



BCF-020107

Seat No. _____

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

January – 2016

Biochemistry & Biophysics

Time : 3 Hours]

[Total Marks : 75

- Instructions :**
- (1) Answers for each section must be written in **separate** main answer book.
 - (2) Figures of **right** side indicate marks.
 - (3) Answer must be brief and specific to the question asked.
 - (4) Draw illustration and diagram neatly wherever required.

SECTION - I (Biochemistry)

- 1** Answer any **one** :
- (a) Describe factors affecting the enzyme action. **7+8=15**
 - (b) Discuss how enzyme action inhibits.

OR

- (a) Describe Urea Cycle. **5+10=15**
- (b) Explain Inborn errors and relative symptoms of Urea Cycle.

- 2** Write short notes : (any **three**) **3×5=15**
- (a) Functions of water
 - (b) Significance of Biochemistry in Nursing
 - (c) Interrelationship in metabolism and cellular control during fasting and starvation
 - (d) Clinical significance of blood sugar for human.

- 3** Briefly answer following : (any **four**) **4×2=8**
- (a) Enzyme
 - (b) Homeostasis
 - (c) Gluconeogenesis
 - (d) Chromatography
 - (e) Digestion
 - (f) Lipid.

SECTION - II (Biophysics)

- 4 (a) What is heat ? Explain principles of heat transfer. How heat produces and transfers in human body ? **1×10=10**

OR

- (b) Write Electromagnetic Spectrum. Explain briefly Medical Uses Electromagnetic Radiation.
- 5 Write short notes : (any **three**) **3×5=15**
- (a) Application of Sound in patient's diagnosis.
 - (b) Osmotic pressure and utilization of osmotic pressure in patient's care.
 - (c) Artificial Cardiac Pacemaker
 - (d) Characteristics of semiconductors in terms of Nuclear Physics.
- 6 Explain the following terms : **2×6=12**
- (a) Pulley
 - (b) Friction
 - (c) Gravitational Force
 - (d) Energy
 - (e) Bioelectricity
 - (f) Transducer.
-