

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E. Sem-III Regular / Remedial Examination December 2010

Subject code: 130301

Subject Name: Life science-1

Date: 16 /12 /2010

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 the structure of cell and describe the structure of plasma membrane. **07**
(b) Describe the structure and functions of epithelial tissue. **07**
- Q.2** (a) Explain thrombocytes (platelets) in the blood. **07**
(b) Explain general structure of long bone with figure and also state the functions of bones. **07**
- OR**
- (b) Explain mechanism of accommodation in eye. **07**
- Q.3** (a) Define cardiac output and explain cardiac cycle. **07**
(b) Explain the structure of middle ear. **07**
- OR**
- Q.3** (a) Describe the conducting system of the heart with diagram. **07**
(b) Describe o₂ and co₂ transport in the blood. **07**
- Q.4** (a) Describe the physiology of taste. **07**
(b) Explain passive transport of substances across cell membrane. **07**
- OR**
- Q.4** (a) Compare the processes of internal and external respiration using concept of diffusion of gases. **07**
(b) Explain different types of synovial joint. **07**
- Q.5** (a) 1. Define: anatomy, acute, tidal volume, residual volume. **07**
2. Explain heart sounds.
(b) 1. Describe the accessory organs of the eye. **07**
2. Define: anterior, medial, superior.
- OR**
- Q.5** (a) 1. Explain smooth muscle tissue. **07**
2. Explain endoplasmic reticulum.
(b) 1. Give short note on cardiac arrhythmias. **07**
2. Describe ankle joint.
