

3. (a) What are vitamins? How are they classified? Give examples.
- (b) What are fats and oils? Discuss their biological functions.
- (c) Discuss the tertiary structure of proteins with eg. (5,5,5)
4. (a) Describe the auto-oxidation process of fats and oils. Give one preventive measure to avoid this process.
- (b) Discuss the various sources of proteins with suitable examples.
- (c) Discuss the role of carbohydrates as sweeteners in food industry. (5,5,5)

(300)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 3840

J

Unique Paper Code : 2176000001

Name of the Paper : SEC: Essential Food Nutrients

Name of the Course : All Undergraduate Courses

Semester : II / IV / VI

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. **All** questions carry equal marks.
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1. (a) Answer the following multiple-choice questions :
 - (i) Which of the following is a micronutrient
 - (a) Carbohydrate
 - (b) Proteins

P.T.O.

- (c) Vitamins
 - (d) Fat
- (ii) Which nutrient is essential for building and repairing tissues in human body?
- (a) Lipids
 - (b) Carbohydrates
 - (c) Proteins
 - (d) Vitamins
- (iii) Which vitamin is also called as sunshine vitamin?
- (a) Vitamin D
 - (b) Vitamin B6
 - (c) Vitamin B12
 - (d) Vitamin C
- (iv) Which of the following is not an essential fatty acid?
- (a) Omega-3 fatty acids
 - (b) Omega-6 fatty acids
 - (c) Omega-9 fatty acids
 - (d) Cholesterol

- (v) Which vitamin helps in clotting of blood :
- (a) Vitamin A
 - (b) Vitamin C
 - (c) Vitamin K
 - (d) Vitamin B12
- (b) Write short note on the following (**any two**) :
- (i) Rancidity
 - (ii) Lactose intolerance
 - (iii) Role of vitamins for maintaining healthy body.
- (c) Write the structure of following sugars :
- (i) Glucose
 - (ii) Sucrose (5,5,5)
2. (a) What are essential fatty acids? What are their benefits for the human body?
- (b) What are carbohydrates? How will you distinguish between a reducing and a non reducing sugar? Give one example of each.
- (c) What is the role of minerals in maintaining optimal health? Explain giving suitable examples. (5,5,5)