

GUJARAT TECHNOLOGICAL UNIVERSITY**B.E. Sem-III Remedial Examination March 2010****Subject code: 130401****Date: 09 / 03 / 2010****Subject Name: Introductory Biology****Time: 03.00 pm – 05.30 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) Discuss the use and misuse of biology in the modern time. **07**
(b) Explain adaptation with suitable example. **07**

- Q.2** (a) Explain the major theories of origin of life. **07**
(b) Explain Miller's experiment for organic synthesis. **07**

OR

- (b) Explain the various "levels of biological organization". **07**

- Q.3** (a) Give the classification of plant tissues and mention the functions performed by various types of plant tissues. **07**
(b) Describe the internal structure of *Dicot* stem with the help of a labeled diagram. **07**

OR

- Q.3** (a) Describe the basic characteristics of animal tissue and give the classification of animal tissues. **07**
(b) Describe structure, location and functions of epithelial tissue with suitable diagrams. **07**

- Q.4** (a) What is water potential? Describe the process of absorption and movement of water in plants. **07**
(b) Comment on plant nutrition with respect to micronutrients and macronutrients. **07**

OR

- Q.4** (a) Comment on "transpiration is a necessary evil". Mention the factors affecting transpiration. **07**
(b) What is photosynthesis? Explain the mechanism of light reaction. Mention the factors that affect photosynthesis. **07**

- Q.5** (a) Describe various modes of nutrition in animals. **07**
(b) Comment on nutritional deficiencies and disorders. **07**

OR

- Q.5** (a) Comment on "hormonal control of digestion in human". **07**
(b) Describe the basics of human nervous system. **07**
