R18 Regulation *Subject code:2P6AA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VI Semester Supplementary Examinations, May 2025

ENVIRONMENTAL ENGINEERING

(CE)

Maximum Marks: 70 Date: 16.06.2025 Duration: 3 hours

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X2M=20 Marks)		Marks	CO	BTL
1	What is meant by water borne diseases?	2M	1	L1
2	Classify the various sources of water.	2M	1	L1
3	Mention the need for protected water supply.	2M	2	L1
4	List out any two differences between slow and rapid sand filter.	2M	2	L1
5	What is meant by sewage and sullage?	2M	3	L1
6	List out type of sewer appurtenances.	2M	3	L1
7	What are the factors influence anaerobic digestion	2M	4	L1
8	What are the types trickling filter?	2M	4	L1
9	List out how to Control of gaseous pollutants.	2M	5	L1
10	Mention the terms of flume behavior.	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	The population data of 5 decades from 1930 to 1970 for a town is given below. Find out the population after one, two and three decades beyond the last known decade, by using (a) Arithmetic increase method (b) Geometric increase method.	10M	1	L2

Year	1930	1940	1950	1960	1970
Population	25,000	28,000	34,000	42,000	47,000

	OR			
12	a) Discuss in detail classification of sources of water. b) Explain in brief the various types of water demand.	5M 5M	1	L2
13	Elaborate different types of sedimentation tanks and explain any two with neat sketch.	10M	2	L2
	OR			
14	a) Explain in detail the theory of Filtration. b) What is meant by coagulation. Explain it with various chemical reactions.	5M 5M	2	L2
15	a) Write about briefly sewer appurtenances.	5M	3	L2

	b) Explain one pipe and two pipe systems of plumbing.	5M		
	OR			
16	Explain in detail the characteristics of sewage.	10M	3	L2
17	Discuss in detail with neat sketch of any one biological treatment units and its process.	10M	4	L2
	OR			
18	Discuss in detail about various sludge treatment and disposal methods.	10M	4	L2
19	Discuss in detail various types of pollutants and its effects on environment.	10M	5	L2
	OR			
20	Discuss in detail the control methods of air pollution.	10M	5	L2