

315345

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) List therapeutic uses of ultrasound.
  - b) List types of CPM.
  - c) State the need of traction treatment.
  - d) State types of cutting and coagulation electrodes.
  - e) List Physiological effects of UV radiation on human body.
  - f) Define micro and macro shock.
  - g) State the working principle of CPM machine.

P.T.O.

- 2. Attempt any THREE of the following :** **12**
- a) Explain effects of electric current on nerve and muscles of human body.
  - b) State any two advantages and applications of negative pressure wound Therapy.
  - c) List parts of CPM machine. Give function of each part.
  - d) Draw and explain block diagram of ultrasound therapy equipment.
- 3. Attempt any THREE of the following :** **12**
- a) Explain working principle of IR lamp with sketch.
  - b) Prepare a trouble shooting chart for traction machine.
  - c) Explain capacitive application technique of SWD with sketch.
  - d) Compare unipolar and bipolar modes of ESU.
- 4. Attempt any THREE of the following :** **12**
- a) List four technical specifications of ultrasound therapy equipment.
  - b) Explain electric hazard in hospital environment.
  - c) Explain working principle of UV lamp with sketch.
  - d) List any four applications of tilt table.
  - e) Explain working of Ruby Laser with sketch.

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**Marks**

- 5. Attempt any TWO of the following : 12**
- a) Draw and explain block diagram of traction machine.
  - b) Draw block diagram of nerve and muscle stimulator. State function of each block.
  - c) Explain cutting and coagulation method of ESU with sketch.
- 6. Attempt any TWO of the following : 12**
- a) Explain any four contra-indications of cold therapy on human body. List uses of cold therapy.
  - b) Describe accident prevention methods used in hospital environment.
  - c) Mention any four possible faults and remedies for SWD equipment. List technical specifications of SWD.
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