

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV • EXAMINATION – SUMMER • 2014****Subject Code: 140402****Date: 20-06-2014****Subject Name: Basic Taxonomy and Techniques****Time: 10:30 am - 01:00 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) Briefly explain the contributions of Aristotle, Theophrastus and Linnaeus in the field of taxonomy and classification of living organisms. **07**
(b) Briefly explain the meaning of terms species, genus, family, class, phylum and kingdom. **07**
- Q.2** (a) Comment on the morphological, anatomical and biochemical characterization of living organisms. **07**
(b) Comment on the principle and significance of 16S rRNA analysis. **07**
OR
(b) Comment on the significance of GC% and sequence homology. **07**
- Q.3** (a) What is plant taxonomy? Describe the requirements of plant taxonomy. **07**
(b) Describe the requirements and significance of animal taxonomy. **07**
OR
- Q.3** (a) Comment on the early attempts of animal classification. **07**
(b) Comment on the early attempts of microbial classification. **07**
- Q.4** (a) Discuss the characteristic features of family Leguminosae. Give common examples and mention the economic importance. **07**
(b) Comment on the present status of plant taxonomy. **07**
OR
- Q.4** (a) Discuss the characteristic features of family Poaceae. Give common examples and mention the economic importance. **07**
(b) Comment on the present status of animal taxonomy. **07**
- Q.5** (a) Describe the scientific nomenclature of microorganisms. Give examples. **07**
(b) Comment on the methods of microbial classification. **07**
OR
- Q.5** (a) Briefly describe different categories of microorganisms. **07**
(b) Describe characteristics features of any four phyla of animals. Write suitable examples of animals under each phylum. **07**
