

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***UG/PG DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL/MAY 2026***Second Semester**Chemical Engineering***CH3251 / UCHT24201- INTRODUCTION TO CHEMICAL ENGINEERING***Regulations – 2021 & 2024**Duration : 3 Hrs**Maximum : 100 Marks****PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)***

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	Name the unit operations for solid-liquid separation.	L1	1	2
2.	Mention the dimensions for viscosity.	L1	1	2
3.	Compare elementary and non-elementary reactions.	L2	2	2
4.	What are the three modes of heat transfer?	L1	2	2
5.	Define viscosity.	L1	3	2
6.	What is mean by dimensional analysis?	L2	3	2
7.	Name any two chemical engineering software.	L1	4	2
8.	Recall the advantages of computation using Microsoft excel.	L1	4	2
9.	What is the role of a commissioning engineer?	L1	5	2
10.	Outline the opportunities for a chemical engineer in Pharmaceutical sector.	L2	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a i Exemplify the chemical engineering applications in everyday life.	L2	1	8
	ii Classify the unit operations and unit processes.	L2	1	8
	Or			
	b i Illustrate the history of chemical engineering.	L2	1	8
	ii Outline the applications of mathematics in chemical engineering.	L2	1	8
12.	a Explain the various mode of heat transfer the laws governing the modes of heat transfer.	L5	2	16
	Or			
	b Explain in detail about process flow sheeting and the symbols used.	L5	2	16
13.	a i Write short note on: Nature of fluids and flow fields.	L2	3	8
	ii Explain the types and methods of pumping of fluids.	L2	3	8
	Or			
	b With a suitable example explain the Buckingham's method of dimensional analysis.	L2	3	16

14.	a	Illustrate the importance and applications of Process Engineering Design Software.	L2	4	16	
		Or				
	b	Demonstrate the significance and applications of Computer-Aided Design and Piping Software.	L2	4	16	
15.	a	i	Analyze the role of a Process Safety Engineer in a chemical process plant.	L3	5	8
		ii	Examine the importance of a chemical engineer in the Research & Development sector.	L3	5	8
		Or				
	b	i	Analyze the role of a Process Control and Automation Engineer.	L3	5	8
		ii	Analyze the role of chemical engineers in atmospheric pollution control.	L3	5	8
