

2022

**Food Science and Nutrition**

[P.G.]

(CBCS)

**(M.Sc. First Semester End Examination-2022)**

**PAPER-103**

**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. What are the glucose transporters?
2. How are phospholipids arranged in the cell membrane?
3. Write any two inhibitors of TCA cycle.
4. State in brief about active site of enzyme.
5. What are the roles of chaperones in protein folding?
6. Write two examples of medium chain fatty acids.
7. Draw one 'H' bond and Vander wall force between two polypeptide chains.
8. Write any two monosaccharide derivatives with example?

(2)

**Group-B**

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

9. Give a flow chart of tri-acylglycerol biosynthesis.
10. Draw the structure of phosphatidic acid and phosphatidylinositol.
11. Briefly describe any three Glycogen storage diseases.
12. Draw the structures of Micelle, Bilayer and Liposome.
13. What is galactosemia? What problems are noted in galactosemia? 3+2
14. Write the non-oxidative phases of HMP pathway with significance.

**Group-C**

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

15. Write the role of insulin in cell signalling. Distinguish between alfa helix and beta pleated sheet structures of proteins. 5+(3+2)
  16. Write any four enzymes used in diagnostic & food industry. What do you mean by 'turn over number of an enzyme'? How do you calculate it? 6+2+2
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