

Exam. Code : 103203

Subject Code: 1325

B.A./B.Sc. 3rd Semester

ZOOLOGY (Evolution)

Paper—Zoo-III A

Time Allowed—3 Hours]

[Maximum Marks—35

Note :—The question paper comprises TWO Sections A and B. Section A is compulsory. It has SEVEN short answer type questions of 1 mark each. Section B has Units I—IV. The candidates shall attempt FOUR questions, ONE from each unit. All questions carry equal marks.

SECTION—A

- I. (i) Name the gases used in Miller's experiment to demonstrate chemical origin of life.
- (ii) Galapagos finches.
- (iii) Define "Biogenetic Law" given by Haeckel.
- (iv) What is genetic drift ?
- (v) Allopatric and Sympatric Speciation.
- (vi) Microevolution refers to _____.
- (vii) Define convergent and divergent evolution. $1 \times 7 = 7$

SECTION—B

UNIT—I

- II. Explain Darwin's Theory of Organic Evolution. 7
- III. On the basis of indirect evidence that complex organic molecules could have formed conditions for life, explain the morphological and embryological evidences supporting organic evolution. 7

UNIT—II

- IV. Define gene pool and explain the role of alleles and mutation in evolution. 7
- V. What is Speciation and give its different types. Explain Hardy Weinberg Principle ? 1+6

UNIT—III

- VI. Explain in detail the evolution of *Homo sapiens*. 7
- VII. Define fossils and explain their significance. How can one interpret fossil record ? 7

UNIT—IV

- VIII. Explain with examples Catadromous, Anadromous and Diadromous migration in fishes. 7
- IX. Define the terms—Adaptive radiation, Extinction, Evolutionary trees. What are the various adaptations which enable a bird to fly ? 3.5+3.5