

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.

Q. 1 Solve

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- a) Explain structure of Cell
- b) What is blood circulation? Explain its types
- c) What is Hounsfield Number in CT?
- d) Compare direct and indirect blood pressure measurement

Q. 2) a) What is Heart Sound? Explain electrical and mechanical activities of Heart 10

b) Explain human respiratory system and parameters to be measured 10

Q. 3) a) Explain EEG measurement with 10-20 Electrode placement system 10

b) Explain direct blood pressure measurement 10

Q.4) a) Explain hemodialyser machine and precautions to be taken 10

b) Explain rate responsive pacemaker 10

Q. 5) a) Explain working of CT machine with suitable block diagram 10

b) Compare X ray, CT and ultra sound imaging 10

Q.6) a) Explain working principle of MRI machine 10

b) Explain physiological effects of electric current 10
