O.P.Code: 20CE0125	R20	H.T.No.									

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

B.Tech III Year II Semester Regular Examinations August-2023

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	CO1	L2	12M
		OR			
2	a	What are the factors to be taken in consideration for the selection of source of water? Brief it.	CO1	L1	6M
	b	With neat sketch, explain the infiltration gallery in detail.	CO1	L2	6M

UNIT-II

3	a	Write short notes on types of screens.	CO2	L1	5M
	b	The maximum daily demand at a water purification plant has been estimated as 12 million litres per day. Design the dimensions of a suitable sedimentation tank for the raw supplies, assuming a detention period of 6 hours and the velocity of flow as 20cm per minute.	CO2	L4	7M
		OR			
4	a	Design a rapid sand filter to treat a city of population 100000 with an average per capita demand of 160 lpcd.	CO2	L4	5M
	b	Compare slow sand filter with rapid sand filter.	CO2	L2	7M

UNIT-III

5		With neat sketch, explain the different types of layouts of water distribution system.	CO3	L2	12M
		OR			
6	a	Explain the use of different materials of sewer and their suitability	CO4	L2	6M
	b	Explain about the various methods of ventilation of sewers.	CO4	L2	6M

UNIT-IV

7		Explain with the help of neat sketch the construction and working process of a conventional trickling filter.	CO5	L2	12M
		OR			
8		Define activated sludge process with their operation including advantages and disadvantages.	CO5	L2	12M

UNIT-V

9		Explain the factors affecting the sludge digestion.	CO6	L2	12M
		OR			
10		Discuss the criterion for design of a septic tank.	CO6	L2	12M

***** END *****