



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 3rd Semester Examination, 2021-22

FNTACOR05T-FOOD AND NUTRITION (CC5)

NUTRIENTS METABOLISM

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.*

Answer any four questions from the following

10×4 = 40

1. (a) What is a carbohydrate? 2
(b) Briefly state the regulatory action of Phosphofructokinase in glycolysis. 5
(c) Differentiate between transaldolase and transketolase reaction. 3

2. State the role of any two B vitamins in metabolism. 5+5

3. Write a brief account on anaplerotic reactions. What are Glucogenic and ketogenic amino acids? Answer with examples. 4+3+3

4. Write down the reactions of pentose phosphate pathway. Name the tissues where pentose phosphate pathway is active. Name the enzymes involved in synthesis and breakdown of glycogen. 5+2+3

5. State the functions of any two fat soluble vitamins. 5+5

6. Explain transamination and deamination with examples. 5+5

7. Explain the roles of calcium and zinc in human body. 5+5

8. Explain the steps involved in glycogenolysis. What is glycogenin? Explain its role in glycogen formation. 5+2+3

9. Explain the following: (any *two*) 5×2 = 10
(a) Decarboxylation
(b) Transmethylation
(c) Hypervitaminosis.

N.B.: *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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