END SEMESTER EXAMINATION

SEMESTER- IV

COURSE CODE : CE-402 **DURATION :3 (THREE)HRS**
COURSE TITLE : HYDRAULICS **MAXIMUM MARKS : 75**
SESSION : JULY-DEC'2021 **PASS MARKS : 35 %**

NOTE: *1. Attempt any 5(five) questions.*
2. Mark for each question is shown against it.
3. Assume suitable logical data wherever necessary.

1.	**(a)**	State Bernoulli's Theorem. Write its applications and limitations?	**(2+6)**
	(b)	What are the different types head losses in a pipe? Explain each type.	**(7)**
2.	**(a)**	Explain the variation of Viscosity of gas and liquid with change in temperature?	**(3)**
	(b)	Describe any 6 properties of fluid.	**(6x2)**
3.	**(a)**	Distinguish between : 1. Orifice and Venturimeter 2. Notch and Weir 3. Total energy line and Hydraulic gradient line 4. Floatation and Buoyancy 5. Fluid dynamics and Fluid kinematics	**(5x3)**
4.	**(a)**	Describe different types of flow through pipes.	**(8)**
	(b)	Explain the phenomenon of hydraulic jump. And write short note on its types.	**(7)**
5.	**(a)**	What is an Open channel flow? Why it is important to study about channel flow?	**(2+3)**
	(b)	Explain different types of Weirs.	**(5)**
	(c)	Write the significance of Reynolds number.	**(5)**
6.	**(a)**	Explain with a neat sketch the different devices used for measurement of fluid pressure.	**(9)**
	(b)	Define : 1. Gauge pressure 2. Absolute pressure 3. Vacuum pressure	**(3x2)**
7.	**(a)**	Write the importance of Buoyancy in Hydraulics.	**(5)**
	(b)	What is the Total pressure of an immersed surface?	**(3)**
	(c)	What are the different conditions of equilibrium of floating body? Explain briefly.	**(7)**
8.		Descibe briefly : **a)** Equation of continuity **b)** Archimedes principle **c)** Surface Tension **d)** Head loss **e)** Intensity of Pressure	**(5x3)**

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