

D 70369

(Pages : 2)

Name.....

Reg. No.....

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2019

(CUCBCSS—UG)

Zoology

ZOL 5B 07—ETHOLOGY, EVOLUTION AND ZOOGEOGRAPHY

Time : Three Hours

Maximum : 80 Marks

Part A

I. One Word Questions. Answer *all* questions. Each carries 1 mark :

- 1 Which type of distribution is exhibited by flightless birds ?
- 2 Name the developmental arrest in animals resulting from extreme environmental conditions.
- 3 Who proposed the concept of biogenetic law ?
- 4 Name the major group of mammals occurring in the Australian region.
- 5 Name the type of learning that requires high degree of intelligence.
- 6 Name the taxonomic group which is intermediate between species and subspecies.
- 7 Name an evolutionary phenomenon resulting from genetic drift.
- 8 Cite any two examples for convergent evolution.
- 9 Write down the scientific name of 'Handy man'.
- 10 Mention the dominant animal groups of Mesozoic Era.

(10 × 1 = 10 marks)

Part B

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

- 11 Explain geographic barriers of animal distribution.
- 12 Comment on the faunal characteristics of oceanic islands.
- 13 Name the biogeographical zones of India.
- 14 What is Cambrian explosion ?
- 15 What is permineralization ?
- 16 Write down the evolutionary significance of vestigial structures.
- 17 What is Neo Lamarckism ?
- 18 What is industrial melanism ?

Turn over

19. What is pre-adaptation?
20. Comment on the evolutionary significance of gene mutation.
21. Explain the features of Neanderthal man.
22. Describe the theory panspermia.

(10 × 2 = 20 marks)

Part C

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

23. Explain the theory of punctuated equilibrium.
24. Describe the important fossil dating techniques.
25. Write notes on hibernation and aestivation.
26. Explain the chemical origin of life on earth.
27. Describe the origin and evolution of birds.
28. Write notes on conditioned reflex.
29. Explain the process of allopatric speciation.
30. Explain Darwin's theory of natural selection.

(5 × 6 = 30 marks)

Part D

IV. Essay Questions. Answer any *two* of the following. Each carries 10 marks :

31. Write an account on divergent evolution. Comment on its significance.
32. Give an account on isolation and isolating mechanisms.
33. Explain the various evidences of organic evolution.
34. Explain the theory of Hardy-Weinberg equilibrium. Add notes on the factors that upset this equilibrium.

(2 × 10 = 20 marks)