

Roll No. :

Total No. of Questions : 11]

[Total No. of Printed Pages : 3

HOMESEEM-131

M.Sc. (Ist Semester) Examination Dec., 2022

FOOD AND NUTRITION

Paper - II

(Food Science)

Time : 3 Hours]

[Maximum Marks : 40

The question paper contains three Sections.

Section-A

(Marks : 1 × 10 = 10)

Note :- Answer all *ten* questions (Answer limit **50** words). Each question carries **1** mark.

Section-B

(Marks : 3 × 5 = 15)

Note :- Answer all *five* questions. Each question has internal choice (Answer limit **200** words). Each question carries **3** marks.

Section-C

(Marks : 5 × 3 = 15)

Note :- Answer any *three* questions out of five (Answer limit **500** words). Each question carries **5** marks.

Section-A

1. Attempt all questions :

- (i) Emulsions
- (ii) Osmotic Pressure

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- (iii) Hygroscopicity
- (iv) Food Science
- (v) Whey
- (vi) Humanoids
- (vii) Extruded Foods
- (viii) Rigor Mortis
- (ix) Immobilised Enzymes
- (x) Fermentation

Section-B

2. Write short note on caramelization and crystallization.

Or

Write short note on 'Emergence of Food Science as a discipline'.

3. Write short note on Browning reactions in food.

Or

Give a brief description of pigments in food processing.

4. What is pasteurization and its types.

Or

Write short note on flavour changes in fats and oils.

5. Write short note on enzymes in food processing.

Or

What is the role of minerals in food processing ?

6. What is food irradiation ? Describe the direct and indirect effect.

Or

Write short note on denaturation and coagulations in eggs.

Section-C

7. Explain the effect of heat, acid and salt on milk protein. Describe homogenization and evaporation of milk.
8. What is Gluten ? Explain the factors affecting hydration of gluten.
9. Explain the functional properties of starch.
10. What are colloidal systems ? Explain the various types of colloidal dispersions existing in food systems.
11. Explain the types of non-starch polysaccharides.