

BE/B.TECH DEGREE EXAMINATION, April/May 2011
Electronics and communication engineering,
VI semester
EC 384 – Medical Electronics

Time : 3 hrs

Answer ALL the questions

Max:100 marks.

Part A – (10X2=20)

1. Define: Action potential.
2. Draw the typical waveform ECG and mention the parameters.
3. What is Electrophoresis?
4. Which transducer is used for measuring the pulse rate?
5. List out the different types of pacemakers.
6. What is Cochlear implant?
7. What are the different types of waveforms used in medical stimulator?
8. What is Let-go current?
9. Which laser is used for cutting during the surgery?
10. What is endoscopy?

PART – B (16X5=80)

11. (i) Explain the different types of Lasers and its medical application. (10)
(ii) Explain the principle of surgical diathermy. (6)
12. (a) Discuss about the different types of Electrodes used for measuring the Bio Potential. (16)
(OR)
12. (b) (i) Draw the 12 lead ECG system and explain (8)
(ii) Draw the 10-20 electrode placement system. (8)
13. (a) Explain the following
(i) pH measurement (8)
(ii) Blood cell counters (8)
(OR)
13. (b) Explain any two methods of measuring the blood pressure using indirect methods. (16)
14. (a) Draw the block diagram of R-Wave triggered pacemaker and explain. Give its advantages (16)
(OR)
14. (b) Explain the following
(i) DC Defibrillator (8)
(ii) Dialyser (8)
15. (a) Explain the different types of diathermies and their application. (16)
(OR)
15. (b) Write short note on
(i) Radio pill (8)
(ii) Telemetry (8)