

Roll No :

Total No. of Questions : 11]

[Total No. of Printed Pages : 3

SP-721

M.Sc. (Final) Examination, 2021

FOOD AND NUTRITION

Paper - VI

(Food Science)

Time : 1½ Hours]

[Maximum Marks : 50

Section-A

(Marks : 2 × 10 = 20)

Note :- Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

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

2 each

1. (i) Gelatinization
- (ii) Hydrolysis

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(1)

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- (iii) Emulsification
- (iv) Tenderizers
- (v) Tannins
- (vi) Oxido reductases
- (vii) Thermal processing
- (viii) Hygroscopicity of sugars
- (ix) Anthocyanins
- (x) Food irradiation

Section–B

3 each

2. Explain Pectic Substances.

Or

Explain Maillard Reaction.

3. Browning reactions in Food.

Or

Explain the process of Fermentation.

4. Explain the processing of Milk.

Or

Identification of Natural Fats and Oils.

5. Role of Proteases.

Or

Anthocyanins in food processing.

6. Microwave food application.

Or

Food Irradiation.

Section–C

5 each

7. Explain the basic physiochemical concepts in food system.

8. Describe the functional properties of sugar.

9. Explain the following with reference to milk and milk products :

(i) Effect of heat, enzymes and acid

(ii) Processing of milk

10. Explain *two* of the following :

(i) Pigments in food processing

(ii) Enzymes in food processing

(iii) Flavour compounds

11. What chemical and nutritional alterations occur in food during irradiation and thermal processing ? Explain.