

Physics ECAT Pre Engineering Chapter 6 Fluid Dynamics Online Test

Sr	Questions	Answers Choice
1	In a _____ flow, each particle of the fluid is called a streamline and different streamlines _____ cross each other.	A. Streamline, cannot B. Turbulent, cannot C. Streamline, can D. None of these
2	The study of fluid in motion basically involves law of conservation of:	A. Mass B. Energy C. Change D. Both A and C E. Both A and B
3	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
4	The dimensions of viscosity are:	A. $M^2 L^{-1} T^{-2}$ B. $M L^{-1} T^{-1}$ C. $M L^{-1} T^{-1}$ D. $M L^{-1} T^{-1}$
5	The unit of viscosity in SI system is:	A. $Kg^{-1} m sec^{-1}$ B. $Kgm^{-1} sec^{-1}$ C. $Kg^{-1} m^{-1} sec$ D. None of these
6	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
7	0.10 cm can be written as:	A. 1.0×10^{-2} m B. 1.0×10^{-3} cm C. 1.0×10^{-4} cm D. $1. \times 10^{-4}$ m
8	Stoke;s law is not applicable when the speed of the object moving through a fluid is:	A. Zero B. Small C. Large D. None of these
9	Drag force increases if speed of the object moving through the fluid:	A. Increases B. Decreases C. Remains constant D. None of these
10	Fog droplets are suspended in air when their weight is balanced by:	A. Force of gravity B. Upward thrust due to air C. Surface tension D. None of these
11	At high speed, fluid friction _____ and fuel consumption _____:	A. Increases, decreases B. Increases, increases C. Decreases, increases D. None of these
12	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
13	When the droplet moves with terminal velocity in a fluid, the net force acting on the droplet is:	A. $F_D - mg$ B. Zero C. $mg - F_D$ D. None of these
14	The _____ viscous the medium is _____, is the value of terminal velocity of the droplet:	A. More, lesser B. Lesser, more C. Both A and B D. None of these

D. Lesser, lesser

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Terminal velocity is the maximum velocity attained by a spherical droplet when the drag force_____the weight of droplet:

- A. Is smaller than
- B. Is greater than
- C. Becomes equal to
- D. None of these