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GA—105—2023

FACULTY OF SCIENCE AND TECHNOLOGY

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

APRIL/MAY, 2023

(New Course)

ZOOLOGY

Paper – IX

(Evolutionary Biology and Genetic Engineering)

(Tuesday, 9-5-2023)

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

Time—2 Hours

Maximum Marks—40

N.B. :— (i) Attempt all questions.

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

1. Describe in detail theory of Lamarckism. 15

Or

(a) Explain modes of speciation with respect of allopatric and sympatric. 8

(b) What is mass extinction ? Explain role of mass extinction in evolution. 7

2. Describe structure, types and functions of DNA. 15

Or

(a) Explain southern blotting technique. 8

(b) What is transgenesis ? Explain transgenesis with any example of transgenic animals. 7

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(2)

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3. Attempt any *two* of the following :

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- (a) Homology and Analogy
- (b) Hardy Weinberg equilibrium principle
- (c) Genetic code
- (d) DNA fingerprinting.

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