

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE SEM-III Examination-Dec.-2011

Subject code: 130301

Date: 17/12/2011

Subject Name: Life Science - I

Time: 2.30 pm -5.00 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) Describe the structure and functions of Epithelial, connective, Muscle & Nervous tissues. **07**
- (b) Describe the main factors affecting the pulse rate. **03**
- (c) Define the below given terms. **04**
1. Olfaction
 2. Vasodilatation
 3. Cardiac Arrhythmia
 4. Haemostasis
- Q.2** (a) Discuss the structure, function and formation of red blood cells, including the systems used in medicine to classify the different types. **07**
- (b) Draw & explain the structure of artery & vein. **07**
- OR**
- (b) Define the term Anaemia. Explain three different types of Anaemia. **07**
- Q.3** (a) Describe the anatomical structure of the outer, middle & inner parts of the ear. **07**
- (b) Describe the structure of the heart and its position within the thorax. **07**
- OR**
- Q.3** (a) Draw & explain the structure & function of retina. **07**
- (b) Explain the structure of heart valves. **07**
- Q.4** (a) Explain types of cell division. Also explain Mutation. **07**
- (b) Explain the cardiac cycle with correlation between heart sound & ECG. **07**
- OR**
- Q.4** (a) Describe the control of blood pressure by Cardiovascular centre. **07**
- (b) Briefly explain the physiology of speech generation. **07**
- Q.5** (a) What is Osteogenesis? Also describe the functions of bone. **07**
- (b) Draw & explain the respiratory tract. **07**
- OR**
- Q.5** (a) Describe lung volumes & capacities with graph of normal breathing pattern. **07**
- (b) Draw the neat sketch of skull & sphenoid bone. **07**
