B.Tech. SEM -VI Bio Medical 2014 Course (CBCS) : SUMMER - 2019
SUBJECT: BIOMEDICAL ELCETRONICS - II

Day: Wednesday
Date: 29/05/2019

Time: 02.30 PM TO 05.30 PM
Max Marks. 60

S-2019-2775

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Assume suitable data, if necessary.

Q.1 Explain Inkjet recorders in detail. Give examples of biomedical application where the recorder is used. Write the frequency range of signal to be recorded. **(10)**

OR

Q.1 Describe servo mechanism. Explain the principle and working of servo recorder with diagram. **(10)**

Q.2 What is the use of non-fade displays in biomedical application? Discuss the types of non-fade displays in detail. **(10)**

OR

Q.2 Draw the diagram of patient monitoring system. Explain need of patient monitoring? What are the various parameters monitored on the bedside monitors? **(10)**

Q.3 List and explain types of dialyzers used for purification of blood. **(10)**

OR

Q.3 Draw the set up of spectrophotometer. Explain spectrophotometer over colorimeter. Also give advantages of spectrophotometer. **(10)**

Q.4 Write short note on :

a) Electrosurgical machine **(05)**
b) Doppler effect **(05)**

OR

Q.4 a) What is the principle used in ultrasound measurement? What are the properties of ultrasound? **(04)**
b) What are the modes of operation used in ESU? **(06)**

Q.5 What do you mean by pneumotachograph? Give the details with the help of diagrammatic representation. **(10)**

OR

Q.5 What is plethysmograph? Explain chamber plethysmograph with the help of diagram. **(10)**

Q.6 Define atrial and ventricular fibrillation with waveform and explain working of AC defibrillator with block diagram. **(10)**

OR

Q.6 a) Explain calibration method of defibrillator. **(04)**
b) What do you mean by programmable pacemaker? What are its advantages? Explain it with basic principle. **(06)**

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