

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III • EXAMINATION – SUMMER 2013****Subject Code: 131302****Date: 04-06-2013****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)** Give the classification of bacteria with sketches. **07**
(b) Explain the significance of microbiology in the field of Environmental Engg. **07**

- Q.2 (a)** Write down the procedure for MPN test. **07**
(b) Write a short note on different types of stains and staining techniques. **07**

OR

- (b)** Write a brief note on History of Microbiology. **07**

- Q.3 (a)** Differentiate between Prokaryotes and Eukaryotes. **07**
(b) Enlist and explain the methods of isolation of pure culture. **07**

OR

- (a)** Differentiate between (i) Disinfection and Sterilization (ii) Antiseptic and Sanitizer **07**
(b) Write a short note on vinegar production using microbes. **07**

- Q.4 (a)** What is eutrophication? Explain the measures to control eutrophication. **07**
(b) Write important characteristics of viruses. **07**

OR

- (a)** Give the classification of protozoa and explain any one in detail with sketch. **07**
(b) Differentiate between dark field and bright field microscopy. **07**

- Q.5 (a)** Give the classification of fungi and explain any one in detail with sketch. **07**
(b) Enlist and explain the factors affecting antimicrobial action of disinfectant. **07**

OR

- Enlist the diseases caused by bacteria and viruses and explain the causes, symptoms, treatment and prevention of any two diseases. **14**
