

U.G. 3rd Semester Examination-2021**FOOD & NUTRITION****[HONOURS]****Course Code : F&N-H-CC-T-5**

Full Marks : 40

Time : $2\frac{1}{2}$ Hours*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*1. Answer any **five** questions from the following:

2×5=10

- What is deamination reaction? Give an example.
- What are the importance of PUFA?
- Give two examples of essential amino acid.
- What is the hydrogen bonding pattern in alpha helix?
- Give two examples of essential fatty acid.
- What is competitive inhibition of an enzyme? State with suitable example.
- Which is rate limiting enzyme? State the rate limiting enzyme in glycolysis. 1+1=2

2. Answer any **two** questions : 5×2=10

- Discuss the classification of enzyme with suitable examples. 5
- Describe the role of starch and sucrose in diets. What is carbohydrate loading? 3+2
- What is gluconeogenesis? What is its importance? 2+3
- What is K_m value? State the importance of K_m in enzyme kinetics. 2+3

3. Answer any **two** questions : 10×2=20

- Describe the mechanism of Lock and Key model of an enzyme. How does pH affect the activity of an enzyme? 5+5
- Mention the importance of galactose in our diet. Describe the mechanism of TCA cycle. 2+8
- Differentiate between ω -3 and ω -6 fatty acid. State the recommended ratio of these acids in nutritional diet. Mention a common source of ω -3 fatty acid in diet. Describe the mechanism of beta oxidation of fatty acid. 2+1+1+6
- What is NPU value of a protein? Describe the mechanism of urea cycle. 2+8
