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**VA—82—2024**

**FACULTY OF SCIENCE AND TECHNOLOGY**

**B.Sc. (Second Year) (Fourth Semester) EXAMINATION**

**NOVEMBER/DECEMBER, 2024**

**(New Pattern)**

**ZOOLOGY**

**Paper-IX**

**(Evolutionary Biology and Genetic Engineering)**

**(Friday, 13-12-2024)**

**Time : 2.00 p.m. to 4.00 p.m.**

*Time—2 Hours*

*Maximum Marks—40*

*N.B. :—* (1) Attempt *all* questions.

(2) Illustrate your answer with suitable labelled diagram, wherever necessary.

1. Describe in detail Lamarck theory of evolution. 15

*Or*

(a) Explain causes and role of mass extinction in evolution. 8

(b) Illustrate adaptive radiation in Darwin's finches. 7

2. Give an account of enzymes used as a tools in recombinant DNA technology. 15

*Or*

(a) What is cloning ? Explain it with the examples of cloned animals. 8

(b) Describe gel electrophoresis. 7

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3. Write short notes on any *two* of the following :

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- (a) Biochemical evidences of evolution.
- (b) Modes of speciation
- (c) Types of RNA
- (d) P.C.R. (Polymerase Chain Reaction).

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