

C 82908

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Name.....

Reg. No.....

**SECOND SEMESTER M.A./M.Sc./M.Com. DEGREE EXAMINATION
JUNE 2020**

(CUCSS)

Zoology

ZO 2C T06—SYSTEMATICS AND EVOLUTION

(2016 Admissions)

Time : Three Hours

Maximum : 36 Weightage

Part A

I. Answer *all* questions. Each question carries 1 weightage.

- 1 Distinguish ecospecies and coenospecies.
- 2 What is alpha taxonomy ?
- 3 Write on phenetics.
- 4 What is empiricism ?
- 5 Distinguish taxon and phenon.
- 6 Comment on subgenus.
- 7 Write on "Systema Naturae".
- 8 What are paratypes ?
- 9 What is pictorial key ?
- 10 Comment on sexy son hypothesis.
- 11 Write on Founder principle.
- 12 What is human mitochondrial clock ?
- 13 Briefly explain Y-chromosome Adam.
- 14 Comment on homoplasy.

(14 × 1 = 14 weightage)

Part B

II. Answer any *seven* of the following. Each question carries 2 weightage :

- 15 Write the features of taxonomic description.
- 16 Explain biological species concept. Mention the difficulties in the application of the biological species concept.

Turn over

- 17 Write the principles of simple dichotomous key. Give an example.
- 18 Explain ethological taxonomic characters.
- 19 Elaborate on molecular systematics.
- 20 Comment on the ethics related to taxonomic publications.
- 21 Explain the process of natural selection in islands.
- 22 Write an account on co-evolution.
- 23 Can evolution explain communication in primates.
- 24 Write a critical account on biochemical evolution.

(7 × 2 = 14 weightage)

Part C

III. Answer any *two* of the following. Each question carries 4 weightage :

- 25 Explain the operative principles and important codes of ICZN.
- 26 Elaborate on different kinds of taxonomic characters.
- 27 Elaborate on the tempo of evolution.
- 28 Explain the major forces influencing molecular evolution.

(2 × 4 = 8 weightage)