



- Notes :
1. Diagrams and Chemical equation should be given wherever necessary.
 2. Illustrate your answers wherever necessary with the help of neat sketches.

1. Multiple choice questions (answer all the question).

20

- The lipoprotein processing the highest quantity of phospholipid.
 - HDL
 - LDL
 - VLDL
 - Chylomicrons
- C₅ H₈ is known as.....
 - Isoprene
 - Amino acid
 - Protein
 - Pigments
- Amino acid is converted into fatty acid by.....
 - Hydrolysis
 - Reduction
 - Intramolecular
 - Oxidation
- Topoisomerase acts on temperature.....
 - Above 35°C
 - Between 35° to 40°C
 - Above 90°C
 - Between 40°C to 50°C
- 5-HTP is converted to serotonin by
 - Serotonin synthase
 - 5 HTP decarboxylase
 - 5 HT decarboxylase
 - Serotonin carboxylase
- Codon AAA stands for -----.
 - Proline
 - Lysine
 - Alanine
 - Arginine
- Which is of following is not a pyrimidine base?
 - Adenine
 - Cytosine
 - Uracil
 - Thymine
- Break down of fatty acid occurs in -----.
 - Lysosome
 - Mitochondria
 - Ribosome
 - Vacuoles
- Hepatic steatosis is also known as -----.
 - Proline
 - Alanine
 - Atherosclerosis
 - Hypercholesterolemia
- Conversion of NADH to NAD⁺ is blocked by -----.
 - Antimycin A
 - Rotenone
 - CO
 - CN
- Insulin is the example of -----.
 - Primary structure
 - Secondary structure
 - Tertiary structure
 - Quaternary structure
- If ΔG > 0. then -----.
 - Exergonic reactⁿ
 - Endergonic reactⁿ
 - Both
 - None
- Glycolysis is also known as -----.
 - Kreb's cycle
 - HMP shunt
 - EMP pathway
 - None
- Irreversible process in TCA cycle is -----.
 - Succinyl COA to succinate
 - Fumarate to malate
 - Isocitrate to α ketoglutarate
 - Malate to oxaloacetate

2. Long answers solve **any two** from following. 20
- 1) What is TCA cycle & describe in detail about TCA pathway & explain its significance & energetics.
 - 2) Explain enzyme kinetics with respect to M & M equation & Lineweaver burk plot.
 - 3) Describe glycolysis explain stepwise pathway of glycolysis & give its significance.

- 1) Write short notes on transcription or RNA synthesis.
- 2) What is ketone bodies & explain the synthesis of ketone bodies.
- 3) What is lipid & explain De novo synthesis of fatty acid (Palmitic acid).
- 4) What is ETC & describe inhibitors of ETC.
- 5) What is free energy & explain differentiation between endergonic & exergonic reaction.
- 6) Describe gluconeogenesis pathway & give its significance.
- 7) What is co-enzyme & explain its structure & biochemical function.
- 8) What are the general aspects of amino acid metabolism.
- 9) Write short notes on hyperuricemia & gout disease.
