PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2022
(Second Semester)

Branch - NUTRITION, FOOD SERVICE MANAGEMENT AND DIETETICS

PRINCIPLES OF NUTRITION

Time: Three Hours Maximum: 50 Marks

SECTION-A (5 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (5 x 1 = 5)

1. What is the basal metabolism for an individual for 24 hours?
   (i) 1320 kcal (ii) 1247 kcal (iii) 1490 kcal (iv) 1200 kcal
2. Name the disaccharide which yields galactose and glucose in the intestinal muosa.
   (i) Maltose (ii) Sucrose (iii) Fructose (iv) Lactose
3. Find the proteolytic enzyme present in gastric juice which hydrolyses peptide bonds?
   (i) Protease (ii) Pepsin (iii) Peptidase (iv) Trypsin
4. Identify the clinical feature of Vitamin A deficiency in which there is dryness of the cornea occurs.
   (i) Night blindness (ii) Bitot's Spots
   (iii) Corneal Xerosis (iv) Keratomalacia
5. Choose the mineral deficiency which causes Menkes' kinky hair syndrome.
   (i) Zinc (ii) Copper (iii) Iron (iv) Chromium

SECTION – B (15 MARKS)
Answer **ALL** questions
ALL Questions Carry **EQUAL** Marks (5x3=15)

6. (a). State the definitions for nutritional status, nutritional care and optimum nutrition.

   OR

   (b).Explain the specific dynamic action of food?

7. (a) Classify the carbohydrates based on their chemical composition?

   OR

   (b). Outline on the distribution of water in the body.

8. (a) Summarise the functions of Essential Fatty Acids.

   OR

   (b). Describe the factors affecting protein utilization?

9. (a).Narrate the functions and toxicity of Vitamin K in the body.

   OR

   (b). Produce the food sources of folic acid and niacin.

10. (a). Sketch on the distribution of calcium.

    OR

    (b).Bring out the functions of phosphorus.

Cont...

SECTION – C (30 Marks)

Answer **All** questions

ALL Questions Carry **EQUAL** marks (5X6 = 30)

11. (a)Elucidate the working principle of bomb calorimeter with a neat sketch.

OR

(b) Discuss on the factors affecting Basal Metabolic Rate.

12. (a) Highlight on the role of dietary fibre in maintenance of health

OR

(b) Point out the mechanism of acid base regulation in the body.

13. (a) Classify lipids and explain its functions.

OR

(b) Trace the methods used to assess quality of proteins.

14. (a).Outline the properties, functions and deficiency of Vitamin A.

OR

(b) Infer on the food sources, functions and deficiency of Vitamin B1.

15. (a) Distinguish between osteoporosis and osteomalacia and mention the sources of calcium.

OR

(b) Summarise the functions, distribution and requirement of iron.

Z-Z-Z END