

PG CBCS
M.Sc. Semester-I Examination, 2023
NUTRITION AND DIETETICS
PAPER: NUD 103

(METABOLISM OF MACRO AND MICRO NUTRIENTS AND ITS MOLECULAR BASIS)

Full Marks: 40

Time: 2 Hours

Write the answer for each unit in separate Answer Sheet

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

UNIT-5

METABOLISM OF MACRO NUTRIENTS AND ITS MOLECULAR BASIS

GROUP-A

Answer any TWO questions from the following: 2×2= 4

1. What are the transporters involved in EMP pathway?
2. Differentiate between anabolic and amphibolic pathways.
3. What do you mean by protein degradations?
4. What is Zellweger's syndrome?

GROUP-B

Answer any TWO questions from the following: 4×2 = 8

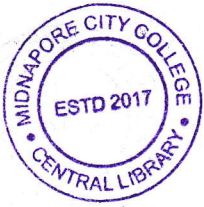
5. State about the role of carnitine in fatty acid metabolism.
6. Write the clinical importance of TCA cycle and names of inhibitor of acetyl-CoA.
7. Differentiate between transamination and deamination.
8. How purine and pyrimidine are catabolized in our body?

GROUP-C

Answer any ONE question from the following: 8×1= 8

9. Describe the hormonal regulation of blood sugar. State about the oxidative deamination. 4+4
10. Write the different types of fatty acid oxidation. State the significance of HMP pathway. 5+3

(P.T.O.)



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UNIT-6
MICRONUTRIENTS IN NUTRITION

GROUP-A

Answer any **TWO** questions from the following: **2×2 = 4**

1. Write the consequences of folic acid deficiency during pregnancy.
2. What is hemochromatosis?
3. Mention the role of zinc in cognitive development in early childhood.
4. What is the role of selenium as antioxidant?

GROUP-B

Answer any **TWO** questions from the following: **4×2 = 8**

5. How increased intake of sodium is associated with elevation of blood pressure?
Mention some sodium rich foods. **3+1**
6. What do you mean by antioxidant? Write the role of vitamin C as antioxidant. **1+3**
7. What is bone remodeling? Mention the role of calcium in bone health. **1+3**
8. What is fluorosis? Write the symptoms of skeletal fluorosis. **1+3**

GROUP-C

Answer any **ONE** question from the following: **8×1 = 8**

9. Mention the dietary sources of iron. Describe the mechanism of iron absorption.
Write the factors affecting iron absorption. **1+3+4**
10. How T₃ and T₄ are synthesized from iodine. Write the consequences of iodine deficiency in children. **4+4**
