Register No.:	

# 789

## October 2023

#### <u>Time - Three hours</u> (Maximum Marks: 100)

- [N.B. 1. Answer all questions under Part-A. Each question carries 3 marks.
  - 2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

### PART - A

- 1. What is electrode? How is it classified?
- 2. List out the methods of measuring heart rate.
- 3. How many leads are in ECG lead system? What are they?
- 4. What are the Clinical uses of audiometers?
- 5. What are the processes involved in dialysis?
- 6. What are the types of Ventilator?
- 7. What are the applications of bio-telemetry system?
- 8. What are the precautions made to minimize electric shock hazards?
- 9. What do you mean by LASER beam? List its properties.
- 10. Write about angiography.

## PART - B

11. (a) (i) Explain the various types of Micro electrodes.(7)
(ii) Draw the structure a Cell and state the function of each part of it.(7)

(Or)

- (b) What do you mean by Auto analyzer? Why we need it in patient care? Explain the working of it.
- 12. (a) Draw the various types of EEG waves. With neat block diagram explain the working of EEG recorder.

  (Or)
  - (b) Draw the structure of EMG wave and explain its clinical uses. State the methods of recording EMG action potential.
- 13. (a) With a neat sketch, describe the working of heart lung machine. (Or)
  - (b) Explain the working of Lithotriptor with a block diagram.
- 14. (a) Explain the physiological effects of commercial (50Hz) low frequency current.

(Or)

- (b) Explain the working of Ground Fault Interrupter.
- 15. (a) Explain the block diagram of Nd-Yag Laser.

(Or)

(b) Explain the working of Pulse eco system.