ID. No/Seat No.



$\frac{\text{MEHRAN UNIVERSITY OF ENGINEERING \& TECHNOLOGY,}}{\text{JAMSHORO}}$

FINAL SEMESTER EXAMINATION 2023 OF THIRD SEMESTER SECOND YEAR (21-BATCH) OF B.E (PETROLEUM & NATURAL GAS ENGINEERING)

FLUID MECHANICS (CE-263)

Dated: 08/04/2023		Time: 02 HOURS (2 C.H)	Max. Marks-30		
Note:	ATTEMPT ANY TWO QUESTIONS.				
			CLO	Taxonomy	Marks
				Level	
Q.No.01 <u>a)</u>	Derive an expression for the surface forces acting in the X-direction for the conservation of the momentum equation.			C5	5
b)	Bernoulli's equation can be viewed as a conservation of energy law for a flowing fluid $P + \frac{1}{2} \rho V^2 + \rho g h = C$. Demonstrate the underlying concept behind Bernoulli's equation		2	C3	5
Q.No.02 a)	process and concept b	ehind the continuity equation $w + \frac{\partial \rho w}{\partial x} \delta z \int \delta x \delta y$ $\left(\rho u + \frac{\partial \rho u}{\partial x} \delta x\right) \delta y \delta z$	2	C2	10
Q.No.03 a)	Discuss the individual centrifugal pumps	efficiencies that affect the operation of	3		5
b)	Classify the types of a	ir compressors	3		5

Name of Subject 1	Teacher: Engr. Mukhtiar Ali Talpur	
	The End	