

ECAT Physics Chapter 6 Fluid Dynamics

Sr	Questions	Answers Choice
1	Deep water almost runs still when surface water flow in rivers. What does it explains	A. Magnus effect B. Equation of continuity C. Surface energy D. Bernoulli's equation
2	If one of the pipes has a much smaller diameter than the other and are placed horizontally then form both sides of Bernoulli's equation, we can drop the term	A. P B. $\frac{1}{2} \rho v^2$ C. ρgh D. none of them
3	Blood has a density	A. Equal to water B. Greater then water C. Lesser then water D. None of these
4	A tube is tapered from 20 cm diameter to 2 cm diameter, the velocity at the first cross-section is 50 cm/s, then the velocity at the second cross-section is	A. 50 m/s B. 20 m/s C. 40 cm/s D. 5 cm/s
5	The dimensions of viscosity are:	A. $M^2 L^{-1} T^{-2}$ B. $M^2 L^{-1} T^{-1}$ C. $M L^{-1} T^{-1}$ D. $M L^{-1} T^{-1}$
6	The equation of continuity $A_1 V_1 = A_2 V_2$ is for the flow of	A. an ideal fluid B. an incompressible fluid C. a non visconcou fluid D. all of the above
7	A high concentration of red blood cells increases its viscosity from	A. 3 - 5 times that of mercury B. 5 - 8 times that of mercury C. 3 - 5 times that of water D. 5 - 8 times that of water
8	Matter is made up of very tiny particles called	A. Atoms B. Molecules C. Ions D. None of these
9	The electrical forces between the molecules of a liquid are	A. Repulsive B. Attractive C. Both A and B D. None
10	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
11	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
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	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
14	The mass of fluid passing through any cross-section per unit time is called	A. electric flux B. magnetic flux

	the mass of mass passing through any cross section per unit time is called	C. mass flux D. none of them
15	The direction of the streamlines is the same as the direction of the	A. force B. torque C. velocity D. weight
16	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
17	Viscosity of water is _____ that of air but ____ that of plasma.	A. More, more B. Less, more C. Less, less D. More, less
18	Bernoulli's equation is important in the field of	A. Electrical circuit B. Magnetism C. Photoelectric effect D. Flow of fluids
19	A flowing liquid possess	A. K.E B. P.E C. Pressure Energy D. All
20	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 viscosity 5.31×10^{-7} m/sec. The units comes out to be:	A. 10^{-16} N B. 10^{-14} N C. 10^{-12} N D. 10^{-10} N