

## ECAT Physics Chapter 6 Fluid Dynamics

Sr	Questions	Answers Choice
1	A person standing near the track of a fast moving train has tendency to fall towards it because of	A. Vibration due to motion of train B. Gravitation force of attraction between person and train <b>C. The high speed of train</b> D. Some other effect
2	With the increase of temperature viscosity	A. Increase B. Decrease C. Remains same D. Doubles
3	Drag force increases if speed of the object moving through the fluid:	A. Increases B. Decreases C. Remains constant D. None of these
4	Liquids and gasses have	A. zero viscosity <b>B. non-zero viscosity</b> C. very large viscosity D. very small viscosity
5	When a fluid is in motion, its flow can be considered as	A. turbulent B. streamline <b>C. either or them</b> D. neither of them
6	The dimensions of viscosity are:	A. $M^{2}L^{-1}T^{-2}$ B. $M^{1}L^{1}T^{-1}$ C. $M^{-1}L^{-1}T^{-1}$ <b>D. <math>ML^{-1}T^{-1}</math></b>
7	Pressure exerted by a gas on the walls of its container is due to	A. adhesion between the gas molecules and the container B. cohesion between the gas molecules and the container <b>C. collision between the gas molecules and the container</b> D. surface tension of the gas
8	The equation of continuity $A_1V_1 = A_2V_2$ is for the flow of	A. an ideal fluid B. an incompressible fluid C. a non viscous fluid <b>D. all of the above</b>
9	The pressure will be low where the speed of the fluid is	A. Zero <b>B. High</b> C. Low D. Constant
10	The drag force acting on a spherical droplet of radius $10^{-5}$ m moving with a velocity of 1 cm/sec in a fluid of velocity $5.31 \times 10^{-7}$ m/sec. The units comes out to be:	A. $10^{-16}$ N B. $10^{-14}$ N C. $10^{-12}$ N <b>D. <math>10^{-10}</math>N</b>
11	The product of cross-sectional area of the pipe and the fluid speed at any point along the pipe is	A. very high B. very low <b>C. constant</b> D. zero
12	The force exerted by the fluid in a hydraulic pump on the piston is $10 \text{ cm}^2$ , the fluid pressure on the piston is, in $\text{N/cm}^2$	A. 20 <b>B. 200</b> C. 2000 D. 20,000
13	The body will move with terminal velocity when it acquires	A. minimum speed B. zero speed <b>C. maximum speed</b> D. none of them
14	Which of the following has the greatest coefficient of viscosity?	A. water B. gasoline <b>C. honey</b>

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15	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
16	The SI unit of viscosity is	A. $\text{kg m}^{-1}\text{s}^{-1}$ B. $\text{kg ms}^{-1}$ C. $\text{kg m}^{-1}\text{s}^{-2}$ D. $\text{kg m}^{-1}\text{s}$
17	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
18	Under normal circumstances, the volume of blood is sufficient to keep the vessels	A. flattened for all times B. inflated for all times C. inflated for small times D. none of them
19	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
20	The blood pressure of a person	A. decrease with age B. increase with age C. has no effect with age D. none of them

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