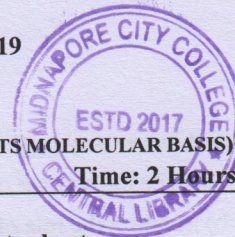


PG (NEW) CBCS
M.Sc. Semester-I Examination, 2019
NUTRITION & DIETETICS
PAPER: NUD-103

(METABOLISM OF MACRO AND MICRO NUTRIENTS AND ITS MOLECULAR BASIS)
Full Marks: 40



Write the answer for each unit in separate sheet

Unit-5

(Metabolism of Macro Nutrients and its Molecular Basis)

Group-A

- 1. Answer any two of the following questions:** **2×2=4**
- a) Write the 7-c and 4-c compound present in HMP shunt.
 - b) Why urea cycle is known as detoxification cycle?
 - c) State the significance of Transamination.
 - d) Write the key enzyme of glycogenolysis.

Group-B

- 2. Answer any two of the following questions:** **2×4=8**
- a) Write the steps of alcohol fermentation.
 - b) State the process of transfer of fatty acyl-coA through inner mitochondrial membrane.
 - c) State the role of Transketolase in the conversion of Ribose to Fructose.
 - d) State the biosynthesis of triglyceride.

Group-C

- 3. Answer any one of the following questions:** **1×8=8**
- a) Write the steps of ornithine cycle. Write the regulatory process of ornithine cycle. **6+2**
 - b) Discuss with line diagram the biosynthesis of cholesterol. What is hypercholesterolemia? **6+2**

(Turn Over)

(2)

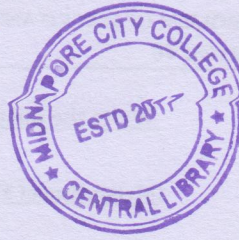
Unit- 6
(Micronutrients in Nutrition)

Group-A

1. Answer any two of the following questions:

2×2=4

- a) Write the sources of B-carotene.
 b) *Mention the role of folic acid in reproduction.*
 c) What are the functions of selenium?
 d) What do you mean by hypercalcemia?



Group-B

2. Answer any two of the following questions:

2×4=8

- a) Mention the role of iodine in growth and development. Write the sources of iodine. 3+1
 b) How iron is absorbed in our body? Write the role of Vitamin C in iron absorption. 3+1
 c) Write the sources of Vitamin B12. Write the role of vitamin B₁₂ during aging. 2+2
 d) Mention the function of Vitamin E. What are the consequences of vitamin E deficiency. 2+2

Group-C

3. Answer any one of the following questions:

1×8=8

- a) Describe the role of Vitamin C as antioxidant. How vitamin D helps in maintaining bone health? Write the importance of Vitamin A in prevention of chronic disease. 4+2+2
 b) Explain the role of zinc in human health with special emphasis on cognitive development. State the symptoms of skeletal fluorosis. Write the role of phosphorus in bone formation. 4+4
