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Reg. No. 

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**II Semester B.Sc. (NEP) Degree Examination, October - 2022**

**ZOOLOGY**

**Biochemistry and Physiology**

**(2021-22 Scheme)**

**Paper: II**



**Time : 2½ Hours**

**Maximum Marks : 60**

**Instructions to Candidates:**

- i) Draw neat labelled diagrams wherever necessary
- ii) Answer should be completely in English.

**PART - A**

**I Answer the following**

**(5×1=5)**

1. What is peptide linkage?
2. Define gluconeogenesis
3. Which disease is associated with Rh factor.
4. Name the structural and functional unit of kidney.
5. Mention any one hormone secreted by posterior pituitary gland.

**PART - B**

**II Answer any Five of the following**

**(5×3=15)**

1. Define monosaccharide. Give the structure of glucose
2. Write a note on simple proteins.
3. Define allosteric enzymes? Give an example.
4. What are unsaturated fatty acid? Give an example.

**[P.T.O.]**



5. Define
  - a) Cardiac cycle
  - b) Blood pressure
  - c) Expiration
6. Write a note on Best and Taylor's theory of blood clotting.
7. Briefly explain tetanus

### PART - C

III. Answer any FOUR of the following (4×5=20)

1. List biological importance of lipids
2. Explain glycolysis
3. Give the schematic representation of urea cycle.
4. Explain chemical digestion of carbohydrates in gastrointestinal tract of man.
5. Describe the structure of multipolar neuron.
6. Name the hormones secreted by thyroid gland and mention their functions.

### PART - D

IV. Answer any TWO of the following (2×10=20)

1. Explain
    - a) The general properties of  $\alpha$  - amino acids
    - b) The theories on mechanism of enzyme action
  2. Give an account on
    - a)  $\beta$  oxidation of saturated fatty acids with odd number of amino acids.
    - b) Transamination
  3. Describe the structure of human lung.
  4. Explain the molecular and chemical basis of muscle contraction.
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