APRIL 2018 **1709414/PBYM23C**

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer any TEN questions.

Each question carries 1 mark.

1. What are the end products of β – oxidation of one molecule of palmitic acid?

2. Name the ketone bodies.

3. Write the reaction catalysed by acetyle CoA carboxylase.

4. Write the formation of asparagine from aspartate.

5. Describe the formation of serine from glycine.

6. What are the two tissues involved in HDL metabolism?

7. Why leucine is a ketogenic aminoacid?

8. How is oxaloacetate converted to aspartate?

9. Name the metabolite involved in TCA cycle and gluconeogenesis.

10. How does propionyl CoA enters into TCA cycle?

11. Name the precursor for bile acids.

12. What are the precursors for cysteine formation?

SECTION B — (5 × 5 = 25 marks)

Answer any FIVE questions.

Each question carries 5 marks.

13. Describe the regulation of β -oxidation.

14. Describe the biosynthesis of triacylglycerol.

15. Explain the formation of bile acids.

16. Discuss the biosynthesis of spermine and spermidine.

17. How is succinate formed from methionine?

18. Describe the metabolic profile of liver with respect to glucose metabolism.

19. Explain the breakdown of any one aromatic amino acid.

SECTION C — (4 × 10 = 40 marks)

Answer any FOUR questions.

Each question carries 10 marks.

20. Explain biosynthesis of fatty acids.

21. Discuss the pathways for the biosynthesis of prostaglandins and thromboxanes.

22. Describe the role and biological significance of glutamate dehydrogenase.

23. How is leucine degraded? Explain.

24. Explain the role of TCA cycle and its relationship to amino acid metabolism.

25. Explain the biosynthesis of ketone bodies and its regulation.

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