



BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Optomety-2022/B.Optomety-2023/B.Optomety-2024

Course Name – Nutrition

Course Code - BOPTOC104

(Semester I)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Select the following food component which is required for the growth and maintenance of the human body?
 - a) Carbohydrates
 - b) Protein
 - c) Fat
 - d) Minerals
- (ii) Identify from the following food components which give energy to our body?
 - a) Proteins
 - b) Vitamins
 - c) Minerals
 - d) Carbohydrates
- (iii) Identify the following food item provides dietary fibre?
 - a) Fish
 - b) Fat
 - c) Fruits and vegetables
 - d) Water
- (iv) Select from the following minerals which helps to build strong bones and teeth.
 - a) Iodine
 - b) Calcium
 - c) Iron
 - d) Sodium
- (v) Select which one is not a component of food.
 - a) Fats
 - b) Fibres
 - c) Water
 - d) None of these
- (vi) Name the most significant and essential mineral required for our body is _____.
 - a) Iron
 - b) Sodium
 - c) Calcium
 - d) All of these
- (vii) Select which one is not lipid.
 - a) Fats
 - b) Oils
 - c) Proteins
 - d) Waxes
- (viii) The Deficiency of vitamin E is associated with _____.
 - a) Soft Bones
 - b) Bleeding in gums
 - c) Weakness in muscles
 - d) Neurological disorders

(ix) Select from the following food group that provides the body best source of energy.

- a) Milk and cheese
- b) Meat group
- c) Fats, oils and sweets
- d) Bread and cereals

(x) An index used to measure stunting or chronic malnutrition.

- a) Weight for height or length
- b) MUAC for age, sex and height
- c) Weight for age
- d) Height for age

(xi) Thickening of eye lenses that is reported to impair vision and can lead to blindness-

- a) Bitot's spots
- b) Xerophthalmia
- c) Corneal xerosis
- d) Cataracts

(xii) Select which of the following is not a suitable solvent for oils and fats.

- a) Benzene
- b) CCl_4
- c) CHCl_3
- d) Water

(xiii) Select from the following which is used in the reaction called saponification.

- a) strong base
- b) strong acid
- c) hydrogen
- d) nickel

(xiv) Classify steroid.

- a) phospholipid
- b) glycerol
- c) wax
- d) cholesterol

(xv) In the peptide Ser-Lys-Arg-Gly, the amino acid observed in N-terminal is.

- a) Gly
- b) Lys
- c) Arg
- d) Ser

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Discuss about two functions of food. (3)
3. Explain how fruits act as important diet in human. (3)
4. Explain how milk and cheese act as important diet in human. (3)
5. Differentiate between complete protein and incomplete protein. (3)
6. Estimate the recommended daily intake of fruits and vegetables for an adult following a 2,000-calorie balanced diet. (3)

OR

Evaluate the adequacy of micronutrients in a balanced diet. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Discuss about complete proteins with example of a food source. (5)
8. Explain protein-energy malnutrition (PEM), and how does it affect individuals, especially children in developing countries. (5)
9. Discuss the different method of Direct Nutritional assessment. (5)
10. Discuss about the function of Vitamin-A. (5)
11. A person weighs 70 kg and height is 1.75 m. Calculate BMI and comment on it. (5)
12. A 5-year-old child from a low-income background presents with difficulty seeing in low light. He is underweight and has a history of frequent illnesses. His diet consists mainly of starchy foods with little protein or fat. Analyze how protein malnutrition contribute to night blindness. (5)

OR

A 45-year-old male presents with chest discomfort and mild shortness of breath. He has a history of smoking (20 years) and a sedentary lifestyle. His lipid profile shows LDL 225 mg/dl, cholesterol 220 mg/dl and HDL 12. Correlate the result with clinical diagnosis. (5)