

C 80845

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Name.....

Reg. No.....

**FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION  
APRIL 2020**

Common Course

**A 14—NUTRITION AND HEALTH**

(2014 Admissions)

Time : Three Hours

Maximum : 80 Marks

**Part A.**

I. Answer *all* the questions. Each question carries 1 mark :

1 With respect to water distribution in tissues, maximum amount of water is present in \_\_\_\_\_.

- (a) Extracellular. (b) Plasma.  
(c) Intracellular. (d) Lymph.

2 \_\_\_\_\_ is not digested by digestive system.

- (a) Gums. (b) Sucrose.  
(c) Amylose. (d) Amylopectin.

3 \_\_\_\_\_ is the essential amino acid.

- (a) Glycine. (b) Glutamine.  
(c) Lysine. (d) Alanine.

4 \_\_\_\_\_ is the enzyme that digests lipids.

- (a) Papain. (b) Proline.  
(c) Amylase. (d) Lipase.

5 The following has the Calorific value of 4.0 kcal/g.

- (a) Carbohydrate. (b) Fat.  
(c) Dietary fibre. (d) Vitamins.

**Turn over**

- 6 Kwashiorkor is caused due to the deficiency of \_\_\_\_\_ nutrient in the diet.
- (a) Vitamins. (b) Carbohydrate.  
(c) Fat. (d) Protein.
- 7 \_\_\_\_\_ vitamin has an important function to increase immune function of the body.
- (a) Vitamin A. (b) Vitamin B.  
(c) Vitamin C. (d) Vitamin D.
- 8 Fruits and vegetables are good source of \_\_\_\_\_ nutrient.
- (a) Protein. (b) Fat.  
(c) Vitamins. (d) Cholesterol.
- 9 One of the functions of minerals is :
- (a) To give energy source. (b) Co-factor of enzymes.  
(c) To increase body weight. (d) Insulate the organ.
- 10 \_\_\_\_\_ the major disaccharide in milk.
- (a) Glucose. (b) Fructose.  
(c) Lactose. (d) Starch.

(10 × 1 = 10 marks)

### Part B

II. Answer only *five* questions. Each question carries 2 marks :

- 1 Name five food groups with examples.
- 2 Write a short note on protein energy malnutrition.
- 3 Elucidate the energy requirement during pregnancy and lactation as per FAO/WHO.
- 4 Write a short note on the deficiency of carbohydrates.
- 5 How water is distributed in different body tissues ?
- 6 Give a brief account on requirement of fat.
- 7 Write briefly on factors that increase the vitamin bioavailability.

(5 × 2 = 10 marks)

**Part C**

III. Answer any *six* questions. Each question carries 5 marks :

- 1 Explain briefly on specific dynamic action of foods.
- 2 Define calorie. Compute the calorific values of cereals and pulses.
- 3 Write the importance of water in human nutrition.
- 4 Give a brief account on digestion of carbohydrates.
- 5 Discuss on simple proteins with examples.
- 6 Write the functions of calcium
- 7 Expand PUFA and give two examples ? Write briefly on their importance in human nutrition.
- 8 (a) What is dietary fiber ? Give example for dietary fibre.  
(b) Give the nutritional importance of soluble dietary fibre.

(6 × 5 = 30 marks)

**Part D**

IV. Answer only *two* questions. Each question carries 15 marks :

- 1 Discuss on the following aspects :
  - (a) Energy requirement of infants as per the FAO/WHO guidelines.
  - (b) Factors affecting basal metabolism.
- 2 (a) Group the vitamins based on their solubility.  
(b) Discuss on *Vitamin A* under the following aspects :
  - (i) Dietary sources.
  - (ii) Requirement.
  - (iii) Diseases caused due to deficiency.
- 3 Discuss on *iron* under the following heads :
  - (a) Sources.
  - (b) Functions.
  - (c) Factors affecting the absorption.

Turn over

4 Discuss on *water* under the following heads :

- (a) Importance.
- (b) Sources.
- (c) Functions.
- (d) Water balance.

(2 × 15 = 30 marks)