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M.Sc. RNLK-/102/21

2021

Food Science & Nutrition

[First Semester]

Paper - 102

Full Marks : 40

Time : 2 hours

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 of the following.

5×2=10

1. What is 'Maillard' reaction and how does it occur? 2
2. Why are 'Sequestrants' added to some food? 2
3. What is the importance of glutamic acid in wheat? Which amino acid low in wheat particularly? 1+1
4. Write the name of albumin and globulin present in legumes. What is sorption isotherm? 1+1

(Turn Over)

(2)

5. What are anticaking agents give examples? What is food emulsion? 1+1
6. Classify prolamins with examples. 2
7. What are the 4 sensory characteristics for 'Analysing food'? 2

Group - B

Answer any four questions. 4×5=20

8. What do you mean by acidic and alkaline food? Give an example of alkaline, acidic and neutral food? 2+3
9. When a substance consider to be neutral? 5
10. Briefly describe the foll of pH in food? 5
11. What do you mean by Isoelectric pH of protein? 5
12. Write the name of foods whith act as oxidizing agent and reducing agent? $2\frac{1}{2}+2\frac{1}{2}$
13. Explain the process of enzymatic browning/ oxidative browning? How is OPR important in oxidative browning? $2\frac{1}{2}+2\frac{1}{2}$

(3)

Group - C

Answer any one of the following. 1×10=10

14. 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+(1+1))=10

15. What is emulsion in mayonnaise? Write rancidity mentioning its importance. Write the functions of fat stabilizers?

3+1+2