

Reg. No

Name

22P1008

M. Sc. DEGREE END SEMESTER EXAMINATION : OCTOBER 2022

SEMESTER 1 : ZOOLOGY

COURSE : 21P1ZOOT01: ANIMAL DIVERSITY: PHYLOGENETIC AND TAXONOMIC APPROACHES

(For Regular - 2022 Admission and Supplementary - 2021 Admission)

Duration : Three Hours

Max. Weights: 30

PART A

Answer any 8 questions

Weight: 1

1. Differentiate between Systematics and Taxonomy. (An, CO 3)
2. Explain Linnean hierarchy citing example (An, CO 2)
3. Compare cladistics and phenetics (An, CO 5)
4. Explain pairwise identity. (An, CO 8)
5. Comment on Wildlife protection act, 1972. (U)
6. Define geological time scale. (R, CO 2)
7. Explain 'Cellular grade of organization' (U)
8. Comment on metamerism (U, CO 6)
9. Why onychophorans are considered as connecting link? (An)
10. List out the characteristics of egg laying mammals giving suitable examples (U, CO 8)
(1 x 8 = 8)

PART B

Answer any 6 questions

Weights: 2

11. What are the various steps used in identifying different organism. (U)
12. What is optimality criteria ?. Add notes on its significance in phylogenetic analysis (Cr, CO 7)
13. Enumerate the contributions of Jim Corbet and Romulus Whitaker to the study of Indian Fauna. (E, CO 4)
14. 'Western Ghats is said to be a biodiversity hotspot'. Validate the statement. (An)
15. Elucidate the causes and consequences of cambrian explosion (E, CO 7)
16. Comment on different types of coelom. Add a note on the origin of coelom. (An)
17. Briefly explain the adaptive features of different classes under Platyhelminthes. (An)
18. Give an account of the classification of modern amphibian (U)
(2 x 6 = 12)

PART C
Answer any 2 questions

Weights: 5

19. Present the format of a revision of a taxa in the journal Zootaxa. Add notes on the undesirable practices in taxonomy (An, CO 6)
20. DNA barcoding is an accurate ecological approach to identify species and ecological research. Justify the statement (An, CO 3)
21. List out the characteristics of Arthropoda. Highlight why arthropods have achieved great diversity and abundance? (An)
22. Write down the characteristics of class mammalia. Add a note on its classification. (An)

(5 x 2 = 10)

OBE: Questions to Course Outcome Mapping

| CO | Course Outcome Description | CL | Questions | Total Wt. |
|------|---|----|-----------|-----------|
| CO 2 | Discuss the procedures in taxonomy and ethics in publications PO1, PO3, PO4 PSO3, PSO4 | A | 2, 6 | 2 |
| CO 3 | Appreciate the contributions made by scientists and organisations towards conservation of animal diversity | An | 1, 20 | 6 |
| CO 4 | Analyze the present status of Indian fauna and the role played by ZSI for conservation of Indian fauna PSO2, PSO4 | An | 13 | 2 |
| CO 5 | Examine the diversity of Palaeofauna | An | 3 | 1 |
| CO 6 | Discuss the animal architecture | An | 8, 19 | 6 |
| CO 7 | Compare the invertebrate fauna by their characteristics | An | 12, 15 | 4 |
| CO 8 | Compare the vertebrate animals by their characteristics | An | 4, 10 | 2 |

Cognitive Level (CL): Cr - CREATE; E - EVALUATE; An - ANALYZE; A - APPLY; U - UNDERSTAND; R - REMEMBER;