



B.E. DEGREE END SEMESTER EXAMINATIONS, April/ May 2012
Electronics and Communication Engineering
Sixth Semester
EC 384- Medical Electronics

Time: 3 hr

Max. Marks: 100

Answer ALL Questions

Part – A (10 x 2 = 20 Marks)

1. Draw the waveform of ECG and mention the amplitudes and time intervals.
2. What is EOG?
3. Which transducer is used to measure the body temp?
4. What is cardiac output?
5. Mention the different types of pacemakers.
6. What is Cochlear Implant?
7. List the applications of Bio Telemetry.
8. What is micro and macro shock?
9. What are the applications of Telemedicine?
10. Mention the Components of endoscope.

Part – B (5 x 16 = 80 Marks)

11. (i) (a) Explain the following
 - (i) pH measurement (8)
 - (ii) Sphygmomanometer (8)
12. (a). (i) Draw the block diagram of ECG Machine and explain the Components? (12)
 (ii) Compare the signal Characteristics of ECG, PCG (4)
- (OR)
12. (b) (i) Explain the different types of electrodes used in Bio potential Measurement (10)
 (ii) Explain the Characteristics needed for Biological amplifiers? (6)
13. (a). Draw the block diagram of R-Wave triggered pacemaker and explain. Give it advantages (16)
- (OR)
13. (b) Explain the following
 - (i) DC Defibrillator (8)
 - (ii) Dialyser (8)
14. (a) Explain the different types of diathermies and their application. (16)
- (OR)
14. (b) Write short note on
 - (i) Radio pill (8)
 - (ii) Tele stimulation (8)
15. (a) Explain the different types Lasers used in Medicine (16)
- (OR)
- 15 (b) Explain the following
 - (i) Thermograph (8)
 - (ii) Surgical Diathermy (8)