



End Term (Even Semester) Examination June 2025

Roll no.....

Name of the Course and semester: B.Sc. Nursing II semester

Name of the Paper: Applied Biochemistry & Applied Nutrition & Dietetics

Paper Code: BIOC 135 NUTR 140

Time: 3 hours

Maximum Marks: 75

Note: Attempt All Sections

Section –A (Applied Biochemistry)

(1x4 = 4 marks)

I. Multiple choice questions

1. What does HbA1c measures?

(a) Current blood glucose level (b) Average blood glucose level over past 2-3 months
(c) The amount of insulin in the blood (d) The life span of red blood cells

2. Which of the following statements is true about proteins?

- (a) Proteins are made up of amino acids.
 - (b) Proteins are essential for the development of skin, teeth and bones.
 - (c) Protein is the only nutrient that can build, repair and maintain body tissues.
 - (d) All of the above

- ### 3. What is a healthy total cholesterol level?

- (a) $<100\text{mg/dl}$ (b) $\geq200 \text{ mg/dl}$
 (c) $<200 \text{ mg/dl}$ (d) None of the above

4. What is a bond between amino acids called?

II. Short Answer (Attempt any three)

(3x5 = 15 marks)

- Short Answer (Attempt any one)**

 1. Give the digestion, absorption and metabolism of Proteins.
 2. Explain glucose tolerance test with the help of the curve along with its interpretation.
 3. Define pH. Also give Arterial blood gas (ABG) test normal values.
 4. Give the classification of fatty acids. Also give its clinical significance.

III. Very Short (*Attempt any three*)

(3x2 = 6marks)

1. Explain Van den berg test. Also give the type and causes of Jaundice.
 2. Give the parameters and normal values for renal tests.
 3. Define buffer.
 4. Explain HbA1C and hypoglycemia.

SECTION-B (Applied Nutrition and Dietetics)

I. Multiple choice questions

(1x8= 8 marks)

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3. Bond between amino acid is known as-

 - (a) Hydrogen bond
 - (b) Acidic bond
 - (c) Peptide bond
 - (d) Ionic bond

4. Each fat molecule is made up of four compounds-One glycerol & three fatty acids

 - (a) One glycerol & three fatty acids
 - (b) Two glycerol & two fatty acids
 - (c) Three glycerol & one fatty acids
 - (d) One glycerol & two fatty acids

5. Standardization, certification and quality of food produced is given by:

 - (a) AGMARK
 - (b) BIS
 - (c) FPO
 - (d) FSSAI

6. Night blindness is caused by deficiency of-

 - (a) Retinol
 - (b) Folate
 - (c) Tocopherol
 - (d) Iron

7. Which method should be used for imparting nutrition education?

 - (a) Personal talks
 - (b) Group discussion
 - (c) Posters, charts
 - (d) All of the above

8. Transfusing heat by direct contact is called-

 - (a) Roasting
 - (b) Convection
 - (c) Conduction
 - (d) Radiation

(2+3+5= 10 marks)

II. Essay Questions (*Attempt any one*)

1. (a) Define Cooking.
(b) Discuss the principles and benefits of cooking.
(c) Explain moist heat cooking methods.
 2. (a) Define Nutritional Assessment.
(b) Discuss purposes of nutritional education.
(c) Explain methods of nutritional education.

(4x5 = 20 marks)

III. Short Answer Questions (Attempt any four)

- 1. Factors affecting food and nutrition.
 - 2. Functions of Carbohydrates.
 - 3. ICDS program.
 - 4. Essential Amino acids.
 - 5. Functions of fat.

(6x2 = 12 marks)

IV. Very Short Answer Questions (Attempt any six).

1. Classification of Vitamins.
 2. Basic food groups
 3. Moist heat cooking methods.
 4. Feeding techniques.
 5. Objectives of therapeutic diet
 6. Energy
 7. Describe macro & micronutrients.