

315346

12526

3 Hours / 70 Marks

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
(2) Answer each next main Question on a new page.
(3) Illustrate your answers with neat sketches wherever necessary.
(4) Figures to the right indicate full marks.
(5) Assume suitable data, if necessary.
(6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following : **10****
- a) Give the significance of ICCU.
 - b) Suggest and justify the suitable pacemaker lead used to attach to the inner walls of the heart.
 - c) List the technical specifications of ventilator.
 - d) State the uses of infusion pump.
 - e) List any two life support equipments.
 - f) State the significance of nebulizer.
 - g) Enlist any two parameters controlled using baby incubator.

P.T.O.

- 2. Attempt any THREE of the following :** **12**
- a) Describe charging and discharging of DC defibrillator.
 - b) State the need of suction apparatus. List any three technical specifications.
 - c) Describe the working of cardiac monitor with neat sketch.
 - d) Describe the concept of AED.
- 3. Attempt any THREE of the following :** **12**
- a) Enlist the steps involved in monthly maintenance of ICU equipment.
 - b) Draw the block diagram of Hemodialysis machine and explain it.
 - c) Enlist any four important technical specifications of DC defibrillator.
 - d) Identify the monitoring system such that it acquire and record physiological parameter of different organs simultaneously on a single monitor. Also draw its block diagram.
- 4. Attempt any THREE of the following :** **12**
- a) Draw the block diagram of programmable microprocessor based infusion pump.
 - b) Define the concept of tidal volume and minute volume.
 - c) Enlist any four technical specifications of bedside monitor.
 - d) Describe the biphasic and monophasic defibrillator.
 - e) Explain plasma pyrolysis waste treatment and disposal technique.

- 5. Attempt any TWO of the following :** **12**
- a) i) Compare synchronous and Asynchronous pacemaker.
(Any three points)
 - ii) State the importance of endocardial and myocardial leads.
 - b) Explain assist and control mode of ventilator in detail.
 - c) Draw and explain the working of Heart-lung bypass machine.
- 6. Attempt any TWO of the following :** **12**
- a) State the importance of baby incubator. List the steps of maintenance for baby incubator.
 - b) Define fibrillation of heart. State the need of defibrillator. List its types.
 - c) State one example and name the disposal technique used for the following type of waste.
 - i) Anatomical waste
 - ii) Metallic waste
 - iii) Contaminated plastic waste
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