

May 2025
M.Sc.
Fourth Semester
CORE – 12
ZOOLOGY
Course Code: MZOC 4.21
(Animal Behaviour & Chronobiology)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. Give a detailed account of the primary and secondary orientation of animal behaviour. 7+7=14
2. Write a note on each of the following: 7×2=14
 - (a) Complex behaviour in animal
 - (b) Kinesis in animal behaviour

UNIT-II

3. Discuss in detail the associative learning behaviour in animal. Add a note on auditory communication in elephant. 7+7=14
4. Elaborate the concept of infrasound communication among whales. How does echolocation work in bat? 8+6=14

UNIT-III

5. Define sexual selection. Give a detailed account of intrasexual and intersexual selection in animal with suitable examples. 2+12=14
6. Write a note on each of the following: 7×2=14
 - (a) Infanticide in animal behaviour
 - (b) Types of parental care

UNIT-IV

7. Give the differences between circadian and circannual rhythms. Describe in detail the migration of fishes with examples. 4+10=14

8. Write a note on each of the following: 7×2=14
(a) Supra-chiasmatic nuclei
(b) Tidal and lunar biological rhythms

UNIT-V

9. Give a detailed account of the different methods of measurement in chronobiology and their importance. 12+2=14
10. Write a note on each of the following: 7×2=14
(a) Chronopharmacology
(b) Molecular clockwork in *Drosophila*
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