BA / BSc / BCOM DEGREE END SEMESTER EXAMINATION - NOVEMBER 2024 UGP (HONS.) SEMESTER - 1: DISCIPLINE SPECIFIC COURSE (ZOOLOGY) COURSE: 24UZOODSC101/24UZOODSC102: INTRODUCTION TO ZOOLOGY

(For Regular 2024 Admission)

Time: 1.5 Hours

Max. Marks: 50

PART A

Score maximum of 10 marks from 12 questions

- 1. What does it mean by the rejection of a nest by a female weaverbird?
- 2. Recollect the significance of hexagonal shape in the construction of a honeycomb.
- 3. Spider silk is incompatible with the living tissue. Agree or Disagree. Why?
- 4. Point out the reason for the nickname 'stars of the earth' for fireflies.
- 5. Bioinformatics combines your biology knowledge with ______ tools to analyse large amounts of biological data.
- 6. Define animal systematics.
- 7. What is the role of a Curator in a zoological park and what qualifications are needed?
- 8. Expand CSIR.
- 9. Where does the male Darwin frog carry its offspring?
- 10. What is the primary purpose of the bright colours of butterflies?
- 11. Name the reptile famous for changing its colour.
- 12. Name the insect known for its eye-spot patterns on its wings.

 $(1 \times 10 = 10)$

PART B

Match the following

- 13. QMP
- 14. Antibodies,WBC
- 15. Magnificient tail feathers
- 16. Weaver bird
- 17. Zygote
- 18. Incredible leaf mimicry

- a. Immunology
- b. Developmental biology
- c. Altruisim
- d. Mimicry
- e. Peacock
- f. Honeybee
- g. Termites
- h. Anisodactyly
- i. Leaf insect

 $(1 \times 6 = 6)$

PART C Assertion and Reason

Answer All. State whether assertion /reason is true or false giving explanation

- 19. Assertion (A) : Termites are known as 'silent destroyers'.
 - Reason (R) : Termites have a mutualistic relationship which help them to damage the wood
- 20. Assertion (A) : Batesian mimicry involves two or more harmful species resembling each other.
 - Reason (R) : Batesian mimicry helps in the mutual protection of the species involved.
- 21. Assertion (A) : The National Centre for Biological Sciences (NCBS) is located in Bengaluru, Karnataka.
 - Reason (R) : NCBS is a premier research institute focused on advanced research in biological sciences and is part of the Tata Institute of Fundamental Research (TIFR).

 $(3 \times 3 = 9)$

PART D

Short Answers- Quote example wherever required Answer any five questions. Each one carries 3 marks

- 22. Examine waggle dance as a vital behavior for the survival and efficiency of honeybee colonies
- 23. The glowing lure and menacing look have earned a reputation the "glowing monster" of the deep sea for angler fish. Justify the statement with your arguments
- 24. Define ethology and explain its scope within the field of biology.
- 25. Describe the main areas of research for entomology and parasitology and explain their significance in biology
- 26. What is cryptic coloration, and how does it benefit an animal?
- 27. What role does the male giant water bug play in the care of its eggs?

(3 x 5 = 15)

PART E

Answer in a page. Answer any one question

- 28. Narrate the story of pearl formation focusing on the process of picking a best Pearl.
- 29. Discuss the unique reproductive role of the male seahorse and how it challenges traditional gender roles in animal parenting.
- 30. Describe five exciting branches of research currently being explored in the field of biology.

 $(10 \times 1 = 10)$