

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL/MAY 2026***Sixth Semester**Mechanical Engineering***CME366 - Equipment for Pollution Control***Regulations - 2021**Duration : 3 Hrs**Maximum : 100 Marks***PART - A (ANSWER ALL QUESTIONS) (Marks 10*2=20)**

<i>Q.No</i>	<i>Questions</i>	<i>BTL</i>	<i>CO</i>	<i>Marks</i>
1.	List two sources of wastewater.	L1	1	2
2.	What is hazardous waste?	L2	1	2
3.	Define flash mixing.	L1	2	2
4.	Mention two differences between centrifugal and reciprocating pumps.	L2	2	2
5.	State any two factors affecting collection efficiency.	L2	3	2
6.	Classify wet scrubbers into types.	L2	3	2
7.	Name any two-dewatering equipment.	L2	4	2
8.	Outline the application of incineration?	L2	4	2
9.	What is the primary function of dust and smoke detectors in air quality monitoring?	L2	5	2
10.	Define ambient air monitoring	L1	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 Explain Environmental Impact Assessment (EIA) and its significance.	L2	1	10
	ii Discuss the impacts of water pollution on human health.	L2	1	6
	Or			
	b i Describe biomedical waste management rules and their implementation.	L2	1	10
	ii Differentiate unit operations and unit processes.	L2	1	6
12.	a i Explain the working, types, and design of clarifiers with neat sketches.	L2	2	10
	ii Describe the design considerations of flocculators.	L2	2	6
	Or			
	b i Discuss different types of valves and fittings with applications.	L2	2	10
	ii Discuss the working of distillation units.	L2	2	6

13.	a	i	Explain the design and working of a cyclone separator with neat diagram.	L3	3	10
		ii	Discuss the factors affecting the efficiency of cyclone separators.	L3	3	6
Or						
	b	i	Explain the construction, working and advantages of electrostatic precipitators.	L3	3	10
		ii	Discuss maintenance requirements of electrostatic precipitators.	L3	3	6
14.	a	i	Describe size reduction equipment and screening devices used in solid waste management.	L2	4	10
		ii	Explain incineration and pyrolysis as solid waste treatment methods.	L2	4	6
	Or					
	b	i	Categorize the critical design criteria for dewatering equipment Filter Presses and explain in detail.	L2	4	10
15.		ii	Select the purpose of a Trommel screen in waste segregation?	L2	4	6
	a	i	Explain the importance of sample preservation and the role of incubators and cold storage systems.	L2	5	10
		ii	Explain the working principle of a Stack Gas Analyzer.	L2	5	6
	Or					
	b	i	Describe modern techniques used in pollution monitoring.	L2	5	10
		ii	Compare stack monitoring and ambient air monitoring methods.	L2	5	6