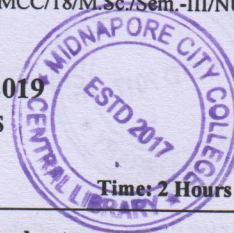


PG CBCS
M.Sc. Semester-III Examination-2019
M.Sc. NUTRITION & DIETETICS
Paper Code: NUD-303

Full Marks: 40

Time: 2 Hours



Write the answer for each unit in separate sheet

Unit-29

(Concepts of Nutritional Genomics, Proteomics and Metabolomics)

1. Answer any two of the following questions: **2×2=4**

- a) What do you mean by reverse transcription?
- b) Write the names of enzymes involved in epigenetics.
- c) What is R.E enzyme generally used in recombinant DNA technology?
- d) Define nutrigenetics.

Group-B

2. Answer any two of the following questions: **2×4=8**

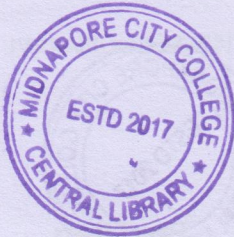
- a) Write the different avenues by which nutrients can modulate gene expression.
- b) 'DHA can prevent obesity' - Justify the statement from the view point of gene expression.
- c) Write the major steps for r-DNA formation.
- d) "Nutrient modulate gene stability" - Justify the statement.

Group-C

3. Answer any one of the following questions: **1×8=8**

- a) Write the steps of reactions of each cycle in PCR. Why Taq polymerase is used in PCR instead of mammalian DNA pol. **6+2**
- b) State the role of DADS on gene expression. Write the steps adapted for gene transfer through plasmid in transgenesis study with special reference to iron fortification in rice. **4+4**

(P.T.O)



(2)

Unit- 30
(Drug & Nutrient Interaction)

5. Answer any two of the following questions: 2×2=4

- a) Define LD₅₀ and ED₅₀.
- b) What do you mean by pharmacodynamics?
- c) State the importance of probiotics on immunity.
- d) What do you mean by plasma half life of drug?

Group-B

5. Answer any two of the following questions: 2×4=8

- a) Briefly discuss about the role of nutrient on drug metabolism and bioavailability.
- b) Explain the First order and zero order kinetics in drug excretion.
- c) Discuss about the oxidation and glucoronidation reactions of drug metabolism.
- d) "Nutraceutical acts as anticancer agent" - Justify this statement.

Group-C

6. Answer any one of the following questions: 1×8=8

- a) i. What is drug abuse?
ii. Mention the major route of drug administration.
iii. Discuss the role of plasma proteins for the transportation of drug. 2+2+4
- b) i. Discuss the role of drug on nutrient absorption.
ii. Explain the pharmacologic use of nutrients. 4+4
