

C 41435

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Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH 2013

(CCSS)

Zoology (Core Course)

ZO4 BO7—ENVIRONMENTAL BIOLOGY WILDLIFE
CONSERVATION, TOXICOLOGY, ETHOLOGY, EVOLUTION AND ZOOGEOGRAPHY

Time : Three Hours

Maximum : 30 Weightage

Answers may be written either in English or in Malayalam.

Give illustrations wherever necessary.

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

A. Objective Type questions :

1 Which of the following is a sedimentary cycle ?

- (a) Carbon. (b) Nitrogen.
(c) Phosphorus. (d) Water.

2 Which of the following is considered as Golden age of reptiles ?

- (a) Palaeozoic Era. (b) Mesozoic Era.
(c) Cenozoic Era. (d) Devonian Period.

3 Darwin's Finches illustrates :

- (a) Adaptive radiation. (b) Punctuated equilibrium.
(c) Commensalism. (d) Convergent evolution.

4 Shannon-Weiner index is used to measure :

- (a) Species diversity. (b) LC_{50} .
(c) LD_{50} . (d) Natality.

B. Match the following :—

- 5 Estuary (a) Hibernation.
6 Endangered species (b) Aestivation.
7 Hotspots (c) Ecotone.
8 Winter torpor. (d) Red Data Book.
(e) Oceanic Island.
(f) Endemism.

C. Fill up the blanks :

- 9 Expansion of CITES is ————.
10 The intermediate developmental stages in the succession are called ————.

Turn over

11 The phenomenon of a system exhibiting tendency for disorder is called _____.

12 _____ is a chemical messenger between members of a species.

(12 × ¼ = 3 weightage)

II. Short Answer Questions. Answer *all* nine questions :

13 State the Laws of Thermodynamics.

14 What is Community stratification ? Explain with an example.

15 Explain Gause's competitive exclusion principle with a suitable example.

16 Write briefly on Wildlife Act, 1972 and its amendments.

17 What is sustainable development ?

18 Distinguish between Divergent evolution and Convergent evolution.

19 What is a Living fossil ? Give an example.

20 What is Geneti drift ? Explain.

21 Name the major Zoogeographical regions of the world.

(9 × 1 = 9 weightage)

III. Short answer questions. Answer any *five* questions :

22 Describe the various levels of Toxicity.

23 Name and explain the factors affecting animal distribution.

24 Describe any *four* Fossil hominids.

25 Explain Hardy-Weinberg equilibrium.

26 Write an account of Positive interactions.

27 Describe in detail the reasons for Biodiversity depletion.

28 Write a detailed account of concepts of Limiting factors.

(5 × 2 = 10 weightage)

IV. Essay Questions. Answer any *two* questions :

29 Write an essay on different types of learning.

30 Give a detailed account of Neo Darwinism.

31 Enlist and explain the salient features of a Population.

(2 × 4 = 8 weightage)