

Food Science and Nutrition (P.G.)

[CBCS]

M.Sc. Third Semester End Examination-2024

(Regular & Supplementary Paper)

PAPER-MFSN 302

Full Marks: 40

Time: 02 Hrs.

The figures in the right hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Group A

Answer any five questions of the following:

5x2= 10

1. Why phytoestrogens are not steroid?
2. Define metabolome and metabolomics.
3. Write the importance of phases-II biotransformation reaction of drug.
4. Write the role of CAMP in immunoboosting.
5. What are the full forms of HAT and HMT in nutrietrigenetics?
6. Write the names of any four food stuffs where amylase inhibitors are present.
7. Write the relationship between prebiotics and probiotics.
8. What are the major factors influencing drug bioavailability?

(2)

Group B

Answer any four questions of the following: **4x5= 20**

9. Discuss the phase-I biotransformation reactions and write its importances. **3+2**
10. Draw the structure of 2-flavonol and 3-flavanone. Write the role of lipoic acid. **3+2**
11. Classify metabolites with examples. Why transcriptome is not preferred as fingerprint of cellular status? **3+2**
12. State the role of curcumin in controlling acetylation process of nucleoprotein in connection with nutriepigenetics.
13. Describe the mechanisms of drug-nutrient interaction at the step of drug absorption.
14. State the characteristic features and classification of prebiotics. **2+3**

Group C

Answer any one question of the following: **1x10=10**

15. Describe the role of ω_3 FA and vit A for obesity management from the view point of nutrigenomics. Write a short note on human genome project. **6+4**
16. "phytoestrogens are antioestoporotic agents" – Justify the statement. Write the biochemical action of inositol.

(3)

"Amylase inhibitors are important key for the management of hyperglycaemia" – Justify the statement focusing their mechanisms. **3+2+5**
