

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III • EXAMINATION – SUMMER 2013****Subject Code: 130301****Date: 29-05-2013****Subject Name: Life Sciences-1****Time: 02.30 pm - 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) Explain the anatomy of heart with neat diagram and give a short note on flow of blood circulation in the body. **07**

(b) Draw a structure of a cell and give a note on Cell membrane, Mitochondria, Lysosome and Golgi body. **07**

Q.2 (a) Draw the structure of Respiratory tract and describe each part in detail. **07**

(b) Draw and describe the structure of an adult bone and explain the Development of bone. **07**

OR

(b) What is Skeleton system, Classify and explain the Bones on basis of Shape and Structure. **07**

Q.3 (a) Draw the structure of Eye and explain the Muscles of Eye orbit, Retina, Lens. **07**

(b) Enlist various types of Tissues and describe them with necessary diagrams. **07**

OR

Q.3 (a) Enlist the different Blood Components and give detail note on Erythrocytes and Leucocytes. **07**

(b) What is Cardiac Output? How human body overcome from low BP to normal BP by Saline Infusion. **07**

Q.4 (a) Draw structure of a Skelton Muscle fiber and explain the Membrane Potentials and Action Potentials. **07**

(b) Explain the Transport of Carbon Dioxide in Blood and Describe about Chloride shift. **07**

OR

Q. 4 (a) What is Cardiac Cycle, Explain Cardiac Cycle in detail. **07**

(b) Define Homeostasis and explain how different organs works together to maintain homeostasis. **07**

Q.5 (a) Explain the anatomy of Thoracic cage in detail. What are the False Ribs and why they called as False Ribs. **07**

(b) 1. Define: Sagittal Plane, Flexion, Atrial Blood pressure, Posterior Position. **04**

2. Give a note on Vertebral Column and their different Vertebra. **03**

OR

Q.5 (a) Explain the Anatomy of Ear with neat diagram. **07**

(b) What is Anemia; explain the types of Anemia in detail. **07**
