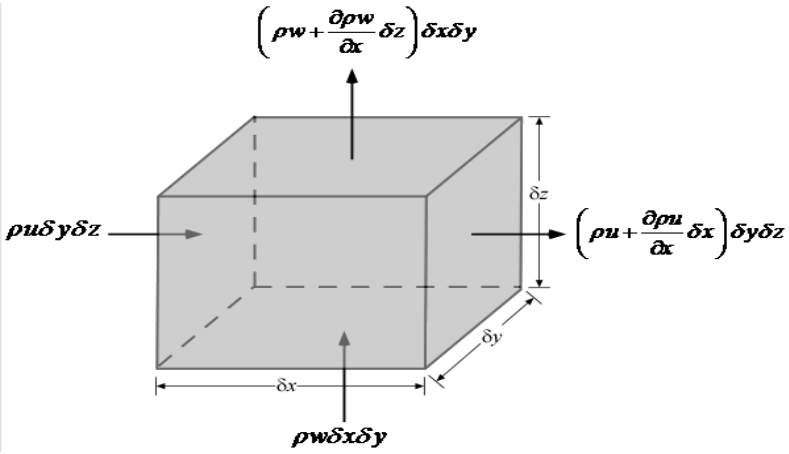
ID. No/Seat No.

MEHRAN UNIVERSITY OF ENGINEERING & TECHNOLOGY, JAMSHORO

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

FLUID MECHANICS (CE-263)

Dated: 7/03/2022	Time: 45 MINTS (2 C.H)	Max. Marks-10
Note:	**ATTEMPT ANY TWO QUESTIONS.**	

		CLO	Taxonomy Level	Marks
Q.No.01 **a)**	In the light of the following figure, Demonstrate and drive continuity equation in 3-dimensional Cartesian coordinates based on the cubical control volume. 	1	C3	3
b)	A liquid at 20^{O}C has a relative density of 0.8 and a kinematic viscosity of 2.3 centistokes. Calculate its unit weight and dynamic viscosity in Pa.s.	1	C3	2
Q.No.02 a)	Discuss the Fluid Rheology models with the help of a diagram.	1	C2	3
b)	If the velocity distribution of a plate is given by $U = 2/3\ y - y^2$. Where y is the distance from the solid boundary in meters, U is the velocity in m/s. Determine shear stress at y = 0 m and y = 0.15m. μ= 8.63 poise	1	C2	2

Name of Subject Teacher: Engr. Mukhtiar Ali Talpur

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