

Q.P. Code: 25392

Duration: 03 Hours.

Instructions to the candidates if any:-

- N. B. (1) Question No. 1 is **compulsory**.
 (2) Answer any **Three** out of remaining questions.
 (3) Assumptions made should be **clearly** stated.



Total marks: 80

| Q. No. | Marks |
|--|-------|
| Q. 1 Solve any Four | 20 |
| a) Explain EEG patterns | |
| b) Explain action and resting potential of cell | |
| c) What is fibrillation? List its types | |
| d) What is Hounsfield number in C.T.? | |
| e) What is Pacemaker? Classify its modes of operation | |
| Q. 2) a) Explain electrode electrolyte interface | 10 |
| b) Explain cardio vascular system in detail | 10 |
| Q. 3) a) Explain 12 lead electrode system for ECG measurement | 10 |
| b) Explain electromagnetic blood flow measurement technique | 10 |
| Q.4) a) What is cardiac output? Explain its measurement | 10 |
| b) What is plethysmography? Explain Chamber Plethysmography | 10 |
| Q. 5) a) Explain working of Hemodialyser and precautions to be taken | 10 |
| b) Explain working of X ray machine with block diagram | 10 |
| Q.6) a) Explain modes of ultrasound imaging | 10 |
| b) Explain physiological effects of electric current? | 10 |