

AU-1141

M.Sc. (Home Science) (Food Science and Nutrition) Semester-I Examination

112FS45 : FOOD SCIENCE

Time : 2.30 Hours]

[Maximum Marks : 60

1. Answer any **one** of the following :

1.1 Write in detail about the physical properties of water.

1.2 Write in detail about the types of food dispersions.

12

2. Answer in two-three sentences :

2.1 Write the chemical composition of starch.

2

2.2 Write about the Gluten formation.

2

2.3 Gelatinisation.

2

2.4 Stages of sugar cookery.

2

2.5 Difference between batters and dough.

2

2.6 Process of crystallisation.

2

3. Do as directed :

3.1 Functional properties of fat (Tenderness).

2

3.2 'Mayonnaise' (Type of emulsion and procedure).

2

3.3 Trans fatty acids (Name).

2

3.4 Fat substitutes (Meaning).

2

3.5 Fat deterioration (Chemical changes).

2

3.6 Antioxidants (Definition).

2

4. Match the following pairs :

4.1 **Group—A**

- (i) Milk protein
- (ii) Egg-white protein
- (iii) Connective tissue protein
- (iv) Pulse protein
- (v) Egg-yolk protein
- (vi) Texturised vegetable proteins

Group—B

- (a) Ovalbumin
- (b) Globulins
- (c) Soya proteins
- (d) Casein
- (e) Collagen
- (f) Phosvitin

6

4.2 State whether the following statements are true or false.

- 4.2.1 Milk is the normal secretion of the mammary gland of mammals. 1
- 4.2.2 Egg contains about two parts yolk to one part egg white by weight. 1
- 4.2.3 Meat contains 15-20 percent proteins of outstanding nutritive value. 1
- 4.2.4 Fish oils are the richest sources of Vitamin A and D. 1
- 4.2.5 Toxic substance present in pulses cause a disease Lathyrism. 1
- 4.2.6 Tenderness is not the most desired quality in meat. 1

5. Answer any **one** of the following :

- 5.1 Write in detail about the pigments present in fruits and vegetables. 12
- 5.2 Write in detail about the role of enzymes in food processing. 12