Model Question Paper-1/2 with effect from 2022-23 (CBCS Scheme)

USN | | | | | | | | | | |

Sixth Semester B.E. Degree Examination
Computer Application and Modelling

TIME: 03 Hours **Max. Marks: 100**

Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.
02.
03.

		Module -1	*Bloom's Taxonomy Level	Marks
Q.01	a	Write C Program to calculate Molar Volume of Binary mixture using Newton Raphson Method.	L2	12
	b	Write Algorithm for Gauss Jordan method for solving linear algebraic equation.	L1	08
		OR		
Q.02	a	Write C Program for determination of Average specific heat capacity using Simpsons 1/3rd Rule.	L2	12
	b	Write Algorithm to find concentration in a batch reactor by Ordinary differential Equation using R K Method.	L2	08
		Module-2		
Q. 03	a	Define Bubble point. Write Algorithm and C Program to generate P-x-y data for a binary system using Bubble pressure Calculations.	L2	20
		OR		
Q.04	a	Define Dew Point. Write Algorithm and C Program for Dew pressure calculations for ideal multi component liquid system.	L2	20
		Module-3		
Q. 05	a	Write Algorithm and C Program for the design of an adiabatic PFR with elementary reversible gas phase reaction A↔R.	L2	15
	b	Write Algorithm for Adiabatic Batch reactor.	L1	05
		OR		
Q. 06	a	Write Algorithm and C Program to calculate area, number of tubes and pressure drop in Shell and Tube heat exchangers.	L2	20
		Module-4		
Q. 07	a	Write Algorithm and C Program to calculate number of plates and column dimensions and design of distillation column.	L2	20
		OR		
Q. 08	a	Write C Program for design of Distillation Column.	L2	20
		Module-5		
Q. 09	a	Explain classification of Mathematical models with suitable examples.	L2	10
	b	Discuss Continuity equation and its application in modeling.	L2	10
		OR		
Q. 10	a	Explain modeling of Simple tank.	L2	10
	b	Explain method of calculation of outlet concentration in tanks in series.	L2	10

*Bloom's Taxonomy Level: Indicate as L1, L2, L3, L4, etc. It is also desirable to indicate the COs and POs to be attained by every bit of questions.