

Exam.Code:0007  
Sub. Code: 0636

2012  
B.A./B.Sc. (Hons.) Third Semester  
Zoology  
Paper - II: Molecular Biology I

Time allowed: 3 Hours

Max. Marks: 36

**NOTE:** Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit.

x-x-x

I. Explain briefly:-

- a) Steroids
- b) Central Dogma
- c) Haemoglobin
- d) Translation
- e) IgG
- f) Peptide bonds
- g) Denaturation
- h) Hyperchromaticity of DNA

(8x1)

UNIT - I

- II. a) Discuss the evolution of molecules to cells and prokaryotes to eukaryotes  
b) Explain what promoted the evolution of multi-cellular organisms from uni-cellular ancestors? (4,3)

III. Write notes on:-

- a) Biomolecules
- b) Functions of proteins

(4,3)

UNIT - II

IV. Discuss the structure and biological importance of carbohydrates. (7)

V. Write notes on:-

- a) Structure of simple lipids
- b) Glycolipids & their importance

(4,3)

P.T.O.

(2)

UNIT - III

- VI. Write notes on:-
- a) Structure of amino acids
  - b) Antigenic determinants
- VII. Discuss in detail the primary, secondary and tertiary structure of proteins with example.

(4+3)

(7)

UNIT - IV

- VIII. Describe in detail the structure of DNA molecule and its mode of replication.
- IX. Explain the types of RNA molecules in cells and discuss their functions.

(7)

(7)

x-x-x

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