

TE-V-CBS40 - BM - May - 2016

BI-IT

10/05/2016.

QP Code : 31634

(3 Hours)

Total Marks : 80

- N.B:**
- (1) Q.1 is compulsory.
 - (2) Attempt any three questions from remaining questions.
 - (3) Assume data where-ever necessary.
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1.
 - (a) Explain Action potential in nerve 05
 - (b) Draw and label the waveform recorded at lead II configuration 05
 - (c) Draw and explain any five different cardiac arrhythmia conditions 05
 - (d) Explain the different noises observed while recording biosignals 05
 2.
 - (a) Explain 10-20 electrode system for EEG recording. 10
 - (b) Draw and explain patient monitoring system 10
 3.
 - (a) Explain Unipolar and Bipolar leads in Wilson network. 10
 - (b) Discuss different shocks. Which shock is more dangerous for patient safety? Why? 05
 - (c) Explain oscillometric method of measuring blood pressure. 05
 4.
 - (a) Explain apnea detector with the help of suitable block diagram. 10
 - (b) Explain Ultrasonic doppler shift based foetal heart rate monitor. 10
 5.
 - (a) What is telemedicine? Explain biotelemetry transmitter. 10
 - (b) Explain how instantaneous heart rate is measured? 10
 6. Write short notes (Any Four) 20
 - (a) Cardiocograph
 - (b) Heart rate variability
 - (c) Glucometer
 - (d) EOG measurement
 - (e) Biofeedback