

11712

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(b) What are macro and micronutrients. Give two examples of each along with the diseases caused by their deficiency.

(c) Explain rancidity, and lipolysis in fats. (5,5,5)

(2000)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 11712 K

Unique Paper Code : 2176000001

Name of the Paper : SEC: Essential Food Nutrients

Name of the Course : **All 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 **two** questions. **All** parts of a question should be attempted together.
3. Each question carries **15** marks.

1. (a) Write true or false :

- (i) _____ are composed of long chains of amino acids linked by peptide bonds.
- (ii) _____ serve mainly as structural components in the body, not as an energy source.

P.T.O.

(iii) _____ acts as an antioxidant and helps in collagen synthesis.

(iv) _____ are organic compounds required in small amounts for metabolic functions.

(v) _____ are insoluble in water but soluble in organic solvents like ether and chloroform.

(b) Fill in the blanks :

(i) The building blocks of proteins are

(ii) The simplest carbohydrates that cannot be hydrolyzed further are called

(iii) The deficiency of Vitamin D causes in children.

(iv) Fats and oils are mainly composed of... and fatty acids.

(v) Iron (Fe) in food is essential for the formation of.... in the blood.

(c) What is auto-oxidation of oils, and how can it be prevented? (5,5,5)

2. (a) Explain trans fats, effect of frying, and flavor

reversion in edible oils.

(b) Describe omega-3, 6, and 9 fatty acids and their importance in nutrition.

(c) What are the dietary sources, functions, and deficiencies of proteins? (5,5,5)

3. (a) Define saponification value of oil/fat? Discuss its importance.

(b) Write a detailed note on vitamin C, highlighting its absorption, metabolic functions, antioxidant properties, and deficiency symptoms.

(c) Classify vitamins and minerals and describe the functions of any two macrominerals and two microminerals. (5,5,5)

4. (a) Write Short-notes on (Any Two) :

(i) Dental plaque

(ii) Carbohydrate metabolism

(iii) Galactosemia