

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
MSc DEGREE EXAMINATION DECEMBER 2019
(Second Semester)

Branch - NUTRITION, FOOD SERVICE MANAGEMENT & DIETETICS

PRINCIPLES OF NUTRITION

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 1 = 10)

- 1 State the physiological fuel value of 1g of fat
 - (i) 9 kcal
 - (ii) 4 kcal
 - (iii) 5 kcal
 - (iv) 7 kcal
- 2 The condition of health of the individual as influenced by the utilisation of the nutrients is termed as
 - (i) nutritional status
 - (ii) optimal nutrition
 - (iii) bionutrition
 - (iv) malnutrition
- 3 Maltose is a disaccharide of
 - (i) glucose and galactose
 - (ii) glucose and glucose
 - (iii) glucose and fructose
 - (iv) glucose and lactose
- 4 The intracellular fluid compartment refers to all water found in
 - (i) areas outside the body cell
 - (ii) areas within gastrointestinal tract
 - (iii) all cells of the body
 - (iv) all cells of the body and the areas outside the cell
- 5 Which of the following is a w-6 fatty acid?
 - (i) a Linolenic acid
 - (ii) Linoleic acid
 - (iii) Palmitic acid
 - (iv) Cerebronic acid
- 6 Which of the following amino acid is a limiting amino acid in cereals?
 - (i) Lysine
 - (ii) Methionine
 - (iii) Glycine
 - (iv) Isoleucine
- Keratinisation of the cornea may be induced by the deficiency of which vitamin?
 - (i) Vitamin A
 - (ii) Vitamin D
 - (iii) Vitamin K
 - (iv) Vitamin E
- 8 Pellagra characterized by dermatitis, dementia and diarrhea is caused by the severe deficiency of
 - (i) Vitamin B1
 - (ii) Riboflavin
 - (iii) Niacin
 - (iv) Vitamin B6
- 9 Which one among the following minerals helps in clotting of blood and conduction of nerve impulses?
 - (i) Phosphorus
 - (ii) Calcium
 - (iii) Iron
 - (iv) Iodine
- 10 Menkes' Kinky hair syndrome is due to
 - (i) copper absorption disorder
 - (ii) zinc absorption disorder
 - (iii) cobalt deficiency
 - (iv) selenium deficiency

SECTION - B (25 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 5 = 25)

- 11 a Write a brief note on thermic effect of food.
OR
b Describe in brief the concept of reference man and women.
- 12 a Write a short note on functions of water in the body.
OR
b Discuss the importance of electrolytes in the body.
- 13 a Outline the nutritional classification of protein and comment on the importance of mutual supplementation of dietary protein.
OR
b Write a short note on PER and NPU.
- 14 a Discuss the sources and functions of Vitamin C.
OR
b Brief on the sources and functions of Vitamin D.
- 15 a Discuss the role of calcium in relation to osteoporosis and osteomalacia.
OR
b Discuss the functions of iodine.

SECTION -C (40 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 8 = 40)

- 16 a Elaborate on the measurement of basal metabolism by indirect calorimetry.
OR
b Define Basal metabolism. Discuss the factors affecting BMR.
- 17 a Enumerate the role of dietary fibre in maintenance of health.
OR
b Elaborate on the functions of carbohydrates.
- 18 a Describe the process of digestion and absorption of lipids.
OR
b Elaborate on the factors affecting protein utilization.
- 19 a Elaborate on the sources, functions and deficiency symptoms of Vitamin A.
OR
b Discuss the role of B vitamins in metabolism.
- 20 a Write a detailed note on iron - its sources, functions and effects of deficiency.
OR
b Give the importance of phosphorus in human nutrition.