

U.G. 6th Semester Examination - 2022**ZOOLOGY****Course Code : BZOODSHC5 [DSE-5]****Course Title : Animal Behaviour and Chronobiology**

Full Marks : 30

Time : 2 Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any **ten** questions: 1×10=10
- a) What is Lek?
 - b) What is circadian pacemaker?
 - c) What are tonic reflexes?
 - d) Define male-defense polygyny.
 - e) What is meant by habituation?
 - f) What are proximate causes?
 - g) Give one example of lunar rhythm.
 - h) What is promiscuity?
 - i) What is Chronobiology?

- j) What is the advantage of Waggle dance?
 - k) Name the master clock of the body that regulates circadian rhythm.
 - l) Give two examples of non-photoc zeitgebers.
 - m) Name two fish species in which parental care is seen.
 - n) Write two disadvantages of group living.
 - o) Give an example of imprinting behaviour.
2. Answer any **five** questions from the following: 2×5=10
- a) What type of mating behaviour do nature support and why?
 - b) What are active avoidance learning and passive avoidance learning?
 - c) What is reciprocal altruism?
 - d) What is dance-language hypothesis?
 - e) Distinguish between photic and aphotic zeitgeber.
 - f) What do you think benefit more from parent offspring conflict and why?
 - g) Explain in brief the concept of synchronization and masking.
 - h) What is male rivalry? Give example.

3 Answer any **two** questions from the following:

5×2=10

- a) i) To perform an altruistic act, it was seen that the benefit recorded was 247 units and the cost incurred was 124 units. What is the value of coefficient of relatedness and what is the relationship between the donor and the recipient of the altruistic act? 2
- ii) Comment on the ways in which females and males attempt to control reproductive decisions in typical mating situations where males compete for access to choosy females. 3
- b) i) Three different groups are there. In Group A, the male provides the offspring with parental care. In Group B, both male and female provides their offspring with parental care and in Group C, only females provide their offspring with parental care. In accordance with the mating pattern, what type of mating pattern is seen in each these groups? 3

ii) How haplodiploidy lead to the evolution of eusociality? 2

c) What do you mean by parent offspring conflict? Explain with example. 5
