

D 10277

(Pages : 2)

Name.....

Reg. No.....

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Zoology

ZOL 5B 07—ETHOLOGY, EVOLUTION AND ZOOGEOGRAPHY

Time : Three Hours

Maximum : 80 Marks

Part AI. One Word Questions. Answer *all* questions. Each question carries 1 mark :

- 1 Who put forward Mutation theory ?
- 2 Write down the scientific name of insect which exhibited industrial melanism.
- 3 The sum total of genes of a breeding population is called _____.
- 4 Who introduced the concept of random genetic drift ?
- 5 Mention the mammals which are abundant in Australian region.
- 6 Name any *one* biodiversity hotspot located in India.
- 7 Mention the zoogeographic realm in which elephants are abundant.
- 8 Name an animal exhibiting positive geotaxis.
- 9 Mention the evolutionary theory proposed by August Weisman.
- 10 Name any *one* major technique used in fossil dating.

(10 × 1 = 10 marks)

Part B

II. Short Answer Questions. Answer any ten questions. Each question carries 2 marks :

- 11 Write notes on homing instinct.
- 12 What is founder effect?
- 13 Explain Kinesis.
- 14 What are co-acervates ?
- 15 Write notes on biogenetic law.

Turn over

- 16 Distinguish between continental islands and oceanic islands.
- 17 What is hybrid inviability ?
- 18 Mention the faunal peculiarities of Ethiopian Region.
- 19 What is convergent evolution ?
- 20 What is meant by phylogenetic tree ?
- 21 Comment on the significance of genetic drift in evolution.
- 22 Discuss the role of pheromones in social behavior.

(10 × 2 = 20 marks)

Part C

III. Paragraph Questions. Answer any *five* questions. Each question carries 6 marks :

- 23 Explain Oparin-Haldane theory on the origin of life.
- 24 Explain the theory of punctuated equilibrium. Add a note on its evolutionary significance.
- 25 What are living fossils ? Explain their common features by citing suitable examples.
- 26 Describe the various morphological and anatomical evidences for evolution.
- 27 Explain the process of fossilization.
- 28 Describe the various pre-zygotic isolating mechanisms.
- 29 Explain different types of animal distributions.
- 30 Explain geological time scale.

(5 × 6 = 30 marks)

Part D

IV. Essay Questions. Answer any *two* questions. Each question carries 10 marks :

- 31 Define Speciation. Write an essay on different types of speciation.
- 32 Discuss the contribution of Charles Darwin to the field of evolution.
- 33 Write an essay on fossil ancestors of man.
- 34 Explain different types of learning behaviour.

(2 × 10 = 20 marks)