

KANYASHREE UNIVERSITY

M.Sc. 1st Semester Examination-2023

Subject: Food & Nutrition

Course- CC 5

Nutritional Biochemistry

Full Marks-40

Time-2.00 Hours

Group A

[Answer **any four** of the following] 5×4=20

1. Is Krebs cycle anabolic-if yes then why? If not then why? [5]
2. What do you mean by ketogenic and glucogenic amino acid? [2.5+2.5]
3. Describe briefly the beta oxidation of any even numbered saturated fatty acid. [5]
4. What is gluconeogenesis? What are the keto form of glutamate and alanine? Which enzyme is essential for conversion of pyruvate to acetyl co-A? [1+2+2]
5. Write a short note on decarboxylation. What coenzyme we obtain from riboflavin? [4+1]
6. Write a short note on glycogenesis. [5]
7. Write a short on Cori cycle. Why it is essential for uninterrupted metabolism? [4+1]

Group B

[Answer **any two** of the following] 10×2=20

1. Describe briefly the bio-chemical steps involved in glycolysis. What are the irreversible steps of glycolysis? [7+3]
2. Illustrate the steps of HMP shunt pathway. [10]
3. Write a short note on Prostaglandin. Discuss the steps of urea cycle. [4+6]
4. How oxidative deamination is different from non-oxidative deamination in terms of reaction? Derive Michaelis-Menten's equation. [5+5]
