



GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-V (NEW) EXAMINATION – WINTER 2020

Subject Code:2150603

Date:03/02/2021

Subject Name:Environmental Engineering

Time:10:30 AM TO 12:30 PM

Total Marks: 56

Instructions:

1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
Q.1	(a) What is potable water? What are the properties of potable water?	03
	(b) Give the characteristics of water obtain from ground and surface water sources.	04
	(c) Give IS standards for drinking water in India.	07
Q.2	(a) Explain in brief “Eutrophication”.	03
	(b) Write short note on “Indicator organism”.	04
	(c) Explain the different zones of pollution of a polluted stream.	07
Q.3	(a) Explain working of bell type flushing cistern with sketch.	03
	(b) Define the following terms : (1)Sewage,(2) Rainwater pipe, (3)Waste pipe and (4) Traps.	04
	(c) State the principles of house drainage system.	07
Q.4	(a) Explain growth pattern of bacteria based upon the number.	03
	(b) Write a short note on sewage sickness.	04
	(c) Describe sanitary land filling on low lying areas.	07
Q.5	(a) Give the sanitary significance of turbidity and fluoride in water.	03
	(b) Give the composition of air and explain the structure of atmosphere.	04
	(c) Explain the different control measures for noise pollution.	07
Q.6	(a) State and explain classification of solid waste.	03
	(b) Define(i) Rubbish (ii) Composting (iii) COD (iv) Aerosol	04
	(c) The 5 days 30°C BOD of sewage is 250mg/litre. Calculate its 5 days 20°C BOD. Assume the deoxygenation constant at 20°C $K_D(20^\circ)$ as 0.1	07
Q.7	(a) Explain with sketch “Two pipe plumbing system”	03
	(b) Write short note on “Plasma Pyrolysis”	04
	(c) Explain the different physical water quality parameter of water.	07
Q.8	(a) Explain the different steps involved in conducting the environmental audits.	03
	(b) What is the role of EIA in sustainable development? Write goals of EIA.	04
	(c) Discuss in brie the different measures which can be used to control air pollution.	07
