

Register No : _____

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

M.E DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024

Second Semester

Environmental Engineering

EV4201- Biological Treatment Process for Waste Water

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>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	Write any two objectives of biological treatment.	UN	1	2
2.	Define hydraulic profile.	RE	1	2
3.	What is meant by RBC?	UN	2	2
4.	Comment about nutrient removal system.	AN	2	2
5.	What is meant by reclamation of wastewater?	RE	3	2
6.	Write any two application of membrane separation technologies in reuse of sewage.	UN	3	2
7.	What do you understand by UASB?	RE	4	2
8.	List the important points in anaerobic ammonium oxidation process.	AP	4	2
9.	What is meant by sludge digestion?	UN	5	2
10.	What are the maintenance problems in STP?	RE	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*13 = 65)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a Explain the principles of aerobic and anaerobic treatment with neat sketch. Or b How do you determination the kinetic coefficients for organics removal process?	AN	1	13
12.	a Discuss about activated sludge process and its variations. Or b Describe the disinfection process in wetland systems with diagrams.	AP	2	13
13.	a Explain about membrane bioreactor process with neat sketch. Or b Write any one case study for advanced aerobic treatment processes of wastewater.	EV	3	13

14.	a	Explain about post treatment systems for UASB reactor.	AN	4	13
		Or			
	b	Discuss about anaerobic ammonium oxidation process with the help of flow diagram.	AN	4	13
15.	a	Briefly explain about sludge management system.	UN	5	13
		Or			
	b	Propose the recent trends used in sludge dewatering system.	UN	5	13

*PART – C (Marks 1*15 = 15)*

<i>Q.No</i>		<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
16.	a	Develop the new conventional aerobic treatment processes.	CR	2	15
		Or			
	b	How do you troubleshoot while cleaning septic tank process? Explain disposal system.	CR	4	15