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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech III Year II Semester Regular Examinations August-2022

ENVIRONMENTAL ENGINEERING

(Civil Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

- 1 List out the various methods of population forecasting and explain any two methods in detail. **L2 12M**

OR

- 2 The populations of 5 decades from 1960 to 2000 are given below in table. Find out the population 2010, 2020 & 2030 beyond the last known decade. **L3 12M**

By (i) Arithmetic increase method (ii) Geometrical method

Year	1960	1970	1980	1990	2000
Population	25000	28000	34000	42000	47000

UNIT-II

- 3 What are water borne diseases? Discuss its causes and preventive measures. **L2 12M**

OR

- 4 With a sketch, Explain the principle of working of rapid sand filter. **L2 12M**

UNIT-III

- 5 With neat sketch, explain the different types of layouts of water distribution system. **L2 12M**

OR

- 6 Compare the three systems of sewerage. **L2 12M**

UNIT-IV

- 7 Define activated sludge process and explain their operation including advantages and disadvantages. **L2 12M**

OR

- 8 Explain with the help of neat sketch, the construction and working of trickling filter. **L2 12M**

UNIT-V

- 9 Explain with a sketch, the method of sludge digestion in a digestion tank. **L2 12M**

OR

- 10 **a** What is soak pit and why it is necessary? **L1 6M**
b With neat sketch, explain the process of dispersion trench. **L2 6M**

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