

4th Sem./ Medical Electronics
Subject : Telemetry and Telemedicine

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 _____ material is not a piezo-electric material.

- a) Quartz b) Rochelle salt
- c) Barium Titanate d) Aluminum

Q.2 _____ is paper recording speed for routine work

- a) 10 mm/ sec b) 15 mm/ sec
- c) 20 mm/ sec d) 25 mm/ sec

Q.3 _____ material used in limb surface electrode.

- a) German silver b) Platinum
- c) Gold d) Copper

Q.4 Preamplifier is used for -

- a) Amplification b) Stabilizing effect
- c) Modifying effect d) Reducing effect

Q.5 _____ is a wireless ECG acquisition system

- a) Limb electrodes
- b) Smart Pad
- c) Paste-less Electrodes
- d) Pre-gelled disposable electrodes

Q.6 Which of the following component converts biochemical events into measurable signals.

- a) Amplifier b) Op-Amp
- c) Rectifier d) Transducer

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 Telemetry
- Q.8 Expand DDS
- Q.9 Expand TDM
- Q.10 Perigee
- Q.11 Expand ECG
- Q.12 Internet resources

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Explain Telemetry receiver system with diagram.
- Q.14 Write a note on telemetry system in ECG and respiration
- Q.15 Write a note on satellite communication link
- Q.16 Explain telemedicine and its applications
- Q.17 Explain transmission of video images.
- Q.18 What do you mean by FDM. Explain it.
- Q.19 Write a note on digital communication services.
- Q.20 Write a note on telemetry system in sports.
- Q.21 Explain transmission of Digital audio.
- Q.22 Explain ISDN in details.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Explain Geo-stationary satellite with diagram.
- Q.24 Explain Time Division Multiplexing.
- Q.25 Explain single channel telemetry system with diagram.