

**RAGHUNATHPUR COLLEGE**  
**DEPARTMENT OF ZOOLOGY**  
**U.G. 3rd Semester Class Test 2023**  
Course Code: **BZOCCCHC303**  
Course Title: Fundamentals of Biochemistry

**Full Marks 30**

**Time 2 hours**

*The figures in the right hand side margin indicate marks. Candidates are required to give their answers in their own words as far as practicable.*

**1. Answer any ten from the following:**

**1X 10 = 10**

- a) What do you mean by Ramachandran plot?
- b) Name two essential amino acids.
- c) What is iodine number?
- d) How many NADH is produced during Krebs cycle?
- e) What are Allosteric enzymes?
- f) Why does coconut oil thicken in winter?
- g) What is SnRNA?
- h) Name a sulphur containing amino acid.
- i) What is SCID?
- j) What is a triple helix protein?
- k) What is an example of a competitive enzyme inhibitor?
- l) Define Hyperchromicity of DNA.
- m) What is Cori cycle?
- n) What is the role of carnitine?
- o) What is a liposome?

**2. Answer any five questions from the following:**

**2×5=10**

- a) What is mutarotation?
- b) Differentiate between glycosidic linkage and peptide linkage.
- c) Amino acids are zwitterions' — Explain
- d) Why pentose phosphate pathway is known as hexose monophosphate shunt?
- e) What is Lineweaver-Burk double reciprocal plot?
- f) What eicosanoids?
- g) Write a note on transamination.
- h) Describe biological importance of Glycogen

**3. Answer any two questions from the following:**

**5×2=10**

a) Schematically represent citric acid cycle (structures not required). Write down two main organ where neoglucogenesis mainly occur. 4+1

b) Describe briefly the Urea cycle.

c) What are the inhibitors of electron transport chain? What is the difference between A and B-form DNA?

**3+2**