

Second semester B.Sc. (Nursing) Examination, Summer - 2023  
(Phase - III)

APPLIED BIOCHEMISTRY AND APPLIED NUTRITION & DIETETICS

Total Duration : Section A+B+C = 3 Hours

Section A Marks : 12

**SECTION - A (MCQ)**

- Instructions :**
- 1) Fill (dark) the appropriate **empty circle** below the question number once only.
  - 2) Use **black ball point pen** only.
  - 3) **Each question carries one mark.**
  - 4) A student will not be allotted any marks if he/she overwrites, strikes out or puts white ink on the circle once filled (darkened).
  - 5) Do not write anything on the **blank portion of the question paper.** If written anything, such type of act will be considered as an attempt to resort to unfair means.

**1) Multiple Choice Questions :** [12 × 1 = 12]

1) Bilirubin in serum can be measured by

- |                           |                       |
|---------------------------|-----------------------|
| a) Fouchet's reaction     | <input type="radio"/> |
| b) Ehrlich's reaction     | <input type="radio"/> |
| c) Van den bergh reaction | <input type="radio"/> |
| d) Schlesinger's reaction | <input type="radio"/> |

2) Storage form of energy in human is

- |                  |                  |
|------------------|------------------|
| a) Cholesterol   | b) Triglycerides |
| c) Ketone bodies | d) Oleic acid    |

3) Which of the following is hypoglycemic hormone.

- |             |                   |
|-------------|-------------------|
| a) Insulin  | b) Glucagon       |
| c) Cortisol | d) Growth hormone |

- 4) Which one of the following is primary ketone body?
- acetone
  - $\beta$ -hydroxy butyric acid
  - acetoacetic acid
  - lactic acid
- 5) Food preservation is essential to
- Improve the quality of food
  - To improve digestibility of food
  - Improve palatability of food
  - To help mold growth
- 6) One of the examples of protective food is
- Green leafy vegetables
  - Milk
  - Egg
  - Pulses
- 7) Obesity can be caused by
- |             |                  |
|-------------|------------------|
| a) Proteins | b) Carbohydrates |
| c) Fats     | d) Minerals      |
- 8) Children with pot belly is an indication of
- |            |                |
|------------|----------------|
| a) Goiter  | b) Kwashiorkor |
| c) Anaemia | d) Marasmus    |
- 9) The Iron deficiency anaemia occurs more commonly among
- |             |            |
|-------------|------------|
| a) Children | b) Old age |
| c) Women    | d) Men     |

- 10) Oil and fats are the example of
- a) Compound lipids
  - b) Derived lipids
  - c) Simple lipids
  - d) Waxes
- 11) 'Stewing' is associated with which method of cooking
- a) Dry heat
  - b) Moist heat
  - c) Electrical
  - d) Charcoal
- 12) Methionine is
- a) semi essential amino acid
  - b) a fatty acid
  - c) essential amino acid
  - d) non-essential amino acid

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**SPACE FOR ROUGH WORK**

[Total No. of Pages : 2

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**APPLIED BIOCHEMISTRY AND APPLIED NUTRITION & DIETETICS**

Total Duration : Section A+B+C = 3 Hours

Section B & C Marks : 63

**SECTION - B & SECTION - C**

- Instructions :**
- 1) Use **black** ball point pen only.
  - 2) Do not write anything on the **blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
  - 3) **All questions are compulsory.**
  - 4) The number to the **right** indicates **full marks**.
  - 5) Draw diagrams **wherever necessary**.
  - 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.
  - 7) Use a common answer book for section B & C.

**SECTION "B"**

**(Applied Biochemistry)**

- 2) Short Notes: (Any Three out of Four) [3 × 5 = 15]
  - a) Describe Glycolysis and explain brief about Reaction sequence and energy generation.
  - b) What are blood buffers and explain their role in maintaining blood pH.
  - c) Explain clinical importance of Blood urea.
  - d) Write a note on Electrophoresis.
  
- 3) Very Short Notes: (Any Three out of Four) [3 × 2 = 6]
  - a) Describe in brief about beta oxidation of fatty acids
  - b) Transamination reactions.
  - c) Properties of isoenzymes
  - d) Immunoglobulins.

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P.T.O.

**SECTION "C"****(Applied Nutrition & Dietetics)**

- 4) Essay/Situation Type Question : (Any One out of Two) [1×10=10]
- Enumerate major nutritional problems in India. Discuss the methods of nutritional education, Role of Community Health Nurse in implementation of nutritional programs in India.
  - Discuss the Principles of Menu planning. Explain the factors affecting menu planning, Prepare menu plan for diabetic client.
- 5) Short Notes: (Any Four out of Five) [4×5=20]
- Direct and indirect method of measuring energy.
  - Functions of Ascorbic Acid.
  - Classification of Lipids.
  - Explain in brief about National Nutritional Policy.
  - Explain the role of the food handlers in food borne diseases.
- 6) Very Short Notes: (Any Six out of Seven): [6×2=12]
- Types of food fortifications.
  - Functions of Riboflavin.
  - Functions of water.
  - Factors influencing food habits.
  - Enumerate Food Groups.
  - Objectives of Midday Meal Programme. (MDMP)
  - Write the difference between Kwashiorkor and Marasmus. (Any Four)

