LIPIDS

I.LONG ANSWERS (5M)

1. Define and classify lipids.
2. Classification and properties of fatty acid.
3. Lipoprotein.
4. Explain the terms Acid value and Iodine number of Lipids with their significance.
5. What is Saponification and Iodine Number? Write its importance.
6. Write short note on Essential fatty acids.
7. Give the chemical nature and properties of cholesterol.
8. Explain the structure of cholesterol and its importance in the body
9. Classify lipoproteins. Explain their biological significance.
10. Components and functions of phospholipids.
11. Draw structure of cholesterol and give its colour reactions.
12. Write Liebermann burchard & salkowski tests.
13. What are phospholipids? Describe the classification and functions of any two Phospholipids.
14. Explain the clinical significance of lipoprotein.
15. Discuss the qualitative analysis of lipids.
16. Composition and functions of lipoproteins.
17. Metabolic disorders of lipids.

II. SHORT ANSWERS (3M)

1. Name the essential fatty acids and discuss their biochemical role
2. Name any four biologically important compounds derived from cholesterol
3. Biomedical importance of derivatives of Cholesterol.
4. Define the terms : (i) Acid value (ii) Saponification value (iii) Iodine value
5. Describe phospholipids with examples.
6. What are essential fatty acids?
7. Functions of cholesterol.
8. Phospholipid
9. Functions of phospho lipids.
10. Lipoproteins
11. What are lipids?
12. Narrate the nutritional importance of lipids
13. What is saponification number? Give its significance.
14. Poly unsaturated fatty acids (PUFAs)
15. Apo-proteins and its significance.
16. Name any Two Phospholipids. Write their Significance.
17. Name the important poly unsaturated fatty acids. Write their functions.
18. LDL – Cholesterol

19.Nieman Pick Disease.
20.Normal Reference Range of A) LDL Cholesterol B) HDL Cholesterol
21.Explain the metabolism and functions of HDL
22.Role of HDL as scavenger of Cholesterol.
23.Acrolein formation
24.Differentiate between fats & oils.
25.Chylomicrons.
26.VLDL
27.Triglycerides
28.Emulsification test
29.Mono unsaturated fatty acids.
30.Non-essential fatty acids.
31.Rancidity
32.Solubility of lipids.
33.What are fatty acids? Explain its types with example.
34.Saturated fatty acids.

NUCLEIC ACIDS

I.LONG ANSWERS (5M)

1. Discuss the Structure and Functions of DNA
2. Briefly discuss the composition of DNA with a suitable diagram.
3. Describe the Watson Crick structure of DNA.
4. Discuss about nucleic acids under following headings: a) Types b) Functions c) Components d) Char gaffs rule of DNA composition e) Different forms of DNA double helix and f) Differences between DNA and RNA.
5. Difference between DNA and RNA.
6. Classify RNA and explain the functions.
7. Structure of RNA.
8. List out the purines and pyrimidines involved in DNA synthesis. Give their structures.
9. What are nucleoside, nucleotide and nucleic acid? Discuss properties of DNA and RNA.

II. SHORT ANSWERS (3M)

1. What are nucleic acids? Write any two functions.
2. Give any two differences between DNA and RNA.
3. What is Nucleotide? Give example.
4. What is Nucleoside? Give example
5. Explain the structure of t-RNA
6. Name the pyrimidine bases present in DNA with their structure
7. t-RNA

8. What are Nucleotides? Name any three biologically important nucleotides and their importance.
9. Name the bases found in nucleic acids.
10. Name the bases present in DNA.
11. Differentiation mRNA & tRNA.
12. Adenosine Triphosphate (ATP)
13. Ribose and deoxy ribose
14. Name different types of RNA
15. What are rRNAs?
16. Name the purine bases and give their structure.
17. Properties of purine and pyrimidine bases.
18. Chargaff's rule.
19. Define translation.
20. Define transcription.

ENZYMES

5m:

1. Explain the mechanism of enzyme action.
2. Discuss the diagnostic applications of isoenzymes.
3. Explain coenzymes.
4. Enumerate the IUB classification of enzymes.
5. Explain allosteric enzymes regulation.
6. Explain in detail about the clinical significance of Isoenzymes.
7. Clinical applications of enzymes.
8. Classification and nomenclature of enzymes.
9. Define enzyme and discuss the various types of enzyme inhibition with suitable examples.
10. Properties of enzymes.
11. What are enzymes? Classify. Explain Nomenclature of Enzyme.
12. Effect of pH, temperature and substrate on enzyme activity.

3m:

1. What is Michaelis-Menten equation?
2. What is isoenzyme?
3. What are exergonic reaction?
4. Define coenzymes
5. Explain Endergonic reactions.
6. Write the therapeutic applications of enzymes.