

This question paper contains 3 printed pages]

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S. No. of Question Paper : 4646

Unique Paper Code : 2176000001

Name of the Paper : SEC : Essentials of Food Nutrients

Name of the Course : All Undergraduate Courses

Semester : II/IV/VI

Duration : 1 Hour

Maximum Marks : 30

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt only two questions out of four.

All parts of a question should be attempted together.

Each question carries 15 marks.

1. (a) Answer the following multiple choice type questions :

(1) Lipids function as :

(a) Structural components

(b) Energy storage

(c) Insulation

(d) All of the above

P.T.O.

(2) Trans fats are formed during :

- (a) Hydrolysis
- (b) Hydrogenation
- (c) Oxidation
- (d) Reduction

(3) Cholesterol is important for :

- (a) Protein synthesis
- (b) Hormone synthesis
- (c) Digestion only
- (d) Respiration

(4) Margarine contains :

- (a) Natural fats
- (b) Trans fats
- (c) Proteins
- (d) Minerals

(5) Fat-soluble vitamin is :

- (a) Vitamin C
- (b) Vitamin B
- (c) Vitamin A
- (d) Vitamin B12

(b) Explain auto-oxidation of fats and oil and the methods to prevent it.

(c) What is the role of vitamins in human health ? 5,5,5

2. (a) Draw the structure of Lactose and Maltose.

(b) What are glycosidic linkages ? Explain with suitable examples.

(c) Explain the role of carbohydrates in dental plaque formation. 5,5,5

3. (a) Describe the secondary structure of proteins. What types of bonds stabilize secondary structures ?

(b) Differentiate between animal and plant proteins. Discuss their nutritional value.

(c) Describe the structure and properties of lactose. 5,5,5

4. (a) Explain α -helix and β -pleated sheet structures of proteins. Give one factor affecting stability of tertiary structure.

(b) Compare the structure and functions of globular and fibrous proteins.

(c) Explain protein denaturation. Give factors causing denaturation. 5,5,5

