

Code No: **R41048****R10****Set No. 1****IV B.Tech I Semester Supplementary Examinations, February/March - 2018****BIO-MEDICAL ENGINEERING****(Open Elective)****Time: 3 hours****Max. Marks: 75****Answer any FIVE Questions**
All Questions carry equal marks

- 1 a) Explain about man-instrument system with neat block diagram. [8]
b) What are the various problems encountered in measuring a living system? Explain in detail. [7]
- 2 a) What is the difference between active and passive transducer? Explain the principle of any active transducer. [8]
b) With neat diagrams, explain about body surface electrodes and micro electrodes. [7]
- 3 a) With neat block diagram, explain the mechanical activities of the heart. [7]
b) What is the importance of blood flow? Explain any two methods used to measure blood pressure. [8]
- 4 a) With neat diagrams, explain about the respiratory therapy equipment. [7]
b) Explain about the various types instruments used for the mechanics of breathing. [8]
- 5 a) What is fibrillation? How you correct it? Draw and explain DC defibrillator. [8]
b) Write about the elements of intensive care monitoring. Explain about patient monitoring displays. [7]
- 6 a) Explain pure audiometry and speech audiometry. [7]
b) With the help of neat diagrams, explain the working of a Nerve-Muscle stimulator. [8]
- 7 a) Explain how four physiological parameters are monitored and telemetered simultaneously. [7]
b) How telemetry can be done for ECG measurement during exercise. List the advantages of telemetry. [8]
- 8 a) Explain various methods of accident prevention with diagrams. [8]
b) Explain about isolated power distribution system in detail. [7]