

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
