

Reg.No.:

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VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN
 [AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]
 Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

Question Paper Code: 10001

B.E. / B.Tech. DEGREE END-SEMESTER EXAMINATIONS – NOV. / DEC. 2024

Third Semester

Biotechnology

U15GE305 – FLUID MECHANICS AND MOMENTUM TRANSFER

(Regulation 2015)

Time: 3.00 Hours

Maximum: 100 Marks

Answer ALL the questions

Knowledge Levels (KL)	K1 - Remembering	K3 -Applying	K5 - Evaluating
	K2 -Understanding	K4- Analyzing	K6 - Creating

PART – A

(10 x 2 = 20 Marks)

Q.No.	Questions	Marks	KL	CO
1.	Define weight fraction and mole fraction.	2	K1	CO1
2.	State ideal gas law.	2	K2	CO1
3.	Define the newton viscosity.	2	K2	CO2
4.	What is the assumption made in Bernoulli's equation?	2	K2	CO2
5.	Draw laminar flow velocity profile.	2	K3	CO3
6.	Define center of buoyancy.	2	K3	CO3
7.	State the factor affecting filtration.	2	K2	CO4
8.	Sketch pitot tube and explain how it is used to measure the velocity of fluid?	2	K1	CO4
9.	What is application of compressor?	2	K1	CO5
10.	Differentiate pump and compressor.	2	K2	CO5

PART – B

(5 x 13 = 65 Marks)

Q.No.	Questions	Marks	KL	CO
11. a)	Derive the equation for hydrostatic equilibrium in the centrifugal field.	13	K1	CO1

