D.K.M.COLLEGE FOR WOMEN(AUTONOMOUS),VELLORE-1

I M.Sc Biochemistry

Semester : II

Tile of the paper: INTERMEDIARY METABOLISM

Subject Code : 15CPBC2B

SECTION-A 6 MARKS

1. Write short notes on high energy phosphates
2. Explain chemiosmotic theory of oxidative phosphorylation
3. Explain the components of ETC
4. Explain the structure of ATP synthase
5. Give an account on energetics of glycolysis
6. Explain the synthesis of glycogen from glucose
7. Explain the pathway of glycogenolysis
8. Write short notes on fructose metabolism
9. Explain the metabolism of galactose
10. Explain the reactions of urea cycle
11. Explain transamination reaction and its significance
12. Give an account of glycogenic and ketogenic amino acid
13. Explain the catabolism of methionine
14. Explain decarboxylation reaction
15. Explain the biosynthesis of sphingomyelin
16. Explain the β-oxidation of fatty acid
17. What the ketone bodies? Explain the biosynthesis of ketone bodies
18. Give an account on regulation of cholesterol biosynthesis
19. Explain the salvage pathway of purine biosynthesis
20. Give an account on degradation of pyrimidines
21. Write a note on biosynthesis of deoxyribonucleoside

22. Explain the degradation of purine nucleotides

SECTION-B 15 Marks

1. What is oxidative phoshorylation? Explain the theories of oxidative phosphorylation
2. Explain the components and reaction at ETC
3. Explain the pathway of glycolysis and add a note on its regulation
4. Explain gluconeogenesis and its regulation
5. Explain the reaction of TCA cycle
6. Explain the catabolism of pheylalanine and tyrosine
7. Explain oxidative and non-oxidative deamination
8. Explain the biosynthesis of non-essential amino acid
9. Explain the following:
    a. Transamination (8)
    b. Deamination (7)
10. Explain the pathway of cholesterol biosynthesis and its regulation
11. Explain the biosynthesis of fatty acids
12. Explain the pathway of pyrimidine biosynthesis
13. How are purines synthesised by denovo pathway