

2022

Food Science and Nutrition

[P.G.]

(CBCS)

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

PAPER-102

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. Write the name of four essential amino acids? 2
2. Why are sequestrants added to some food? 2
3. What is the importance of glutamic acid in wheat?
Which amino acid is low in wheat particularly? 1+1
4. Define non-enzymetic browning. 2
5. Write the amount of nutritional energy value of protein
in KJ and kcal. 1+1
6. Write the major two types of prolamins with examples. 1+1
7. Distinguish between fibrous and globular protein? 1+1

(2)

Group-B

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

8. What do you mean by acidic and alkaline foods?
Give one example of each alkaline, acidic, and neutral foods. 2+3
9. When a substance consider to be neutral?
10. Briefly describe the role of pH in food?
11. What do you mean by Isoelectric pH of protein?
12. Write the name of two foods agting as oxidizing and reducing agent? $2\frac{1}{2} + 2\frac{1}{2}$
13. Write the concepts of new product development. What are the four types of new products? 3+2
14. Write the names of different packaging materials. Write a short note on paper as packaging material. 2+3

Group-C

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

15. What is free, bound and entrapped water? Write the structure of water molecule. State briefly the properties of water. What is vapour pressure and boiling point of water?
3+2+3+2

(3)

16. Discuss in brief about the physical and chemical properties of proteins. State the protein-carbohydrate and protein lipid interaction in food. (3+3)+(2+2)
-