

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-IV • EXAMINATION – SUMMER • 2014

Subject Code: 140302**Date: 25-06-2014****Subject Name: Physiological Measurement Techniques****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 neat Structure of Cell. And explain different functions of Cell Organelles. **07**
(b) Explain Conduction system of the heart. **07**
- Q.2** (a) Classify External Interference Signals and Explain Ground Loop Interference. **07**
(b) Draw and Explain Anatomy of EYE. **07**
- OR**
- (b) With neat Diagram Explain anatomy of Heart. **07**
- Q.3** (a) Explain Mechanism of Respiration. **07**
(b) Short Note: Capacitive Interference **07**
- OR**
- Q.3** (a) Short Note: Pulmonary Function Testing **07**
(b) Short Note: Inductive Interference **07**
- Q.4** (a) Explain use of Piezo Crystal as Pressure, capacitive and Displacement Transducers. **07**
(b) Draw and explain Structure of Neuron. **07**
- OR**
- Q.4** (a) How Bio potential Signals are generated and Recorded with the help of electrodes. **07**
(b) Explain Reflex Arc. **07**
- Q.5** (a) Explain Transport phenomena through Cell Membrane. **07**
(b) Explain Internal Electrodes and Micro Electrodes in Detail. **07**
- OR**
- Q.5** (a) Discuss the generation of Action Potential. What is all-or-nothing rule? **07**
Explain the refractory period of cell.
(b) What is Endocytosis? List different pathways of endocytosis and discuss **07**
Principal components of endocytic pathway.
