

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

Day : Monday
Date : 6/6/2022

S-5658-2022

Time : 10:00 AM-01:00 PM
Max. Marks : 75

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.

SECTION – I

- Q.1** Write short answers on any **FIVE** of the following: **(5X2=10)**
- a) Which cellular organelle is called as suicidal bag? Why?
 - b) What is polysaccharide? Give any two examples.
 - c) What is cell-membrane? Give any two function of it.
 - d) Give functions of lipid (any two)
 - e) What is the normal range of blood glucose in fasting and PP condition?
 - f) What are the types of RNA? Give its function?
 - g) Name the enzymes used for diagnosis of liver disease.
- Q.2** Write short notes on any **FOUR** of the following: **(4X4=16)**
- a) Regulation of electrolyte level in the body.
 - b) Plasma proteins-types with functions.
 - c) Describe different laboratory tests for diagnosis of Diabetes Mellitus.
 - d) Hypercholesterolemia-causes, manifestation, prevention and treatment.
 - e) Enlist hormones with functions.
 - f) Blood urea and clinical significance.
- Q.3** Attempt any **ONE** of the following: **(12)**
- a) Describe the pathway of glycolysis with its energetics.
- OR**
- b) What are enzymes? Outline their classification with suitable examples. Add a note on factors affecting enzymatic activity.

SECTION – II

- Q.4** Write short answers on any **FIVE** of the following: **(5X2=10)**
- a) Explain self-induction and mutual induction.
 - b) Explain chemical effect of electric current.
 - c) Describe osmotic pressure.
 - d) State law of reflection of refraction.
 - e) What is scalar and vector quantity give its example.
 - f) Explain fundamental units and derived units with example.
 - g) Explain regulation of body temperature.
- Q.5** Write short notes on any **FOUR** of the following: **(4X4=16)**
- a) Explain ocular pressure.
 - b) What is ultrasound? Explain production of ultrasound.
 - c) What is an electric shock? What are its effects on human body?
 - d) Explain biological effects of radiation.
 - e) Describe pacemakers.
 - f) Explain effect of heat on liquid and gases.
- Q.6** Attempt any **ONE** of the following: **(1x11=11)**
- a) Explain with neat diagram a human eye and its visual defects with their correction.
- OR**
- b) Explain radiation measuring device.
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