



1. Describe ATP – ADP cycle in details. 10

OR

a) Discuss Enthalpy in brief. 2½

b) What is Redox potential. Explain. 2½

c) Describe the detailed structure of creatin phosphate. 2½

d) Explain in brief about phosphate potential. 2½

2. Describe TCA cycle in details along with its Regulation. 10

OR

a) Give outline of Glycolytic pathway. 2½

b) Describe bypass reactions of Gluconeogenesis. 2½

c) What is photophosphorylation. Explain in brief. 2½

d) What is Glycogenolysis & Glycogenesis Discuss. 2½

3. What is oxidation of Fats? Discuss in details about β -oxidation. 10

OR

a) Describe structure of fatty acyl – synthase complex. 2½

b) What is Ketogenesis. Explain. 2½

c) Add a note on Niemann – Pick's disease. 2½

d) Add a note on Gaucher's disease. 2½

4. What is Transamination? Describe its mechanism in details. 10

OR

a) Discuss the regulation of urea cycle. 2½

b) Explain purine biosynthesis in brief. 2½

c) What is Transmethylation, Explain. 2½

d) Add a note on salvage pathway of purine synthesis. 2½

5. Solve **any ten**.

- | | |
|---|---|
| a) Define free energy. | 1 |
| b) High Energy bond in phosphoenolpyruvate. | 1 |
| c) Write any two high energy phosphate compounds. | 1 |
| d) Define Gluconeogenesis. | 1 |
| e) What is oxidative phosphorylation? | 1 |
| f) What is Hill's reaction. | 1 |
| g) What are saturated fatty acids give example. | 1 |
| h) What is Ketosis. | 1 |
| i) Write the names of ketone bodies. | 1 |
| j) What is urea cycle. | 1 |
| k) What is decarboxylation. | 1 |
| l) Write any two important products of decarboxylation. | 1 |
