

(v) Temperature and pH cannot affect the structure of proteins,

(c) Mention the deficiencies caused by Vitamin A and Vitamin C. (5,5,5)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 3880 I

Unique Paper Code : 2176000001

Name of the Paper : SEC: Essential Food Nutrients

Name of the Course : **All Undergraduate Courses**

Semester : I / III / V

Duration : 1 Hour

Maximum Marks : 30

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **two** questions in all.
3. Each Question carries equal marks.

1. (a) What do you understand by reducing and non-reducing sugars? Categorize the given sugars as reducing and non-reducing: Galactose, Lactose, Fructose, Maltose, Sucrose.

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(b) Mention any five importance of fats in human body.

(c) Mention the significance of tertiary structure of proteins, elaborate with help of structure.

(5,5,5)

2. (a) Mention the natural sources of carbohydrates and discuss the role of any two sweeteners in the food industry.

(b) Mention any two tests to check the quality of fats. Also state the principle on which they are based.

(c) Write short notes on :

(i) Sources of Animal Proteins

(ii) Effect of bad cholesterol (5,5,5)

3. (a) What do you understand by Plant proteins. Discuss any three physico-chemical properties of Proteins.

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(b) Give at least two natural sources where you find the following: phospholipids, saturated fats, Omega-3-fatty acids, oils, waxes.

(c) Why vitamin B₁₂ is important. What happens if there is deficiency of vitamin B₁₂. (5,5,5)

4. (a) What happens when one molecule of glucose enters in the glycolysis pathway and how fate of pyruvate is associated.

(b) State true and false.

(i) α -helix belongs to primary structure of Proteins

(ii) Myosin protein present in muscles

(iii) Insulin is a hormone and chemically a protein

(iv) Immunoglobulins are not proteins by nature

P.T.O.