

C 30333

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Name.....

Reg. No.....

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2017

(CUCBCSS—UG)

Zoology

ZOL 5B 07—ETHOLOGY, EVOLUTION AND ZOOGEOGRAPHY

Time : Three Hours

Maximum : 80 Marks

A. Answer *all* questions. Each carries 1 mark :

- 1 What is conditioned reflex ?
- 2 Mention the largest zoogeographical realm.
- 3 Mention two examples for continental islands.
- 4 What is holarctic region ?
- 5 Amazon rain forest occurs in which zoogeographical realm ?
- 6 State Recapitulation theory.
- 7 What is a missing link ?
- 8 What is cladogenesis ?
- 9 What is a cline ?
- 10 What is parallel evolution ?

(10 × 1 = 10 marks)

B. Answer any *ten* questions in two or three sentences each. Each carries 2 marks :

- 11 Explain habituation.
- 12 Write on the faunal characteristics of the Ethiopian region.
- 13 Write a note on oceanic islands.
- 14 Explain topographical barriers.
- 15 Neotropical realm is regarded as the realm of birds. Why ?
- 16 Write a brief account on Neanderthal man.
- 17 Explain adaptive radiation with reference to an example.
- 18 Explain morphological species concept.
- 19 Explain synthetic theory of evolution.

Turn over

- 20 Write the basic concepts of Lamarckism.
- 21 Write briefly on geological time scale.
- 22 Citing examples, explain living fossils.

(10 × 2 = 20 marks)

C. Answer any *five* questions in not more than a paragraph each. Each carries 6 marks :

- 23 Write an account on biogeographic zones of India.
- 24 Explain different kinds of rhythms met within organisms.
- 25 Explain different patterns of animal distribution.
- 26 Elaborate on latent learning and insight learning.
- 27 Explain various morphological and anatomical evidences for evolution.
- 28 Explain Oparin-Haldane theory of biochemical evolution.
- 29 Explain genetic drift and its evolutionary importance.
- 30 Citing examples explain how natural selection operates in environment.

(5 × 6 = 30 marks)

D. Write essays on any *two* of the following. Each carries 10 marks :

- 31 Explain social organisation in termites.
- 32 Explain different types of speciation.
- 33 Elaborate on different kinds of isolating mechanisms.
- 34 Explain different methods of fossilisation and techniques of fossil dating.

(2 × 10 = 20 marks)