

APRIL 2017

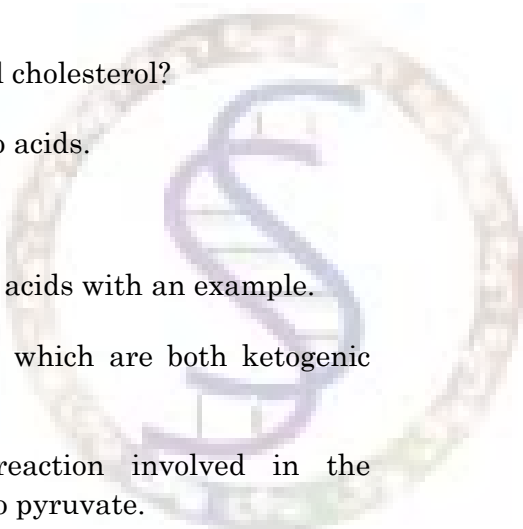
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Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer any TEN questions.

1. What is oxidation?
 2. Give an example of odd and even numbered fatty acids.
 3. Give the structure of Lecithin.
 4. What is ketogenesis?
 5. Why HDL is called good cholesterol?
 6. List the essential amino acids.
 7. What is spermine?
 8. Define ketogenic amino acids with an example.
 9. Name the amino acids which are both ketogenic and glucogenic.
 10. Name the type of reaction involved in the conversion of cysteine to pyruvate.
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11. How many ATPs are produced in TCA cycle?
12. What is the role acetyl CoA in metabolism?

SECTION B — (5 × 5 = 25 marks)

Answer any FIVE questions.

13. How ketogenesis are regulated in our body?
14. Explain the biosynthesis of bile acids.
15. Bring out the biological significance of glutamine and asparagine synthetase.
16. How spermine and spermidine are synthesized in our body?
17. How α -keto glutarate is obtained from histidine and proline?
18. Explain the conversion of aspartate, glycine and serine to oxaloacetate.
19. Briefly explain the interconversion of major food stuffs.

SECTION C — (4 × 10 = 40 marks)

Answer any FOUR questions.

20. Describe the β -oxidation of fatty acids.
21. Explain the lipoprotein metabolism in detail.

22. Elaborate the biosynthesis of plasmogens and phosphatidyl inositol.
23. Write a note on :
- (a) Phenylalanine hydroxylase (4)
 - (b) Proline to glutamate (3)
 - (c) Serine to glycine. (3)
24. How acetate is formed from aromatic amino acids?
25. Explain the role of tricarboxylic acid cycle in interrelationship of carbohydrate, protein and fat.

