Register No : _____

THE KAVERY ENGINEERING COLLEGE

(An Autonomous Institution)

UG/PG DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2026

Sixth Semester

Civil Engineering

CCE334 INDUSTRIAL WASTEWATER MANAGEMENT

Regulations - 2021

Duration : 3 Hrs ***Maximum : 100 Marks***

PART – A(ANSWER ALL QUESTIONS) (Marks 10*2=20)

Q.No	*Questions*	*BLT*	*CO*	*Marks*
1.	Mention the objectives of Industrial Wastewater Management.	K1	1	2
2.	What is meant by industrial pollution? Indicate the effects of industrial waste discharge on streams.	K2	1	2
3.	What do you mean by waste auditing?	K1	2	2
4.	Give an example of recovery of material with reference to a particular industry.	K1	2	2
5.	Mention the characteristics of effluent from an oil refinery.	K1	3	2
6.	Define Heavy metal.	K1	3	2
7.	What are the advantages of Joint treatments of Industrial wastewater?	K1	4	2
8.	Distinguish between ‘Conditioning’ and ‘Dewatering’ of sludge.	K2	4	2
9.	What is the composition of steel industry wastewater?	K1	5	2
10.	outline is the important pollutants from distillery industry.	K2	5	2

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

Q.No			*Questions*	*BLT*	*CO*	*Marks*
11.	a	i	Explain how waste water management is accomplished in India.	K2	1	08
		ii	Summarize the sources and types of wastewater in Industry.	K2	1	08
			Or			
	b	i	Explain how the pH level of an industrial effluent can affect its toxicity to aquatic organisms.	K2	1	08
		ii	How does wastewater management impact the environment and human health in India, and what are the consequences of inadequate wastewater Management.	K2	1	08
12.	a		Explain in detail the waste water management Hierarchy.	K2	2	16
			Or			
	b		Explain in detail the implementing and promoting pollution prevention programs in industries.	K2	2	16
13.	a	i	Summarize a note on Heavy metal removal processes from the waste water.	K2	3	10
		ii	Identify the principle involved in reverse osmosis process.	K2	3	06
			Or			
	b	i	Identify the principle involved in adsorption and chemical oxidation Process.	K2	3	10
		ii	Experiment with in details about the biological treatment processes its advantages and disadvantages.	K2	3	06
14.	a		Describe the concept, principle, advantages and limitation of zero effluent discharge system in industries.	K1	4	16
			Or			
	b	i	Write in details about the quantification and characteristics of sludge.	K1	4	08
		ii	Give an account on management of RO rejects.	K1	4	08

15.	a	With the help of the flow chart and explain in detail the processes of sugar and distillery industry waste water treatment.	K3	5	16
		Or			
	b	With a help of the flow chart show the manufacturing processes of a Textile industry and explain the waste treatment.	K3	5	16

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