

6. Write the following questions :

- (A) Iodine number of fat. 4
 (B) Classify fatty acids. 4
 (C) Physical and Chemical properties of fat and oil. 4

OR

- (D) Rancidity of fat and oil. 4
 (E) Define saturated and unsaturated fatty acid with two examples. 4
 (F) Saponification value of fat. 4

7. What are Vitamin ? Classify them, give sources, chemistry of water soluble and fat soluble vitamins. 12

OR

Define and classify minerals. Discuss importance of Iron and Calcium. 12

AP-409

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

1S : FOOD SCIENCE

(Basic Chemistry of Foods)

Time—Three Hours]

[Maximum Marks—80

N.B. :- (1) **ALL** questions are compulsory.

(2) Draw diagrams, equation and reaction wherever necessary.

(3) Question Nos. 2 to 7 carrying equal marks.

1. (A) Fill in the blanks : 2

(i) Normal range of cholesterol in human body is _____.

(ii) Carbohydrates having six carbon atoms including an aldehyde group are known as _____.

(iii) Long form of BMI is _____.

(iv) The general formula of carbohydrate is _____.

(B) Choose the correct answer : 2

(i) The citrus fruit are rich in vitamin :

(a) Vitamin 'A' (b) Vitamin 'B'

(c) Vitamin 'C' (d) Vitamin 'E'

(ii) Which element is not found in Carbohydrate :

- (a) Sulfur (b) Carbon
(c) Oxygen (d) Nitrogen

(iii) Dietary fibers are :

- (a) Proteins (b) Carbohydrates
(c) Fats (d) Vitamins

(iv) The pH of acidic substances is :

- (a) Below 7 (b) Above 7
(c) Equal to 7 (d) None of these

(C) Answer in **one** sentence : 4

- (i) What is PUFA ?
(ii) What is fat soluble vitamins ?
(iii) Define Denaturation.
(iv) Define equivalent weight.

2. Write the following questions :

- (A) Describe Buffer. 4
(B) Explain melting point with examples. 4
(C) Describe surface tension. 4

OR

- (D) Write on Viscosity. 4
(E) What are unit operations ? Give the classification with example. 4
(F) Define sol, gel and emulsion. Give the example. 4

3. What is BMR ? Explain the factors affecting BMR. 12

OR

What are basic food group ? Which nutrients occur in it and give calorific value of foods ? 12

4. Describe the following :

- (A) Polysaccharides. 4
(B) Role of fiber in diet. 4
(C) Classification of carbohydrates. 4

OR

- (D) Pectic substance. 4
(E) Nutritional importance of carbohydrates. 4
(F) Give importance of monosaccharides. 4

5. Answer the following questions :

- (A) Define protein. 4
(B) Classification of amino acids. 4
(C) Factors affecting denaturation of protein. 4

OR

- (D) Essential amino acids with food sources. 4
(E) Properties of proteins. 4
(F) Function of proteins. 4