Register No : _____

THE KAVERY ENGINEERING COLLEGE

(An Autonomous Institution)

B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2025

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)

Q.No	*Questions*	*BLT*	*CO*	*Marks*
1.	Outline out the role of chemical Engineers.	L2	1	2
2.	Define pH.	L1	1	2
3.	Define Dalton's Law.	L1	2	2
4.	Classify between exothermic and endothermic reactions.	L2	2	2
5.	State fanning friction factor.	L1	3	2
6.	Recall the Hagen-Poiseuille equation.	L1	3	2
7.	Label the significances of ASPEN HYSYS.	L1	4	2
8.	Why MS EXCEL in widely used in chemical engineering?	L1	4	2
9.	What is meant by commissioning Engineering?	L1	5	2
10.	List out the various methods involved in HAZOP analysis.	L1	5	2

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

Q.No			*Questions*	*BLT*	*CO*	*Marks*
11.	a	i	Illustrate a short note on different type of chemical industries.	L2	1	8
		ii	Infer in detail about the role of mathematics in Chemical engineering?	L2	1	8
			Or			
	b		Explain with a brief a note on day today life chemical engineering application.	L2	1	16
12.	a		Explain in detail about various steps involved in Material balance.	L3	2	16
			Or			
	b		With the help of a neat diagram describe the manufacture of	L3	2	16

Soda ash by Solvay process.

13.	a	Derive Bernoulli's Equation with neat schematic diagram.	L2	3	16
		Or			
	b	Summarize in detail about working principles, design and applications of centrifugal pump.	L2	3	16
14.	a	Explain in detail about the process engineering design software PRO II.	L2	4	16
		Or			
	b	Write detailed notes on piping and equipment design software.	L2	4	16
15.	a	Demonstrate in detail about Chemical Engineering job Titles and career options.	L2	5	16
		Or			
	b	Explain the roles and responsibilities of Process Control and Automation Engineers.	L2	5	16