



R18 Regulation

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A' Grade)

Subject code: 2P6AA

B.Tech VI Semester Regular/ Supplementary Examinations, June 2022

ENVIRONMENTAL ENGINEERING (CIVIL ENGINEERING)

Maximum Marks: 70

Date: 17.06.2022 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

(10x2M=20 Marks)

- 1 Write notes on types of demands.
- 2 What is need for protected water supply?
- 3 Explain the theory of chlorination.
- 4 Explain coagulation-Flocculation.
- 5 What are the shapes and materials used in design of sewers?
- 6 Write about flushing tanks.
- 7 Sketch the layout and general outline of various units in a waste water treatment plant.
- 8 What is sewage farming?
- 9 List out various air pollution control equipment.
- 10 Mention the classification of air pollutants.

Part-B

Answer All the following questions.

(10MX 5=50Marks)

- 11 a) Explain in detail about any three population forecasting methods. [5]
b) The population for a certain town is given below. Find out the population in the year 2021 and 2031 by geometrical increase method. [5]

Year	1971	1981	1991	2001	2011
Population	75,000	1,10,000	1,50,000	2,00,000	2,42,000

OR

- 12 a) What are the fluctuations in water demand? [5]
b) Write detail about the water quality standards. [5]
- 13 Discuss in detail with the neat sketch of various water treatment processes. [10]
OR
- 14 a) With the help of sketches, discuss about the layouts of distributing systems. [5]
b) Compare the working of slow and rapid gravity filters. [5]
- 15 a) Explain the conservancy and water carriage system. [5]
b) Write briefly about sewer appurtenances. [5]

OR

- 16 Explain sanitary fittings, one pipe and two pipe systems of plumbing. [10]
- 17 a) Explain the principle and working of trickling filter. [5]
b) Write a detailed note on modified ASP. [5]
- OR
- 18 a) Define Aeration. [5]
b) Explain various Sludge treatment Processes. [5]
- 19 Explain in detail the various sources and effects of air pollution. [10]
- OR
- 20 Discuss in detail various air pollution issues and its control measures.
a) Ozone layer depletion
b) Acid rain
c) Global warming