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Name.....76

Reg. No.....

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2015

(UG—CCSS)

Core Course—Zoology

ZO 5B 10—ETHOLOGY, EVOLUTION AND ZOOGEOGRAPHY

(2013 Admissions)

Time : Three Hours

Maximum : 30 Weightage

Answers may be written either in English or in Malayalam.

I. Answer all twelve questions. Each question carries $\frac{1}{4}$ weightage

Multiple choice questions :

- 1 The tendency of living organisms to respond to the mechanical stimulus of water current :
(a) Geotaxis. (b) Chemotaxis.
(c) Rheotaxis. (d) Anomotaxis.
- 2 Age of fishes :
(a) Cambrian period. (b) Silurian period.
(c) Orovician period. (d) Devonian period.
- 3 More rapid and abrupt mode of species formation :
(a) Allopatric speciation. (b) Sympatric speciation.
(c) Quantum speciation. (d) Parapatric speciation
- 4 The uniform geographic distribution of animals is called :
(a) Cosmopolitan distribution. (b) Discontinuous distribution
(c) Bipolar distribution. (d) Isolated distribution.

Name the following :—

- 5 The long term representation of an event stored in brain.
- 6 The systematic study of the biological basis of social behaviour.
- 7 The highest form of learning.
- 8 The golden age of mammals.

Turn over

Fill in the blanks :

- 9 Evolution leading to small changes in population is called _____.
- 10 The ability to regulate and repeat functions at about 24 hour intervals is called _____.
- 11 The various behavioural changes where by a young animal becomes attached to a mother figure is called _____.
- 12 The total life span of earth from the time of its origin is called _____.

(12 × ¼ = 3 weightage)

II. Short answer questions (Answer all *nine* questions) :—

- 13 What is meant by kinesis ?
- 14 Define hibernation.
- 15 What are coacervates ?
- 16 What is genetic drift ?
- 17 What is natural selection ?
- 18 What is punctuated equilibrium ?
- 19 What is habituation ?
- 20 What is convergent evolution ?
- 21 Define species.

(9 × 1 = 9 weightage)

III. Short answer questions (Answer any *five* questions) :—

- 22 Illustrate the embryological evidences of evolution.
- 23 Explain the major postulates of Lamarck's theory of evolution with examples.
- 24 Explain Urey-Miller experiment and its conclusions.
- 25 Explain bottleneck effect and founder effect.
- 26 Briefly explain the fossil ancestors of man.
- 27 Briefly explain the evolution of horse.
- 28 What is conditioned reflex ? Give a suitable example.

(5 × 2 = 10 weightage)

IV. Essay questions. (Answer any *two* questions) :—

- 29 Explain the different kinds of biological rhythms.
- 30 Describe the various types of isolating mechanisms.
- 31 Describe the various zoogeographical realms and their faunal characteristics.

(2 × 4 = 8 weightage)