



(3 Hours)

[Total Marks: 80]

Note:

1. Question No.1 is Compulsory
2. Attempt any THREE out of remaining FIVE Questions
3. Figures to Right Indicates Full Marks
4. Draw Neat and Labelled Diagram wherever required

Q.1 Answer any Four

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| a. What is EMG, explain the electrodes used for measuring EMG signals | 05 |
| b. What do you understand by POC device ? | 05 |
| c. Comment on Microshocks and Macroshocks | 05 |
| d. Define Blood Pressure. How Blood Pressure can be evaluated using Auscultatory Method | 05 |
| e. Physiological effects of Electrical Current | 05 |
| Q2.a. Explain in detail the 10-20 electrode system used in EEG | 10 |
| Q2.b. With a neat block diagram explain ECG Machine | 10 |
| Q3.a. Explain with the help of a neat diagram the working of Electromagnetic Blood Flow meter. | 10 |
| Q3.b. Draw a neat labelled block diagram of Arrhythmia Monitor and explain its working. | 10 |
| Q4.a. Describe types of Landline and Radio frequency telemetry | 10 |
| Q4.b. With a neat block diagram explain working of Bedside Monitor | 10 |
| Q5.a. What is an Audiometer? Explain working of an Evoked Response Audiometry System | 10 |
| Q5.b. Explain Direct and Indirect Technique for Measurement of Foetal Heart Rate | 10 |
| Q.6 Write Short Notes on any FOUR | 20 |
| a) Holler Monitor | |
| b) Cochlear Implants | |
| c) Lung Function Test | |
| d) Baby Incubator | |
| e) Instrumentation Amplifier | |