



PAA-020107

Seat No. _____

First Year Post Basic B. Sc. (Nursing) Examination

August - 2018

Biochemistry & Bio-Physics

Time : 3 Hours]

[Total Marks : 75

- Instructions :**
- (1) Answer to the point.
 - (2) Figures to the right indicate full marks.
 - (3) Draw neat and clean diagrams wherever necessary.
 - (4) Write legibly.
 - (5) Use separate answer book for each section.

SECTION – I (Biochemistry) (38 Marks)

- 1 Long essays : (any 2) 2×10=20**
 - (1) Define Enzymes and explain factors affecting enzyme activities in detail.
 - (2) What is normal blood glucose level? Explain regulation of blood glucose level.
 - (3) What is human cell? Describe structure and functions of cell membrane in detail.

- 2 Write short notes : (any 3) 3×5=15**
 - (a) Importance of study of Biochemistry in nursing
 - (b) pH and Buffers
 - (c) Urea cycle
 - (d) Anabolism and Catabolism of Fat.

- 3 Write answers following in brief : (any 3) 1×3=3**
 - (a) Enlist different tests for Renal functions.
 - (b) Write full form of "TCA" cycle and site of its occurrence.
 - (c) Structure of Amino acids.
 - (d) What are Free Radicals ?

SECTION – II (Bio-Physics) (37 Marks)

1 Long essay questions : (any 1) **2+8=10**

- (a) Define the gravitational force.
- (b) Explain effects of gravitational force on human body and its application in nursing.

OR

- (a) Define pressure.
- (b) Explain application of various pressure in human body and nursing.

2 Short essays : (any 3) **3×5=15**

- (a) Regulation of body temperature
- (b) Biological effects of light
- (c) Russel traction with diagram
- (d) Concept of unit and measurement
- (e) ECG.

3 Write very short essays : (all compulsory) **6×2=12**

- (a) Four common electronic equipments used in patients care
 - (b) Newton's law of motion
 - (c) Methods of reducing friction
 - (d) Application of measurement in nursing
 - (e) Use of ultrasound
 - (f) Radioactive isotopes.
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