Time : Three hours Maximum : 100 marks

$$
\text { PART A }-(10 \times 2=20 \text { marks })
$$

Answer ALL questions.
Each answer should not exceed 50 words.

1. Define Action Potential.
2. Lysosomes.
3. Facilitated Diffusion.
4. Rigor Mortis.
5. Mastigation.
6. Dialysis.
7. Tidal Volume.
8. Neuclic Acids.
9. Homeostasis.
10. Uses of ECG.

PART B - ( $5 \times 6=30$ marks $)$
Answer ALL questions.
Each answer should not exceed 250 words.
11. (a) Define feed back mechanism. Explain positive and negative feedback mechanisms with examples.

Or
(b) Explain the process of mitosis.
12. (a) Explain the micturition reflex.

Or
(b) Explain the defecation reflex.
13. (a) Explain the oxygen transport in the blood.

Or
(b) Describe functions of the respiratory passage.
14. (a) Explain how the endurance of muscle can be enhanced.

Or
(b) Explain the changes in respiration during exercise.
15. (a) Describe gastric emptying.

Or
(b) Explain the various compartments of extra cellular fluid.

PART C $-(5 \times 10=50$ marks $)$
Answer ALL questions.
Each answer should not exceed 500 words.
16. (a) Explain the meosis process.

Or
(b) List the various hormones and the enocrine gland which secretes it. Explain in detail hormones which regulates blood sugar level.
17. (a) Explain the conduction system of heart.

Or
(b) Define blood pressure. Give the normal values. Explain how it is regulated.
18. (a) Explain the adaptations/accumatization to high altitude. Add a note on chronic mountain sickness.

Or
(b) Explain the transport of $\mathrm{CO}_{2}$ to lungs.

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19. (a) Explain the anatomy of kidney and renal blood flow.

Or
(b) Describe the movements of small intestine.
20. (a) Explain the structure of brain and enumerate the functions of hypothalamus.

Or
(b) Describe structure of eyeball. Explain the various errors of refraction.

