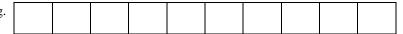
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QP Code:RD22BTECH089

## GIET UNIVERSITY, GUNUPUR - 765022

B. Tech (Third Semester) Examinations, December – 2023
21BHSHS20002/22BBSES23001 – Environmental Science and Engineering
(Civil)

Time: 3 hrs Maximum: 70 Marks (The figures in the right hand margin indicate marks) PART - A  $(2 \times 5 = 10 \text{ Marks})$ CO# Blooms Q.1. Answer *ALL* questions Level CO<sub>1</sub> L1 Write short notes on ferric sulphate and lime. CO1 L1 Explain any 3 factors effecting water demand. b. CO2 Write an example of any coagulant and its properties. L1 c. Write any 2 objectives of water treatment plant. CO3 L2 d. what is meant by acceptable noise levels. CO<sub>4</sub> L2 PART - B $(15 \times 4 = 60 \text{ Marks})$ CO# Marks Blooms Answer ALL questions Level CO1 L2 What is meant by pollution? Explain different types of pollution. 7 2. a. CO1 L3 b. Estimate the future population of a tow in 2001 by using geometrical increase 8 method 1911 1921 1931 1941 1951 1961 year 350000 466000 994000 1560000 16230000 18390000 populatio (OR) CO<sub>1</sub> L4 7 Design a circular sedimentation tank which has to supply daily 4.2 million litres water with a detention period of 4.5 hr and depth of 3.3m CO1 L3 8 d. Estimate the future population of a tow in 2000 by using decrease rate of growth method 1940 1950 1970 1980 1960 year 25000 28000 32500 40000 50000 population What are miscellaneous water treatment processes? Explain how colour odour CO<sub>2</sub> L2 15 3.a. and taste will be removed from water (OR) CO<sub>2</sub> L2 b. Explain how different coagulants reacts with waste water. 15 7 CO3 1.2 What is AQI? Explain different impacts on humans because of poor AQI. 4.a. CO3 L2 b. Explain cyclone separators with neat sketch. What are the operating problems 8

we will face while using these.

(OR)

c.	What are the AQI standards of different pollutants? Explain different category	7	CO3	L2
	o AQI.			
d.	Explain how sodium aluminate and ferric compounds.	8	CO3	L2
5.a.	What is meant by acceptable noise levels ? what are the acceptable noise	8	CO4	L2
	levels for different buildings.			
b.	What is noise pollution? Explain the effects of noise pollution.	7	CO4	L2
	(OR)			
c.	Briefly explain different methods to control noise pollution.	8	CO4	L2
d.	Explain different air pollution control equipment and their objectives.	7	CO4	L4

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