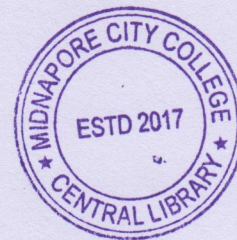


PG (NEW) CBCS
M.Sc. Semester-I Examination, 2018
FOOD SCIENCE & NUTRITION
PAPER: FSN-102
(NUTRITIONAL BIOCHEMISTRY)

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

- 1. Answer any four of the following questions: 2×4=8**
- | | |
|--|---|
| a. What do you mean by membrane receptor? | 2 |
| b. What is non-competitive enzyme inhibition? Give one example. | 2 |
| c. What is peptide bond? Explain it. | 2 |
| d. What do you mean by β-bend? | 2 |
| e. Draw the structure of trehalose mentioning its glycosidic bond. | 2 |
| f. What is the importance of saponification number of fat? | 2 |
| g. What is genetic code? | 2 |
- 2. Answer any four of the following questions: 4×4=16**
- | | |
|--|-------|
| a. Describe the structure of α-helix and β pleated sheet of protein with schematic representation. | 2+2=4 |
| b. Clarify monosaccharide with examples. | 4 |
| c. Write notes on:
i) Palmitic acid ii) Oleic acid | 2+2=4 |
| d. State briefly about initiation and termination codon in protein synthesis. | 2+2=4 |
| e. State the co-enzyme activities of vitamin E mentioning any four cases. | 4 |
| f. Describe the role of calcium in blood clotting. | 4 |
| g. State the dietary sources and functions of zinc. | 4 |
| h. What do you mean by quality protein? | 4 |
- 3. Answer any two of the following questions: 8×2=16**
- | | |
|--|-----------|
| a. Distinguish between nucleoside & nucleotide. Compare B-DNA, A-DNA and Z-DNA. Write the structure of starch. | 1+1+3+3=8 |
| b. What are cerebroside? Write about the various types of lipoproteins. State briefly about essential and non-essential amino acids with examples. | 3+3+2=8 |
| c. Describe the fluid-mosaic model of cell membrane. What are artificial sweeteners? State briefly about the formation of triglycerides from glycerol and fatty acids. | 4+2+2=8 |
| d. Write the role of Vitamin E and Vitamin C as antioxidant. What do you mean by DNA replication? | 6+2=8 |
