



**UNIVERSITY OF NORTH BENGAL**

B.Sc. Honours 4th Semester Examination, 2021

**CC10- ZOOLOGY**

**FUNDAMENTALS OF BIOCHEMISTRY**

Full Marks: 40

**ASSIGNMENT**

*The figures in the margin indicate full marks.*

**Answer any four of the following**

10×4 = 40

1. Describe the process of Gluconeogenesis with energy balance sheet.
2. Describe the primary structure of DNA with special note on types and complementarity of DNA.
3. Derive the Michaelis-Menten equation of single substrate-enzyme kinetics with emphasis on the Lineweaver Plot.
4. Describe the structure of ATP synthase and its role in ATP synthesis.
5. Describe the pentose phosphate pathway and its significance.
6. Discuss on the  $\beta$ -oxidation of saturated and even carbon containing fatty acids with special reference to energy balance sheet of this pathway.
7. Discuss the Cloverleaf model of t-RNA and its role in translation.
8. Give a detailed account of the secondary structure of protein.

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