Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–III • EXAMINATION – WINTER • 2014

Subject Code: 131302 **Date: 01-01-2015**

Subject Name: Environmental Microbiology

Time: 02.30 pm - 05.00 pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Differentiate between Prokaryotes and Eukaryotes.	**07**
	(b)	Draw a neat sketch of bacterial cell and explain its different parts.	**07**
Q.2	**(a)**	Explain the importance of Microbiology in Environmental Engineering field.	**07**
	(b)	Enlist and explain the methods of isolation of pure culture.	**07**
		OR	
	(b)	What is Eutrophication? Explain the measures to control Eutrophication.	**07**
Q.3	**(a)**	Explain the types of viruses with sketches.	**07**
	(b)	Enlist and explain the factors affecting antimicrobial action?	**07**
		OR	
Q.3	**(a)**	Give the classification of protozoa and explain any one type in detail.	**07**
	(b)	Write a short note on Chlorine and chlorine compounds for disinfection.	**07**
Q.4	**(a)**	Enlist and explain physical agents for control of microbes.	**07**
	(b)	Write a brief note on "History of Microbiology".	**07**
		OR	
Q.4	**(a)**	Write a short note on vinegar production using microbes.	**07**
	(b)	Draw neat sketch and explain working principle of Bright field Microscope.	**07**
Q.5	**(a)**	Explain the beneficial and harmful effects of algae on environment?	**07**
	(b)	Write a short note on MPN test for water.	**07**
		OR	
Q.5	**(a)**	Write the causes, symptoms, treatment and prevention of any two diseases.	**14**

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