APRIL 2017 **1708207/PBYA21A**

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer any TEN questions.

Each question carries 1 mark.

1. Define entropy.
2. Give two examples for dehydrogenases.
3. Give any two inhibitors for ETC.
4. Define electron transport chain.
5. Define photosynthesis.
6. Name the pigment that converts light energy to chemical energy.
7. What is the amount of ATP obtained in anaerobic glycolysis?
8. What is meant by amphibolic nature of TCA cycle?
9. Define Xenobiotics.

10. Give example for phase-I reaction.

11. Define oxidative phosphorylation.

12. Name the inhibitors of TCA cycle.

SECTION B — (5 × 5 = 25 marks)

Answer any FIVE questions.

Each question carries 5 marks.

13. Write briefly on the high energy compounds.

14. Explain the components of ETC.

15. Explain the sequence of events in cyclic electron flow.

16. Write on the regulation of TCA cycle.

17. List the reactions that produce ATP in aerobic glycolysis. Add a note on the inhibitors of glycolysis.

18. Write briefly on hydroxylation and reduction in phase I reactions.

19. Explain Anaplerotic reactions with suitable examples.

SECTION C — (4 × 10 = 40 marks)

Answer any FOUR questions.

Each question carries 10 marks.

20. Describe high energy compounds and their importance in metabolism with suitable examples.

21. Explain in detail chemiosmotic theory.

22. Explain Calvin cycle.

23. Describe the amphibolic role of TCA cycle.

24. Describe the phase-I reactions of xenobiotics.

25. Discuss on $F_0 - F_1$ ATPase structure and function.

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