MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY, JAMSHORO

FINAL SEMESTER EXAMINATION 2024
3rd SEMESTER (REGULAR)
B.E (PETROLEUM ENGINEERING) (23- BATCH)

SUBJECT (Code)   **FLUID MECHANICS (CE-261)**

Dated: 22-11-2024   Time Allowed: 1 Hours (2 C.H)   Max: Marks: 25

NOTE : ATTEMPT ALL QUESTIONS.

Q.No. 01	12 Marks

Derive the **Continuity Equation** in Cartesian coordinates for an incompressible fluid, starting from the principle of conservation of mass. Clearly explain each step and the assumptions made during the derivation
(**CLO-2:C4, PLO-4**)

Q.No. 02	8 MarksB

Prove **Bernoulli's Equation** by applying the principle of conservation of energy for fluid flow, and demonstrate how the different forms of energy (pressure energy, kinetic energy, and potential energy) remain constant between two points in a streamline flow. Clearly explain the assumptions and steps in your proof (**CLO-2:C4, PLO-4**)

Q.No. 03	5 Marks

Describe the working principle of a compressor and how its components contribute to the compression process (**CLO-3:C3, PLO-5**)

Name of Subject Teacher: Engr. Mukhtiar Ali Talpur

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