Program: BE Civil Engineering

Curriculum Scheme: Revised 2012

Examination: Second Year Semester IV

Course Code: CEC 406 and Course Name: Fluid Mechanics - II

Time: 1 hour Max. Marks: 50

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

Q1.	How do we determine the total discharge through parallel pipes?
Option A:	Add the discharges
Option B:	Subtract the discharges
Option C:	Multiply the discharges
Option D:	Divide the discharges
Q2.	HGL is the …….
Option A:	Pressure head
Option B:	Summation of pressure head and datum head
Option C:	Summation of pressure head, datum head and kinetic head
Option D:	Kinetic head
Q3.	If the two reservoirs are kept at same level, the headloss is …….
Option A:	0
Option B:	1
Option C:	2
Option D:	3
Q4.	Viscosity is defined as …….
Option A:	Resistance to movement of a solid object
Option B:	Resistance to the movement of a fluid
Option C:	Resistance to transfer of heat
Option D:	None of the above
Q5.	The exit velocity in a nozzle increases as per
Option A:	Continuity equation
Option B:	Stagnation point

Option C:	Prandtl number
Option D:	Newton's law
Q6.	With the increase in pressure, the exit velocity……..
Option A:	Decreases
Option B:	Increases
Option C:	Remains same
Option D:	Behaves independently
Q7.	What is the condition for the maximum power transmitted through nozzle?
Option A:	$H = 2h_f$
Option B:	$H = h_f$
Option C:	$H = 3h_f$
Option D:	$H = 1/3h_f$
Q8.	Nozzle is a ……. short tube which is fitter at the outlet end of a pipe.
Option A:	Suddenly converging
Option B:	Suddenly diverging
Option C:	Gradually converging
Option D:	Gradually diverging
Q9.	What is the head available at the end of a pipe?
Option A:	$H * h_f$
Option B:	$H - h_f$
Option C:	$H + h_f$
Option D:	H / h_f
Q10.	How can we determine whether the flow is laminar or turbulent?
Option A:	Reynold's number
Option B:	Mach number
Option C:	Froude's number
Option D:	Knudsen number
Q11.	With the decrease in viscosity, Reynold's number ……
Option A:	Decreases
Option B:	Increases
Option C:	Remains same
Option D:	Behaves independently

Q12.	Where does the maximum velocity occur in a circular pipe when the flow is laminar?
Option A:	At the top of the pipe
Option B:	At the bottom of the pipe
Option C:	At the centre of the pipe
Option D:	All along the circumference of the flow
Q13.	Out of the following, where can the water hammer phenomenon develop?
Option A:	Reservoir
Option B:	Turbine blades
Option C:	Pipeline
Option D:	Canal
Q14.	What is the aim of the pipe network analysis?
Option A:	To determine the mass of fluid
Option B:	To determine the volume of fluid
Option C:	To determine the flow rates and pressure drops
Option D:	To determine the cross section of the pipe
Q15.	Due to which of the following phenomena water hammer is caused?
Option A:	Incompressibility of fluid
Option B:	Sudden opening of a valve in a pipeline
Option C:	The material of the pipe being elastic
Option D:	Sudden closure of a valve in pipe flow
Q16.	For solving the problems of pipe network, the conditions to be satisfied are as____
Option A:	The flow into each junction must be equal to the flow out of the junction.
Option B:	In each loop the loss of head dur to flow in clockwise direction must be equal to the loss of head due to flow in anticlockwise direction.
Option C:	The Darcy-Weisbach equation must be satisfied for flow in each pipe
Option D:	All of these
Q17.	Compressible flow is a flow that deals with _____
Option A:	Fluid temperature
Option B:	Fluid pressure
Option C:	Fluid density
Option D:	Fluid geometry
Q18.	In fluid dynamics, the velocity of the fluid in the stagnation point is.....
Option A:	Zero

Option B:	Infinite
Option C:	Non-existant
Option D:	Negative
Q19.	The region outside the Mach cone is called.....
Option A:	zone of action
Option B:	zone of silence
Option C:	Control volume
Option D:	Stagnation point
Q20.	Which of the following is an example of turbulent flow?
Option A:	Smoke rising from cigarette
Option B:	Flow on a symmetric aerofoil
Option C:	Flow on a symmetric hydrofoil
Option D:	None of these
Q21.	Find the maximum power transmitted by a jet of water discharging freely out of nozzle fitted to pipe carries water at 0.026 m3/s. The available Head at the outlet of nozzle is 120 m.
Option A:	30.60 KW
Option B:	20.21 KW
Option C:	25.20 KW
Option D:	21.20 KW
Q22.	Which among the following is not a minor loss that is developed in the pipe?
Option A:	Entry
Option B:	Exit
Option C:	Bend
Option D:	Friction
Q23.	TEL is ……
Option A:	pressure head
Option B:	summation of Pressure head and datum head
Option C:	summation of pressure head and kinetic head
Option D:	summation of pressure head, datum head, and kinetic head
Q24.	What is the dimension for drag coefficient?
Option A:	Newton/s
Option B:	m/s
Option C:	kg/N

Option D:	Dimensionless
Q25.	Bodies with a larger cross section will have_____
Option A:	Lower drag
Option B:	Higher drag
Option C:	Same drag
Option D:	No drag