

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

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

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-IV • EXAMINATION – WINTER 2013**

**Subject Code: 140402**

**Date: 23-12-2013**

**Subject Name: Basic Taxonomy and Techniques**

**Time: 02:30 pm to 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) Comment on the scope and importance of plant classification. **07**  
(b) Write a note on scientific nomenclature of plants. **07**

- Q.2** (a) Describe important methods of plant classification highlighting the key features involved in each method of plant classification. **07**

- (b) Write the taxonomical position, key characteristics and important examples of family solanaceae. **07**

**OR**

- (b) Write the taxonomical position, key characteristics and important examples of family leguminosae **07**

- Q.3** (a) Define animal diversity. Explain various types of diversities in animals. **07**  
(b) Comment on the scope and importance of animal classification. **07**

**OR**

- Q.3** (a) Discuss contribution given by Karl Leinsteiner in the field of taxonomy. **07**  
(b) Enlist various character consider for taxonomic distribution of an organism. Describe morphological characters in detail. **07**

- Q.4** (a) What do you mean by phage typing? Explain the technique by considering its significance in field of taxonomy. **07**  
(b) Give detail account on DNA- DNA hybridization. **07**

**OR**

- Q.4** (a) Discuss in detail about numerical method of microbial classification. **07**  
(b) Explain the method of 16S r RNA analysis for the taxonomic distribution. **07**

- Q.5** (a) Define the term dendrogram. Explain how it is created? **07**  
(b) How serology is helpful in grouping the organism? **07**

**OR**

- Q.5** (a) G+C% ratio is also considered for the field of taxonomy. Justify it with suitable explanation. **07**  
(b) Write a note on microbial diversity. **07**

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