

# Madhya Pradesh Medical Science University, Jabalpur

PBBSc. Nursing First Year Main Examination January - 2020

Paper Code:- 20AN0101101821

Time: 3 Hours

**Subject:- Biochemistry & Biophysics**

Maximum Marks: 75

- 1) *All questions are compulsory*
- 2) *Draw diagrams wherever necessary*
- 3) *Answers of Questions and Sub questions must be written strictly according to the serial order of question paper, otherwise the question shall not be valued*
- 4) *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.*
- 5) *Student can answer the question in both Hindi and English Language.*

**Q.1 Select the correct answer:** (1x5=5)

- i) **The synthesis of glucose from fat is called.**  
a) Glycolysis                      b) Krebs Cycle                      c) Saponification                      d) Gluconeogenesis
- ii) **Enzymes are:**  
a) Proteins                      b) Carbohydrates                      c) Nucleic Acid                      d) DNA Molecules
- iii) **Xerophthalmia is caused by the deficiency of:**  
a) Vitamin K                      b) Vitamin A                      c) Vitamin C                      d) Vitamin D
- iv) **Function of nucleotide includes:**  
a) Information, Storage & Transmission                      b) Storage of chemical energy  
c) cell signalling                      d) All of the above
- v) **Which of following pairs is not correctly matched?**  
(a) Vitamin B4- Pellagra                      (b) Vitamin B12- Pernicious anemia  
(c) Vitamin C Scurvy                      (d) Vitamin B6- BeriBeri

**Q.2 Write brief notes on: (Any Two)** (5x2=10)

- a. Fluid Mosaic model of cell membrane
- b. Phospholipids
- c. Classification of Enzymes

**Q.3 Short Notes on: (Any Five)** (2x5=10)

- a. Plasma Protein
- b. Function of electrolytes
- c. Galactosemia
- d. Urea cycle
- e. Essential fatty acid
- f. Ketone bodies

**Q.4 Define gluconeogenesis. Write in details the pathway and regulation of gluconeogenesis.** (15)

**Q.5 Define the following: (Any Five)**

**(2x5=10)**

- a. Atmospheric pressure
- b. Ultrasound
- c. P,Q,R,S,T Waves of electrocardiogram
- d. MRI
- e. Osmosis
- f. Law of conservation of energy

**Q.6 Write short notes on: (Any Two)**

**(5x2=10)**

- a. Use of light in therapy
- b. Pulleys and its type
- c. Pacemaker
- d. Occular Pressure

**Q.7 Describe briefly the use of various electronic equipment's in patient care?**

**(15)**