Seat No.: _____ *Enrolment No._____*

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. Sem - IV Examination - June- 2011

Subject code: 140402

Subject Name: Basic Taxonomy and Techniques

Date:08/06/2011 **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)**	Define the following terms: • Classification • Identification • Characterization • Taxonomical hierarchy • Binomial nomenclature • Species • Viral coat protein	**07**
	(b)	What is %G + C ratio? Write the significance of same in context to taxonomy.	**07**
Q.2	**(a)**	What do you understand by plant diversity write a detail account on it?	**07**
	(b)	Discuss about early attempt taken in plant taxonomy.	**07**
		OR	
	(b)	Explain scientific nomenclature for microorganisms.	**07**
Q.3	**(a)**	What is animal taxonomy? How animals are classified?	**07**
	(b)	Write a note on present status of plant classification.	**07**
		OR	
Q.3	**(a)**	Discuss in detail various characters used for classification of microorganisms	**10**
	(b)	What is the intuitive method of microbial classification?	**04**
Q.4	**(a)**	Describe in detail serology and phage typing techniques used for microbial classification with merits and demerits.	**10**
	(b)	Define microbial diversity. What is the importance of studying microbial diversity?	**04**
Q.4	**(a)**	Write a detail note on fungi including suitable example of colonical and morphological characteristics	**07**
	(b)	Explain the process of DNA hybridization for microbial classification.	**07**
Q.5	**(a)**	Give detail account on viruses along with structural classification.	**10**
	(b)	Enlist various virus names along with specification.	**04**
Q.5	**(a)**	Enlist various methods of microbial classification. Explain numerical taxonomy with suitable example.	**07**
	(b)	Explain in detail contribution of 16s rRNA analysis technique for microbial classification.	**07**

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