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PG CBCS
M.Sc. Semester-I Examination, 2023
FOOD SCIENCE AND NUTRITION
PAPER: FSN 102
(FOOD SCIENCE AND NUTRITION)

Full Marks: 40 **Time: 2 Hours**

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.

GROUP-A

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

1. Which carbohydrate molecules are structural components of your body parts with examples?
2. Differentiate between medium and long chain fatty acids with examples.
3. What are the compounds required for iron and calcium absorption and why?
4. Which carbohydrate molecules used in food industry as prebiotics?
5. What are the roles of chaperones in protein folding?
6. What happens when a protein is misfolded?

GROUP-B

Answer any FOUR questions of the following: **4×4=16**

7. Briefly describe the structure of alpha-helix and beta-pleated sheet.
8. What is fibrous and globular protein? Write the importance of keratin protein.
9. Derive the M.M. equation. Write the significance of Km and Vmax.
10. Briefly describe the different bonds and interactions stabilizing the protein structure.
11. Write the immunomodulatory role of Vit-D.
12. Write the role of Zinc and selenium in our body system.

GROUP-C

Answer any TWO questions of the following: **8×2=16**

13. Explain about the four types of DNA replication. Write the role of different types of dietary fibers on gut motility and regulating gut dysbiosis. 4+4

(P.T.O)

14. How regulate the enzyme activities in our body system? Write the clinical significance of enzyme assays with examples. 5+3
15. Draw with label diagram of mitochondria and its role of electron transport chain. 4+4
16. Role of arsenic cobalt, nickle and boron as ultra-trace elements of the body.

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