

4. (a) What is the general formula of carbohydrates? Differentiate between oligosaccharide and polysaccharides.
- (b) What are the food sources of iron? What happens due to iron deficiency? Explain in details.
- (c) What are essential fatty acids? Give examples along with their dietary sources. (5,5,5)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 4733

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Unique Paper Code : 2176000001

Name of the Paper : SEC : Essential food nutrients

Name of the Course : **B.Sc. (Hons) / B.Sc. (prog) - SEC**

Semester : IV

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** question carry equal marks.

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

(i) A substance needed by the body for growth, energy, repair and maintenance is called a

(A) Nutrient (B) Carbohydrate

(C) Calorie (D) Fatty acid

(ii) Sugar present in milk is :-

(A) Fructose (B) Lactose

(C) Galactose (D) Sucrose

(iii) Which of the following is the correct match :-

(A) Vitamin A - Calciferol

(B) Vitamin E - Tocopherol

(C) Vitamin D - Thiamine

(D) Vitamin K - Ascorbic acid

(iv) Common examples of hexose sugar is / are:-

(A) Glucose (B) Fructose

(C) Erythrose (D) both A and B

(v) Simple lipids are esters of :-

(A) Amino acids (B) Phosphorus

(C) Proteins (D) Fatty acids with glycerol

(b) Write short notes on the following (**any two**) :

(i) Monosaccharides

(ii) Disaccharides

(iii) Polysaccharides

(c) What are lipids? Explain their general chemical and physical properties and compositions. (5,5,5)

2. (a) Write the names of fats soluble vitamins. What are the sources and functions of vitamin K?

(b) Write the classification of fatty acids. Give two examples of unsaturated fatty acids?

(c) What are minerals? Write the main functions of calcium and phosphorus as mineral in human body? (5,5,5)

3. (a) What is the main role of carbohydrates? Discuss about of the carbohydrate metabolism.

(b) Differentiate between fibrous and globular proteins, providing examples of each.

(c) Define the term disaccharides. Draw the structure of lactose and maltose. (5,5,5)