

**GUJARAT TECHNOLOGICAL UNIVERSITY****B.E. Sem-III Remedial Examination May 2011****Subject code: 130301****Subject Name: Life Science-1****Date: 28-05-2011****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) Write Structural classification of Joints & Explain Different types of Synovial Joints. **07**
- (b) Draw the Typical Structure of an Animal cell & Explain its Different Organelles. **07**
- Q.2** (a) Write the name of Different types of Tissue & Explain epithelial tissue with necessary Diagram. **07**
- (b) Explain different types of bone based on shape with example. **07**
- OR**
- (b) Due to chronic blood loss a person is suffering from iron deficiency which caused a disease X. As a student of physiology identify disease X and explain different consequences of disease X on patient. **07**
- Q.3** (a) Write about different Anatomical planes and Directions. **07**
- (b) Explain passive and active transport of ions through a cell membrane. **07**
- OR**
- Q.3** (a) Explain skeletal muscle Contraction. **07**
- (b) Explain measurement of membrane potential and action potential of nerve fiber. **07**
- Q.4** (a) Draw and explain structure of Heart. **07**
- (b) Explain Endocytosis and Exocytosis. **07**
- OR**
- Q.4** (a) Explain different stages of Nerve Action Potential. **07**
- (b) Explain mechanism of Respiration and muscles involved in Respiration. **07**
- Q.5** (a) Write a short note on cardiac muscle & Explain how heart as a pump. **07**
- (b) Draw & Explain anatomy of eye **07**
- OR**
- Q.5** (a) Write the composition of blood & Explain leucocytes and their types with their functions. **07**
- (b) Draw and explain anatomy of thoracic cavity. **07**

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