Exam. Code : 103203
Subject Code : 1325

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

ZOOLOGY (Evolution)

Paper—Zoo-IIIA

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. 1×7=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