Program: Civil Engineering
Curriculum Scheme: Rev2016
Examination: Third Semester III
Course Code: CE-C-305 and Course Name: Fluid Mechanic-I

Time: 1-hour   Max. Marks: 50

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For the students: - All the Questions are compulsory and carry equal marks.

Q1.	Density of water _____ Kg/m³
Option A:	1500
Option B:	1000
Option C:	2000
Option D:	3000
Q2.	1 poise_____ NS/m²
Option A:	1/10
Option B:	1/100
Option C:	1/1000
Option D:	1/10000
Q3.	A real fluid, in which the shear stress is directly proportional to the rate of shear strain or velocity gradient is known as _____ fluid
Option A:	Ideal plastic
Option B:	Non-Newtonian
Option C:	Newtonian
Option D:	Compressible
Q4.	1 atmospheric pressure _____m of water.
Option A:	14.328
Option B:	16.328
Option C:	15.328
Option D:	10.328
Q5.	The pressure intensity at a point in a fluid is given by 3.924N/cm^2. find the corresponding height of water at that point
Option A:	8m
Option B:	4m
Option C:	6m
Option D:	3m
Q6.	A rectangular plane surface is 2m wide and 3 m deep. It lies in vertical plane in water. Determine the total force on the plane surface when its upper edge is horizontal Coincides with water surface.
Option A:	78290N
Option B:	88290N
Option C:	68290N
Option D:	58290N

Q7.	When a body is immersed in a fluid an upward force is exerted by the fluid on the body. The magnitude of upward force can be determined by _____ principles.
Option A:	Pascal
Option B:	Archimedes
Option C:	Continuity
Option D:	Momentum
Q8.	A circular plate of diameter 1.5 m which is placed vertically in water in such a way that the center of the plate is 3m below the free surface of water. Find the position of centre of pressure.
Option A:	3.0468m
Option B:	4.0468m
Option C:	5.0468m
Option D:	7.0468m
Q9.	If flow in which the fluid characteristics like velocity, pressure, density etc.. at a point do not change with time then that type of flow is called
Option A:	Steady
Option B:	Unsteady
Option C:	Compressible
Option D:	Incompressible
Q10.	If the Reynolds number is less than 2000 the flow is called
Option A:	Laminar
Option B:	Turbulent
Option C:	Both A & B
Option D:	Neither A Nor B
Q11.	_____ is defined as that type of flow in which the velocity at any given time does not change with respect to space (i.e length of direction of the direction of flow.
Option A:	Non- Uniform Flow
Option B:	Uniform Flow
Option C:	Both A & B
Option D:	Neither A Nor B
Q12.	The diameter of a pipe at the section 1 and 2 are 10 cm and 15 cm respectively. Find the discharge through pipe if the velocity of water flowing through the pipe at section 1 is 5 m/sec.
Option A:	0.03926 m³/sec
Option B:	0.3926 m³/sec
Option C:	1.03926 m³/sec
Option D:	926 m³/sec
Q13.	_____ is defined as a scalar function of space and time such that negative derivative with respect to any direction gives the fluid velocity in that direction.
Option A:	Stream Function.

Option B:	Velocity Potential Function.
Option C:	Laminar
Option D:	Equipotential
Q14.	A grid obtained by drawing a series of equipotential lines and stream lines is called _____
Option A:	Flow net.
Option B:	Irrotational.
Option C:	Local acceleration.
Option D:	Convective acceleration.
Q15.	Water is flowing through a pipe of 5cm Diameter under a pressure of 29.43N/cm^2 (gauge) and with a mean velocity of 2 m/sec. Find the total head or total energy per unit weight of the water at cross-section which is 5m above the datum line.
Option A:	24.305 m.
Option B:	44.305 m.
Option C:	29.305 m.
Option D:	35.203 m.
Q16.	Assumption made in the derivation of Bernoulli's equation:
Option A:	The fluid is incompressible.
Option B:	The flow is steady.
Option C:	Both A & B
Option D:	Neither A Nor B
Q17.	A pipe through which water is flowing is having diameter 20 cm and 10 cm at cross-section 1 and 2 respectively. The velocity of water at section 1 is given 4 m/s. Find velocity head at section 1?
Option A:	0.415 m
Option B:	0.815 m
Option C:	0.615 m
Option D:	0,215 m
Q18.	If the total energy at point M is greater then total energy at point N. then direction of flow will be
Option A:	N to M
Option B:	M to N
Option C:	Both A & B
Option D:	Neither A Nor B
Q19.	If the head of liquid is less than 5 times the depth of orifice, the orifice is called _____ orifice
Option A:	Large
Option B:	Small
Option C:	Fully submerged
Option D:	partially submerged

Q20.	The sheet of water flowing through a notch or weir is called _____
Option A:	Pressure
Option B:	Force
Option C:	Nappe
Option D:	Irrotational
Q21.	The head of water over the center of an orifice of diameter 20 mm is 1m. The actual discharge through the orifice is 0.85 lit/sec. find the coefficient of discharge?
Option A:	0.11
Option B:	0.21
Option C:	0.61
Option D:	0.91
Q22.	The head of water over a rectangular notch is 900 mm. the discharge is 300 lit/sec. Find the length of notch, when Cd=0.62
Option A:	250 mm
Option B:	350 mm
Option C:	121 mm
Option D:	192 mm
Q23.	The bottom edge of a notch or top of a weir over which the water flows is known as _____
Option A:	Crest or Sill
Option B:	Vein
Option C:	Both A & B
Option D:	Neither A Nor B
Q24.	_____ is the flow in which fluid moves radially inwards towards at a point where it disappears at a constant rate.
Option A:	Source.
Option B:	Sink.
Option C:	Uniform.
Option D:	Non-Uniform.
Q25.	_____ is defined as the ratio of the actual discharge from an orifice to the theoretical discharge from the orifice.
Option A:	Coefficient of Discharge.
Option B:	Coefficient of velocity.
Option C:	Coefficient of contraction.
Option D:	Coefficient of power.