

**18P222**

(Pages: 2)

Name:.....

Reg. No:.....

**SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2019**

(Regular/Supplementary/Improvement)

(CUCSS - PG)

(Zoology)

**CC17P ZO2 C06 - SYSTEMATICS AND EVOLUTION**

(2017 Admission onwards)

Time: Three Hours

Maximum: 36 Weightage

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

1. Mitochondrial Eve.
2. Enlist any 4 major goals of taxonomy.
3. Define Morphospecies with example.
4. Molecular drive.
5. Nominalistic species concept.
6. Write any 4 major objectives of classification.
7. Geological evidence for evolution.
8. Purpose of scientific collection.
9. Sexy son hypothesis.
10. Synonym.
11. Hardy-Weinberg law.
12. Cladistics.
13. Type method.
14. Homoplasy.

**(14 x 1 = 14 Weightage)**

II. Answer any *seven* questions. Each question carries 2 weightage.

15. How to overcome the existing impediments in taxonomic research?
16. What are the advantages of molecular systematics over the traditional taxonomy?
17. Which are the major mechanisms of natural selection?
18. Which are the situations in which a taxonomic name is rejected by ICZN?
19. Briefly explain the merits and demerits of different taxonomic keys.
20. Comment on Neutral theory of molecular evolution.
21. Explain major theories of classification.
22. Write down the difficulties in the application of the biological species concept.
23. Explain intra sexual and inter sexual selection with examples.
24. How do we differentiate an Eco-species from a Ceno-species?

**(7 x 2 = 14 Weightage)**

III. Answer any *two* questions. Each question carries 4 weightage.

25. Explain the ethics to be followed while publishing a taxonomic paper.
26. Write an essay on the major stages in primate evolution.
27. Comment on taxonomic characters. How is it related to classification and evolution?
28. Briefly explain the Tempo of evolution.

**(2 x 4 = 8 Weightage)**

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