ECAT Physics Online Test

Sr	Questions	Answers Choice
1	Rate of flow can be expressed in	A. litre/sec B. litre-sec C. sec/litre D. sec/litre-m
2	The un-steady streamline flow is called	A. laminar flow B. turbulent flow C. both of them D. none of them
3	The smooth or steady streamline flow is known as	A. laminar flow B. turbulent flow C. both of them D. none of them
4	A tube tapers from 20 cm diameter to 2 cm, the velocity at first cross-section is 50 ms^{-1} then velocity at second cross-section is	A. 5000 cms^{-1} B. 500 cms^{-1} C. 50 cms^{-1} D. 0.5 cm/s
5	The equation of continuity is	A. $A_1 A_2 = V_1 V_2$ B. $A_1 / V_1 = A_2 / V_2$ C. $V_1 / A_1 = V_2 / A_2$ D. $A_1 V_1 = A_2 V_2$
6	Above a certain velocity of a fluid is called	A. turbulent flow B. steady flow C. either of them D. both of them
7	The irregular and unsteady flow of the fluid is called	A. turbulent flow B. steady flow C. either of them D. both of them
8	When there is no internal frictional forces between the adjacent layers of fluid, then the fluid is called	A. incompressible B. compressible C. viscous D. non viscous
9	The fluid is incompressible, if itsdensity is	A. zero B. constant C. very high D. very small
10	If the flow is incompressible and the flow is steady then the mass of the fluid through the pipe	A. increases B. decreases C. becomes zero D. is conserved
11	The product of cross-sectional area of the pipe and the fluid speed at any point along the pipe is called	A. constant rate B. volume rate C. flow rate D. steady rate
12	The product of cross-sectional area of the pipe and the fluid speed at any pint along the pipe is	A. very high B. very low C. constant D. zero
13	According to the equation of continuity, when water falls from the tap, it's speed increases and its cross-sectional area	A. decreases B. increases C. becomes zero D. none of them
14	When a fluid is in motion, its flow can be considered as	A. turbulent B. streamline C. either or them D. neither of them

15	If every particle of the flow that passes a particular point, moves along the same path as followed by particles which passed the point earlier, then this flow is said to be	A. turbulent B. streamline C. abrupt D. none of them
16	During the steady flow, different streamlines	A. cannot across each other B. can across each other C. either of them D. neither of them
17	When each particle of the fluid moves along a smoth path, this path is known as	A. straight path B. smooth path C. haphazard path D. steamline
18	When the different streamlines cannot cross each other, then this condition is known as	A. continuity condition B. turbulent flow condition C. steady flow condition D. none of them
19	The direction of the streamlines is the same as the direction of the	A. force B. torque C. velocity D. weight
20	A water hose with an internal diameter of 20 mm at the outlet discharges 30 kg of water in 60 s. What is water speed at the outlet if density of water is 1000 kg/m^3 during its steady flow	A. 1.3 m/s B. 1.6 m/s C. 1.9 m/s D. 2.2 m/s
21	The terminal velocity of water droplet of radius 1 x 10^{-4} m and desity 1000 kg m^{-3} descending through air of viscosity 19 x 10^{-6} kg. m^{-1} s^{-1} is	A. 2.5 ms^{-1} B. 3.2 ms^{-1} C. 4.3 ms^{-1} D. 1.1 ms^{-1}
22	At the starting point of the free fall motion of an object, its acceleration will be	A. maximum B. minimum C. zero D. none of them
23	The body will move with terminal velocity when it acquires	A. minimum speed B. zero speed C. maximum speed D. none of them
24	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
25	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
26	When a water droplet falls through air, the net force on it is	A. Net force = drag force - weight B. Net force = weight - drag force C. Net force = drag force + weight D. Net force = weight + drag force
27	When a water droplet falling freely through air, the drag force on water droplet increases with th	A. decrease in speed B. increase in speed C. pressure D. none of them
28	At low speeds, the drag force is	A. proportional to speed B. inversely proportional to speed C. not simply proportional to speed D. none of them
29	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
30	According to slok's law, drag force depends on	A. Radius of the spherical body B. Terminal velocity of body C. Coefficient of viscosity D. All of above