



R22 Regulation

Subject code:4E6AB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Regular Examinations, May 2025

ENVIRONMENTAL ENGINEERING

(CE)

Maximum Marks: 60

Date: 18.06.2025

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 which carries 10M.
 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 (10X1M=10 Marks)		Marks	CO	BL
1	What are various types demands?	1M	1	BL1
2	What are the sources of water?	1M	1	BL1
3	What is the purpose of coagulation?	1M	2	BL1
4	Write the break point chlorination?	1M	2	BL2
5	Abbreviate the Terms B.O.D. and C.O.D.	1M	3	BL2
6	Distinguish between Wastewater and Storm Water.	1M	3	BL2
7	Sketch the layout and identify the various units of Wastewater Treatment Plant.	1M	4	BL1
8	What are the objectives of grit removal?	1M	4	BL1
9	Define Air Pollution.	1M	5	BL1
10	List out the Major Automobile Emissions.	1M	5	BL1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BL
11	a. Explain in detail about the various population forecasting methods.	5M	CO 1	BL3
	b. Write short note on Infiltration galleries.	5M	CO 1	BL2
OR				
12	a. Explain the significance and analysis of any four important physical characteristics and any four chemical characteristics of drinking water.	5M	CO 1	BL3
	b. Write a note on waterborne diseases and their control?	5M	CO 1	BL3
13	a. Draw a flow chart for treatment of public water supplies.	5M	CO 2	BL2
	b. Distinguish between slow sand filters and rapid gravity filters.	5M	CO 2	BL3
OR				
14	a. Illustrate the mechanism of coagulants added to wastewater.	5M	CO 2	BL4
	b. What do you understand by chlorination? Explain its action in killing bacteria?	5M	CO 2	BL3
15	a. Write a short note on sewage characteristics.	5M	CO 3	BL3
	b. Discuss briefly about sewer appurtenances.	5M	CO 3	BL4

	OR			
16	a. Explain sanitary fittings, one pipe, and two pipe systems of plumbing.	5M	CO 3	BL3
	b. Enlist any two types of pumps usually used in water supply systems and the main factors which are to be considered while selecting a suitable pump.	5M	CO 3	BL3
17	a. Explain the principal and working of the Activated Sludge processes.	5M	CO 4	BL3
	b. Explain the design and working principles of septic tank.	5M	CO 4	BL3
	OR			
18	a. Explain the Importance of sedimentation tank in Wastewater Treatment System.	5M	CO 4	BL3
	b. Write short note on Grit chambers and skimming tanks?	5M	CO 4	BL4
19	a. Define Air Pollution. Explain Primary and Secondary sources of air pollution.	5M	CO 5	BL3
	b. Explain the plume behavior and types of plume behavior with neat sketches.	5M	CO 5	BL3
	OR			
20	a. Explain the construction and working principle of settling chambers.	5M	CO 5	BL3
	b. Explain briefly the types of automobile pollution.	5M	CO 5	BL3