C. either of them D. none of them
29	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
30	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