



- Notes :
1. All questions carry equal marks.
 2. Assume suitable data wherever necessary.
 3. Illustrate your answers wherever necessary with the help of neat sketches.
 4. All questions are compulsory.

1. Solve the following. **20x1**
=20
 - a) Draw structure of DNA?
 - b) Define free energy?
 - c) Write Difference between glycogenesis and glycogenolysis?
 - d) Write function of protein?
 - e) Write about biological oxidation?
 - f) Write properties of enzyme?
 - g) Define the term transcription and replication?
 - h) Define ketoacidosis?
 - i) Write difference between DNA & RNA?
 - j) Write disorder of lipid metabolism?
2. Solve the following **any two**. **10x2**
=20
 - a) Explain TCA cycle with energetics and significance?
 - b) Define enzyme with its classification & derive Michaelis Menten equation?
 - c) Explain De-novo synthesis of fatty acid?
3. Solve the following **any seven**. **7x5=**
35
 - a) Write classification of biomolecule with their function?
 - b) Describe the Electron Transport Chain (ETC) with significance?
 - c) Classify high energy compound and give its role?
 - d) Describe the structure of DNA?
 - e) Explain Urea cycle?
 - f) Write about factor affecting enzyme activity?
 - g) Write difference between endergonic reaction & exergonic reaction?
 - h) Briefly Explain HMP shunt with energetics and significance?
 - i) Write therapeutic uses of enzyme?
