FLUID MECHANICS

Question No.	Question
1	The Reynolds number when flow changes from laminar to turbulent in a pipe flow is nearly: a) 20000 b)200 c)2000 d)20
2	The assumptions made in Bernoulli's equation: a) flow is along the stream line b) flow is steady c) fluid is non-viscous and homogenous d) all the above
3	The unit of kinematic viscosity is: a) m^2/s b)kg/m^2-s c)kgs/m^2 d)m/kgs
4	Steady flow occurs when : a) The pressure does not change along the flow b) Conditions do not change with time at any point c) The velocity does not change d) Conditions change gradually with time
5	The maximum efficiency of power transmission through the pipe is: a) 50% b)40% c)33% d)66.7%
6	The hydraulic gradient line is always: a) Parallel to the bottom b) Above the total energy line c) Same as centre line of section d) Below the total energy line
7	As the temperature increases, the viscosity of gas -------- and that of a liquid -----: a) Increases , decreases b) Decreases, increases c) Decreases, decreases d) Increases, increases
8	The specific gravity of water is taken as: a) 0.001 b)0.01 c)0.1 d)1
9	The mercury does not wet the glass. This is due to the property of the liquid known as: a) surface tension b)cohesion c) adhesion d)viscosity
10	The absolute pressure is equal to

FLUID MECHANICS

	a) gauge pressure + atmospheric pressure b) gauge pressure - atmospheric pressure c) atmospheric pressure - gauge pressure d) gauge pressure – vacuum pressure
11	The body will float if the force of bouncy is ----- the weight of the liquid displaced a) equal to b)less than c)more than d) half
12	One litre of water occupies volume of: a) $100cm^3$ b)$1000cm^3$ c)$1500cm^3$ d)$1m^3$
13	The velocity of liquid flowing through the divergent portion of a venturimeter a) remains constant b) increases b) decreases d) depends upon mass of liquid
14	Bernoulli's equation a) $Z + p/w + v^2/g$ =constant b) $Z - p/w + v^2/2g$ =constant c) $Z + p/w + v^2/2g$ =constant d) $Z - p/w - v^2/g$ =constant
15	The numerical value of 1Pa of pressure is equal to: a) $1N/m^2$ b)$1kN/m^2$ c)$1MN/m^2$ d)none
16	In a two-dimensional flow of fluid, if a velocity potential function $\emptyset$ exists which satisfies the relation $\partial^2\emptyset/\partial x^2 + \partial^2\emptyset/\partial y^2 = 0$, then the flow is : a) Steady incompressible b) Steady laminar incompressible c) Irrotational and incompressible d) Turbulent incompressible
17	The most efficient channel cross section is : a) Triangle b) Rectangular c) Circular d) Trapezoidal
18	The sheet of water flowing over a ogee spillway is called : a) Laminar b) Nappe c) Jet d) Stream
19	If vertical piezometer tubes are fitted at different points along the length of a pipe through which a liquid flowing, then the line joining the liquid level in a piezometer tubes is termed as :

FLUID MECHANICS

	a) Critical gradient b) Hydraulic gradient c) Equipotential line d) Hydraulic pressure line
20	Which one of the following is not a condition of equilibrium of a floating body? a) Stable equilibrium b) Unstable equilibrium c) Balanced equilibrium d) Neutral equilibrium