

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III • EXAMINATION – WINTER • 2014****Subject Code: 130301****Date: 30-12-2014****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 structure of heart with neat diagram. **07**
(b) Define Blood pressure and its types. And also explain the regulation of Blood pressure. **07**
- Q.2** (a) Define the following: (i) blood regurgitation **07**
(ii) frontal plane
(iii) EMG
(iv) vital capacity
(v) diffusion
(vi) physiology
(vii) excitability
(b) Describe the structure of cell with diagram. **07**
- OR**
- (b) Short note on: Connective tissues. **07**
- Q.3** (a) Describe the types of bone in detail. **07**
(b) Explain the structure of neuron with diagram. **07**
- OR**
- Q.3** (a) Discuss the types of joints in detail. **07**
(b) Explain the generation of action potential with diagram. **07**
- Q.4** (a) Describe the whole respiratory tract with diagram. **07**
(b) Write down the characteristics of blood. Explain the composition of blood and list out its functions. **07**
- OR**
- Q.4** (a) Explain the mechanism of respiration. **07**
(b) Short note on: RBC and erythropoiesis process. **07**
- Q.5** (a) Explain the structure of eye with neat diagram. **07**
(b) Short note on: tongue **07**
- OR**
- Q.5** (a) Explain the structure of ear with neat diagram. **07**
(b) Explain the anatomy of nose with diagram. **07**
