

POST BASIC BACHELOR OF SCIENCE (NURSING)
F. Y. P. B. B. Sc. (Nursing) : WINTER- 2022
SUBJECT : BIOCHEMISTRY & BIOPHYSICS

Day : Wednesday

Time : 10:00 AM-01:00 PM

Date : 16-11-2022

W-5658-2022

Max. Marks : 75

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labeled diagram **WHEREVER** necessary.
- 4) Answers to both the sections should be written in **SEPARATE** answer books.

SECTION – I

- Q.1** Write short answers on **ANY FIVE** of the following: [10]
- a) Which cellular organ is known as “Power house” of the cell? Why?
 - b) What is normal activity of SGOT/AST? Write the conditions in which AST activity increases.
 - c) Enlist the different laboratory tests for the diagnosis of diabetes.
 - d) What are the functions of DNA and RNA?
 - e) Name the hormones which regulates the blood glucose level.
 - f) Enlist two diagnostic enzymes for myocardial infarction.
 - g) What is competitive inhibition? Give one example.
- Q.2** Write short notes on **ANY FOUR** of the following: [16]
- a) Regulation of water and electrolyte balance.
 - b) Enlist the hormones of pituitary gland with their functions.
 - c) Describe the glycogenesis.
 - d) Describe the types and functions of Immunoglobulins.
 - e) What is gout? Give the causes of gout.
 - f) Fluid mosaic model of cell membrane.
- Q.3** Long answer questions (**ANY ONE**): [12]
- a) Define and classify lipids with suitable examples. Add a note on functions of lipids.
 - b) Define enzymes and describe the factors affecting enzyme activity.

SECTION – II

- Q.4** Write short answers on **ANY FIVE** of the following: [10]
- a) State the law of conservation of energy.
 - b) Define the unit of length, time and mass.
 - c) Describe semiconductor diode.
 - d) What is radioactivity? Define half-life period.
 - e) Explain centripetal and centrifugal force.
 - f) Describe the cardiac fibrillator.
 - g) What is an isotope, isotone and isomer?
- Q.5** Write short notes on **ANY FOUR** of the following: [16]
- a) What is lever? Describe different types of lever.
 - b) Describe sphygmomanometer.
 - c) What is hypermetropia? How it can be corrected?
 - d) Describe the digital thermometer.
 - e) Explain in detail production and properties of X-rays.
 - f) Explain vocalization and hearing of sound.
- Q.6** Long answer questions (**ANY ONE**): [11]
- a) Differentiate between heat and temperature. What is thermal conductivity? State use of heat in nursing.
 - b) What is self-induction and mutual induction? Describe the CT Scan with principle.

* * * *