[Total No. of Pages : 2

61303i

First P.B.B.Sc. (Nursing) Examination, Winter - 2024 Phase - II

BIOCHEMISTRY AND BIOPHYSICS

Total Duration : 3 Hours

Total Marks : 75

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 all sections.*

SECTION - A (45 Marks)

(Biochemistry)

1. Short Answer Questions (Solve any 5 out of 6) : **[5 × 5 = 25]**

a) Describe importance of plasma proteins and there functions.

b) Explain about balance diet.

c) Discuss functions of water in our body.

d) Discuss malabsorption syndrome.

e) How are the protiens digested and absorbed in the body.

f) Describe various components of bacterial cell wall.

2. Long Answer Questions (Solve any 2 out of 3) : **[2 × 5 = 10]**

a) Explain Electron Transport chain.

b) Describe the steps of Krebs cycle.

c) Enlist the essential amino acids, properties and functions.

3. **Short Answer Questions (Solve any 2 out of 3) :** **[2 × 5 = 10]**

a) Describe in detail urea cycle with its significance and energetics.

b) Define Enzyme. Explain factors affecting enzyme activity.

c) Explain role of liver in fat metabolism.

SECTION - B (30 Marks)

(Biophysics)

4. **Short Answer Questions (Solve any 4 out of 5) :** **[4 × 5 = 20]**

a) Effect of Gravitational Force on human body.

b) Infrared Radiation.

c) Audiometry.

d) Newtons law of motion.

e) Draw a neat diagram of Thermometer and explain.

5. **Long Answer Questions (Solve any 1 out of 2) :** **[1 × 10 = 10]**

a) Define Pascal's Law. Write in detail about the application of Pascal's law.

b) Explain regulation of body temperature in detail.

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