

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Voc. (E&IT) (Sem.-4)
MEDICAL ELECTRONICS
Subject Code : BVET-401-20
M.Code : 91663
Date of Examination : 13-12-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

SECTION-A

1. Write briefly :

- A. What do you mean by absolute and relative refractory period?
- B. What is a radio pill?
- C. What do you understand by the term transducer? Give example.
- D. Name different respiration sensors.
- E. What is the principle of working defibrillator?
- F. What do you mean by let go current?
- G. What are the normal ranges of blood pressure?
- H. Name the characteristics required for Bio-amplifier.
- I. List the types of bio-electric potentials.
- J. Mention the cause of first and second heart sound.

SECTION-B

2. What is known as Bio-potential electrodes? Explain various types of biopotential electrodes with diagram and equivalent circuit.
3. Briefly discuss about micro and macro shocks.
4. Draw the ECG waveform and explain its different characteristics.
5. Explain the working principle of electromagnetic blood flow meter.
6. Explain with a neat diagram the working of DC defibrillator.

SECTION-C

7. Explain the 10-20 lead system with diagram.
8. With a neat diagram explain the working of ventricular triggered pacemaker.
9. Explain in detail about the origin of bio-potential with diagram.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.