

[Total No. of Pages : 2



**First P.B. B.Sc. Nursing Examination, Summer
(Phase - III : All Other Remaining UG/PG Courses) - 2020
BIOCHEMISTRY AND BIOPHYSICS**

Total Duration : 3 Hours

Total Marks : 75

- Instructions :**
- 1) Use **blue/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 all sections.

SECTION - A (45 Marks)

Biochemistry

1. Short answer questions (any five out of six): [5 × 5 = 25]
- a) List down the Biologically important peptides.
 - b) Define and classify lipoprotein and state their functions.
 - c) Regulation of blood glucose level.
 - d) Diagnostic importance of enzymes.
 - e) Explain Water distribution and its balance in the body.
 - f) Define BMR and factors affecting BMR.

2. Long answer question (any two out of three): [2 × 5 = 10]
- Describe steps of urea cycle.-
 - Describe synthesis of glucose from non-carbohydrate sources.
 - Enumerate different types of RNAs. Draw the clover leaf structure of tRNA.
3. Short answer question (any two out of three): [2 × 5 = 10]
- Nitrogen balance and its clinical significance.
 - Factors regulating plasma calcium level.-
 - Describe electron transport chain.

SECTION - B (30 Marks)

Biophysics

4. Short answer questions (any four out of five): [4 × 5 =20]
- Explain the types of scales of thermometer?
 - Describe the procedure of ECG (Electrocardiogram).✓
 - Discuss advantages and disadvantages of magnetic resonance imaging.
 - Explain the applications of atmospheric pressure in human body.
 - Explain the intraocular pressure measurement.
5. Long answer question (any one out of two): [1 × 10 = 10]
- Explain the mechanism of temperature regulation in human body. [7]
Why liquid mercury is used in thermometer? [3]
 - Discuss the uses of X rays in medicine.

x x x