

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

Sr	Questions	Answers Choice
1	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. $v/A = \text{constant}$ B. $A/v = \text{constant}$ C. $Av = \text{constant}$ D. None
2	Two water pipes of diameters 4 cm and 8 cm are connected with a supply line. The velocity of flow of water in the pipe 4 cm diameter is	A. 1/4 times B. 4 times C. Twice D. 1/2 of 8 cm diameter pipe
3	The rain drop falling from the sky reach the ground with	A. Constant terminal velocity B. Constant gravitational acceleration C. Variable acceleration D. acceleration greater than $g$
4	In case of streamed lined flow of liquid, the loss of energy is	A. Maximum B. Minimum C. Infinite D. equal to what is in turbulent flow
5	Fluids resist force, This property is called	A. Stiffness B. Strength C. Ductility D. Elasticity
6	The fluid which is incompressible and non viscous is called	A. Ideal fluid B. Non-ideal fluid C. Prefect fluid D. All
7	The electrical forces between the molecules of a liquid are	A. Repulsive B. Attractive C. Both A and B D. None
8	A container has a small hole in the bottom. Air can go through this hole, but water cannot. This can be best explained by the statement that	A. water contains hydrogen atoms, air does not B. water molecules are smaller than molecules in the air C. water molecules are smaller than molecules in the air D. surface tension of the water prevents it from
9	If water rises 4 cm in a long, thin tube because of capillary action, then, under corresponding conditions of use, the rise (in the tube) of a liquid whose density is $2 \text{ g/cm}^3$ will be	A. 1 cm B. 2 cm C. 8 cm D. None
10	When the velocity of a liquid flowing steadily in a tube increases, its pressure?	A. Decreases B. Increases C. Remains same D. Zero
11	Fire fighters have jet attached to the head of their water pipes in order to	A. Increase the mass of water flowing per second B. Increase the velocity of water flowing out C. Increase the volume of water flowing per second D. Avoid wastage of water
12	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
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14	Surface tension of water is reduced by adding	A. Detergents B. Camphor C. Plastic D. Both A and B
15	Bernoulli's equation is based upon law of conversation of	A. mass B. momentum C. Energy D. None
16	A flowing liquid possess	A. K.E B. P.E C. Pressure Energy D. All
17	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. 200 C. 2000 D. 20,000
18	The density of water is $10^3 \text{ kg/m}^3$ . The water pressure on a submarine is $2.0 \times 10^7 \text{ N/m}^2$ . The depth of the submarine below the surface of the water, in meters, is approximately	A. 200 m B. 11000 m C. 2000 m D. 8000 m
19	The term Brownian movement refers to	A. irregular motions of small particles suspended in a fluid B. convection currents in a liquid or gas C. convection currents in a gas but not in a liquid D. the stretching of a body beyond its elastic limit
20	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 C. collision between the gas molecules and the container D. surface tension of the gas
21	A body is floating in a liquid. The up thrust on the body is	A. Equal to weight of liquid displaced B. Zero C. Less than the weight of liquid displaced D. Weight of body-weight of liquid displaced
22	In a surface tension experiment with a capillary tube water rises up to 0.1 m. if the same experiment is repeated on an artificial satellite, which is revolving around the earth, water will rise in the capillary tube up to a height of	A. 0.1 m B. 0.2 m C. 0.98 m D. Full length of the capillary tube
23	In a container having water filled up to a height h, a hole is made in the bottom. The velocity of water flowing out of the hole is	A. Independent of h B. Proportional to $h^{1/2}$ C. Proportional to h D. Proportional to $h^{2/3}$
24	Internal friction of fluid is called	A. Surface tension B. Viscosity C. Resistance D. Cohesive force
25	At high altitude the blood oozes out of the nose and ear because	A. The blood pressure increase at high altitudes B. The percentage of oxygen in the air increase C. The atmospheric pressure decrease there D. The density of blood decrease at high altitudes
26	The pressure will be low where the speed of the fluid is	A. Zero B. High C. Low D. Constant
27	Blood has a density	A. Equal to water B. Greater than water C. Lesser than water D. None of these
28	According to Stoke's law, drag force depends on	A. Initial velocity B. Final velocity C. Terminal velocity D. Instantaneous velocity
		A. Viscosity B. Poise's law

29 Ball pen functions on the principle of

- B. Boyle's law
- C. Gravitational force
- D. Surface tension

30 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. Gravitational force of attraction between person and trains
- C. The high speed of train
- D. Some other effect