



ID. No/Seat No.

**MEHRAN UNIVERSITY OF ENGINEERING & TECHNOLOGY,  
JAMSHORO**

FINAL SEMESTER EXAMINATION 2022 OF THIRD SEMESTER SECOND YEAR  
(20-BATCH) OF B.E (PETROLEUM & NATURAL GAS ENGINEERING)

**FLUID MECHANICS  
(CE-263)**

Dated: 27/05/2022		Time: 02 HOURS (2 C.H)		Max. Marks-30	
Note:	ATTEMPT ANY TWO QUESTIONS.				
		CLO	Taxonomy Level	Marks	
Q.No.01 a)	In the light of Newton’s Law of viscosity, Analyze the relationship between the rate of shear stress and the rate of shear strain. Support your discussion with the help of graphs.	1	C4	5	
b)	The intensity of pressure at a point in a FLUID AT REST is the same in all the directions, says the Pascal Law. Analyze the pressure intensity for rigid bodies in the light of Pascal’s law.	1	C4	5	
Q.No.02 a)	Demonstrate the conservation of energy law for a flowing fluid by deriving Bernoulli’s Equation.	2	C3	5	
b)	Demonstrate the working principle of compressors and the factor which the performance of compressors	2	C2	5	
Q.No.03 a)	The rate of change in linear momentum of a volume moving with a fluid is equal to the surface forces and the body forces acting on a fluid. Illustrate this concept by deriving the momentum equation	2	C3	7	
b)	Demonstrate different parts of venture meter.	2	C2	3	

**Name of Subject Teacher:** Engr. Mukhtiar Ali Talpur

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