

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

# **GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE - SEMESTER-III • EXAMINATION – SUMMER • 2014**

**Subject Code: 131302**

**Date: 04-06-2014**

**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) Explain the importance of Microbiology in Environmental Engineering field. **07**  
(b) Enlist and explain the methods of isolation of pure culture. **07**
- Q.2** (a) Differentiate between Prokaryotes and Eukaryotes. **07**  
(b) Draw a neat sketch of bacterial cell and explain its different parts. **07**
- OR**
- (b) What is Eutrophication? Explain the measures to control Eutrophication. **07**
- 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**
- OR**
- Q.3** (a) Explain the types of viruses with sketches. **07**  
(b) Enlist and explain the factors affecting antimicrobial action? **07**
- Q.4** (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.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) Enlist and explain physical agents for control of microbes. **07**  
(b) Write a brief note on “History of Microbiology”. **07**
- OR**
- Q.5** (a) Write the causes, symptoms, treatment and prevention of any two diseases. **14**

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