# ECAT Physics Chapter 6 Fluid Dynamics

| Sr | Questions | Answers Choice |
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| 1 | Substances that flow easily have | A. large coefficient of viscosity<br>B. small coefficient of viscosity<br>C. either of them<br>D. none of them |
| 2 | At low speeds, the drag force is | A. proportional to speed<br>B. inversely proportional to speed<br>C. not simply proportional to speed<br>D. none of them |
| 3 | When the droplet moves with terminal velocity in a fluid, the net force acting on the droplet is: | A. F<sub>D</sub>-mg<br>B. Zero<br>C. mg-F<sub>D</sub><br>D. None of these |
| 4 | When a fluid is in motion, its flow can be considered as | A. turbulent<br>B. streamline<br>C. either or them<br>D. neither of them |
| 5 | If v is the velocity of flow of liquid through a tube of area of cross-section A, then according to equation of continuity | A. v/A = constant<br>B. A/v = constant<br>C. Av = constant<br>D. None |
| 6 | Pressure exerted by a gas on the walls of its container in due to | A. adhesion between the gas molecules and the container<br>B. cohesion between the gas molecules and the container<br>C. collision between the gas molecules and the container<br>D. surface tension of the gas |
| 7 | Surface tension of water is reduced by adding | A. Detergents<br>B. Camphor<br>C. Plastic<br>D. Both A and B |
| 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<br>B. fluid A<br>C. both take the same time<br>D. not possible to determine from given information |
| 9 | According to the Bernoulli's theorem the pressure velocity are | A. equal to each other<br>B. proportional to each other<br>C. inversely proportional to each other<br>D. none of them |
| 10 | When the upward drag force of the fluid becomes equal to downward force of gravity of the droplet, then its velocity: | A. Starts increasing<br>B. Starts decreasing<br>C. Becomes constant<br>D. Is called escape velocity |
| 11 | The rain drop falling from the sky reach the ground with | A. Constant terminal velocity<br>B. Constant gravitational acceleration<br>C. Variable acceleration<br>D. acceleration greater than g |
| 12 | When weight of an object falling freely becomes equal to the drag force, then the body will move with | A. increasing speed<br>B. decreasing speed<br>C. constant speed<br>D. none of them |
| 13 | The product of cross-sectional area of the pipe and the fluid speed at any point along the pipe is called | A. constant rate<br>B. volume rate<br>C. flow rate<br>D. steady rate |
| 14 | Bernoulli's equation is based upon law of conservation | A. Mass<br>B. Momentum<br>C. Energy<br>D. None of these |

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| 15 | When there is no internal frictional forces between the adjacent layers of fluid, then the fluid is called | A. incompressible<br>B. compressible<br>C. viscous<br>D. non viscous |
| 16 | Rate of flow can be expressed in | A. litre/sec<br>B. litre-sec<br>C. sec/litre<br>D. sec/litre-m |
| 17 | Drag force increases if speed of the object moving through the fluid: | A. Increases<br>B. Decreases<br>C. Remains constant<br>D. None of these |
| 18 | The instrument which detects the instant at which external pressure becomes equal to the systolic pressure is | A. stethoscope<br>B. thermometer<br>C. manometer<br>D. barometer |
| 19 | In a _____ flow, each particle of the fluid is called a streamline and different streamlines _____cross each other. | A. Streamline, cannot<br>B. Turbulent, cannot<br>C. Streamline, can<br>D. None of these |
| 20 | With the increase of temperature viscosity | A. Increase<br>B. Decrease<br>C. Remains same<br>D. Doubles |