

GUJARAT TECHNOLOGICAL UNIVERSITY**B. E. - SEMESTER – III • EXAMINATION – WINTER 2012****Subject code: 130301****Date: 05-01-2013****Subject Name: Life Science - I****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) Draw and explain structure of Cell. Explain function of different Cell organelles. **07**
(b) Draw neat structure of Trachea and Bronchus and explain functions of it. **07**
- Q.2** (a) Draw anatomical structure of respiratory system and explain mechanism of Respiration. **07**
(b) Explain Cardiac Cycle with necessary wave form. **07**
OR
(b) Enlist and Explain Types of Heart Valves. **07**
- Q.3** (a) Short Note: Erythrocytes **07**
(b) Draw and Explain structure and Formation of Long Bone and explain Function of Bone. **07**
OR
- Q.3** (a) Short Note: Leucocytes **07**
(b) Enlist Types of Joints. And explain Physiology of any Two joints. **07**
- Q.4** (a) Draw and Explain anatomy of Eye. **07**
(b) Short Note: Arrhythmia **07**
OR
- Q.4** (a) Draw and Explain anatomy of Ear. **07**
(b) Explain principle of Gas Exchange and transport of CO₂ in blood. **07**
- Q.5** (a) Explain structure of cell membrane and explain various Transport mechanisms of ions through cell membrane. **07**
(b) Short Note: Blood Groups. **07**
OR
- Q.5** (a) Give Classification of Tissue and explain Epithelial Tissue in Detail. **07**
(b) Define below given Terms. **07**
1. Endocytosis- Exocytosis
2. Anterior- Posterior
3. FRC
4. TV
5. Homeostasis,
6. Yellow Spot
7. Osteocytes
