

2022
M.Sc.
Fourth Semester
CORE – 12
ZOOLOGY
Course Code: MZOC 4.21
(Animal Behaviour & Chronobiology)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

1. Write a note on the characteristics of reflexes. Describe the different types of reflexes. 7+7=14
2. (a) Explain the mechanism of sun-compass orientation. 7
(b) Explain orthokinesis and klinokinesis. 7

UNIT-II

3. Illustrate the neural mechanism of learning in detail. 14
4. Write a note on the types of communication. Explain the means of communication among whales. 7+7=14

UNIT-III

5. Give an account on the different types of sexual selection with examples? 14
6. (a) What are the kinds of parental behaviour observed before and after birth in animals? 7
(b) State the differences between monogamous and polygamous sexual conflict. 7

UNIT-IV

7. Give a detailed account on the adaptive functional significance of biological clocks. 14
8. (a) Define circadian rhythm. Explain circadian rhythm with an example. 7
- (b) Describe the role of SCN as a biological clock. 7

UNIT-V

9. Explain the molecular mechanism of circadian timekeeping of *Drosophila* flies. 14
10. (a) What are the symptoms and causes of jet lag disorder? State the preventive measures for jet lag disorders. 7
- (b) Write a note on the relationship between depression and sleep disorder. 7
