



WEST BENGAL STATE UNIVERSITY  
B.Sc. Honours 5th Semester Examination, 2023-24

ZOOADSE01T-ZOOLOGY (DSE1/2)

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.  
All symbols are of usual significance.*

1. Answer any **eight** from the following questions:

2×8 = 16

- What is focal animal sampling?
- What is group selection?
- Distinguish between open and closed instinct.
- What is 'critical period' for imprinting?
- What is meant by circalunar rhythm? Give example.
- Name two pioneer Indian workers in the field of animal behaviour.
- Define inclusive fitness.
- Can sleep be considered as a behaviour? Why?
- Mention the significance of tail wagging dance in honeybees.
- What is chronobiology?
- Give an example of second order conditioning.
- Define habituation with example.

2. Answer any **three** from the following questions:

3×3 = 9

- What are ultradian and infradian rhythms? Give examples. 3
- What is haplodiploidy? Give an example of eusocial mammal. 2+1
- What is reciprocal altruism? Explain with example. 3
- What do you mean by handicap hypothesis? Explain with suitable example. 3
- How does unconditional response converted to conditional response in associative learning? 3

3. Answer any **three** from the following questions:

5×3 = 15

- What do you mean by FAP? Mention the characteristics of stereotyped behaviour. 2+2+1  
What is meant by 'Umwelt' in ethology?
- Explain Hamilton's rule to explain altruism in social hymenopterans. 5
- What do you mean by 'Zeitgeber'? What are meant by amplitude, phase and period in connection to biological oscillation? 2+3
- Discuss the advantages and disadvantages of group living. 3+2
- Explain the role of pineal gland in biological clock. What is SAD? What is oblique cultural transmission? 3+1+1

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