

AR - 493

4. Define and classify carbohydrate with example.  
Give its food sources and function.

OR

What is polysaccharide ? Define classify, and state  
it's food sources. 12

5. Solve the questions :

- (a) Give the classification with examples of  
proteins. 4
- (b) Explain essential amino acids. 4
- (c) Discuss Denaturation of protein. 4

OR

- (p) Discuss on non essential amino acids. 4
- (q) Give the functions of protein. 4
- (r) Explain properties of protein. 4

6. (a) Discuss PUFA and MUFA. 4
- (b) Define and classification of lipids. 4

First Semester B, Sc. (Part - I) Examination

IS : FOOD SCIENCE

(Basic Chemistry of Foods)

P. Pages : 5

Time : Three Hours ]

[ Max. Marks : 80

- Note :** (1) All questions are compulsory.  
(2) Draw diagram, equation and reaction  
wherever necessary.  
(3) Question no. two to seven carry equal  
marks.

1. (A) Fill in the blanks :—

- (i) Simple lipids chemically made from  
\_\_\_\_\_
- (ii) Body building Nutrient is \_\_\_\_\_
- (iii) Goitor disorder is due to deficiency of  
\_\_\_\_\_
- (iv) General formula of carbohydrate is  
\_\_\_\_\_ 2

- (B) Choose correct alternative :

- (j) The essential amino acid is  
(a) Methionine

- (b) Proléine  
 (c) Cyséine  
 (d) Alaéine
- (ii) Carotene is precursor of vit \_\_\_\_\_  
 (a) Vi D  
 (b) Vi-C  
 (c) Vit-D  
 (d) Vit-A
- (iii) Good quality protein is depend on —  
 (a) All essential amino acid present in foods.  
 (b) All nutrients present in food sources.  
 (c) All cereals food sources.  
 (d) All pulses food sources
- (iv) The pH of acidic substance is -  
 (a) Below 7  
 (b) Above 7  
 (c) Equal to 7  
 (d) None of these. 2

- (C) Answer in **one** sentence :  
 (i) What is vitamins ?  
 (ii) Define boiling point.  
 (iii) Define nutrition.  
 (iv) What is PUFA ? 4

2. (a) Explain surface Tension. 4  
 (b) Write the units of pressure, density. 4  
 (c) Explain sol and gel. 4

**OR**

- (p) Define pH and Buffer. 4  
 (q) Explain Emulsion with example. 4  
 (r) What are unit operation ? Give classification. 4

3. What is BMR ? Explain factors affecting BMR.

**OR**

Determine the energy value of food by Bomb Calorimeter. 12

- (c) Classify compound lipid with example. 4

**OR**

- (p) Discuss the functions of fat. 4

- (q) Discuss on saturated and unsaturated fatty acids. 4

- (r) Explain properties of fat. 4

7. Explain the following :

- (a) Classification of vitamin. 4

- (b) Give any two deficiency symptoms of fat soluble vitamins-A and D. 4

- (c) Discuss on Importance of water soluble vitamins. 4

**OR**

- (p) Give classification of minerals. 4

- (q) Discuss on thiamin and Ribiflavin. 4

- (r) Give the food sources of fat soluble and water soluble vitamins. 4



