

B.TECH.**THEORY EXAMINATION (SEM–VIII) 2016-17
BIOMEDICAL INSTRUMENTATION****Time : 3 Hours****Max. Marks : 100****Note : Be precise in your answer. In case of numerical problem assume data wherever not provided.****SECTION – A****1. Explain the following:****10 x 2 = 20**

- (a) Write short note on EEG.
- (b) Define Radio-isotope?
- (c) What is Nebulizers?
- (d) Define CAT-Scan?
- (e) Discuss Nervous system.?
- (f) Define Bio-potential.
- (g) Discuss Inhalators?
- (h) What is use of Humidifiers
- (i) What is MRI.?
- (j) Discuss resting and action potentials

SECTION – B**2. Attempt any five of the following questions:****5 x 10 = 50**

- (a) Explain X-ray therapy with suitable diagram.
- (b) Explain Ophthalmology Instruments in detail.
- (c) What is Ophthalmoscope, Explain Tonometer for eye pressure measurement.
- (d) What is bio telemetry . Explain the components of a Bio-telemetry system.
- (e) Discuss Basics of Anatomy and Physiology of the body.
- (f) Explain Reparability of patient monitoring. and diagnosis and Reparability of patient monitoring equipment
- (g) What is blood pressure and Explain blood pressure measurement?
- (h) What is Pacemaker .Explain in detail with diagram?

SECTION – C**Attempt any two of the following questions:****2 x 15 = 30**

- 3 Explain measuring a living system. Define problems encountered in measuring a living system
- 4 **Explain the following:**
 - (i) Hearing Aids (ii) Myoelectric Arm
- 5 Describe Laser applications in medicine and Explain Prosthetic devices and Therapies