

Second Semester B.Sc. Nursing Examination, (Phase-III) Winter - 2023  
APPLIED BIOCHEMISTRY & APPLIED NUTRITION & DIETETICS

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

Section A Marks : 12

SECTION - A (MCQ)

- Instructions :**
- 1) Use **black ball point pen only.**
  - 2) **Each question carries one mark.**
  - 3) **Rough work should be done only on the Blank Space provided on the question paper booklet. If the rough work done is found else where other than the space provided on question paper or anywhere on answerbook such an act will be treated as an attempt to resort to Unfair means.**

**1. Multiple Choice Questions :**

[12×1=12]

- 1) Disaccharide lactose is composed of \_\_\_\_\_
  - a) Glucose and Mannose
  - b) Glucose and Galactose
  - c) Glucose and Glucose
  - d) Glucose and Fructose
- 2) Creatine kinase level in serum is increased in
  - a) Myocardial Infarction
  - b) Prostate Cancer
  - c) Hepatitis
  - d) Bone disease
- 3) The only immunoglobulin that can cross the placenta and transfer the mothers immunity to the developing fetus is \_\_\_\_\_
  - a) IgG
  - b) IgA
  - c) IgD
  - d) IgM
- 4) Which one of the following enzyme activities increase in bone diseases?
  - a) alkaline transaminase
  - b) alkaline phosphatase
  - c) aspartate transaminase
  - d) acid phosphatase

5) Parameters used for measurement of malnutrition by Gomez criteria are

- a) Height for age                      b) Weight alone  
c) Weight for age                      d) Weight for Height

6) Fat is much more concentrated form of fuel yielding

- a) 4 kcals/s                              b) 7 kcals/s  
c) 11 kcals/s                            d) 9 kcals/s

7) The enzyme in the mouth that begins the digestion of starch is

- a) Salivary lipase                      b) Pepsin  
c) Sucrase                              d) Lipase

8) ICDS is expanded as

- a) Integrated Child Development services  
b) International Child Delinquency Services  
c) Immediate Child Death Services  
d) Indian Child Development Services

9) Peeling and exposing fruits can bring loss of

- a) Vitamin A                              b) Vitamin E  
c) Vitamin C                              d) Vitamin B6

- 10) The water soluble vitamins are
- a) A and C
  - b) A, D, E and K
  - c) B and C
  - d) B, D, E and K
- 11) Egg flip is a preparation given for
- a) Constipation
  - b) Pellagra
  - c) Vitamin A deficiency
  - d) Protein energy malnutrition
- 12) The only form of carbohydrate that the brain uses for energy
- a) Glycogen
  - b) Galactose
  - c) Glucose
  - d) Glucagon



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SPACE FOR ROUGH WORK

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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 answerbook for section B & C.**

**SECTION-B**

**(Applied Biochemistry)**

2. Short notes : (any three out of four) [3×5=15]

- a) Explain Pentose Phosphate Pathway of Glucose oxidation.
- b) Write a note on transamination and deamination reactions in protein metabolism.
- c) Name lipoproteins and mention one functions of each. Add a brief note on atherosclerosis.
- d) Discuss factors regulating blood sugar level.

3. Very Short Notes : (any three out of four): [3×2=6]

- a) Draw structure of immunoglobulins.
- b) Write a note on essential fatty acids.
- c) Enumerate types of jaundice.
- d) Give four examples of biologically important peptides.

### SECTION-C

#### (Applied Nutrition & Dietetics)

4. Essay/Situation Type Question : (Any One out of Two) [1×10=10]

- a) Define Balanced Diet? What are the elements of balanced diet? Discuss the role of fibers in balanced diet.
- b) Discuss the nutritional programmes in India. What are the methods of assessing the nutritional status of a child below five years? Explain the role of nurse in nutritional programmes in India.

5. Short Notes: (Any Four out of Five) [4×5=20]

- a) Food Adulteration Act.
- b) Functions of Carbohydrate.
- c) Discuss the Aims of supplementary nutrition intake under I.C.D.S Scheme.
- d) Explain the Methods of food preservation.
- e) Discuss the factors affecting Basal Metabolic Rate.

6. Very Short Notes: (Any Six out of Seven):

[6×2=12]

- a) First Class Protein.
- b) Compositions of body fluid.
- c) Deficiency manifestations of water-soluble vitamins.(Any three)
- d) Body Mass Index.
- e) Bomb calorimeter.
- f) List down the clinical features of Marasmus.
- g) Micronutrients.

