

**THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2023  
(Regular/Improvement/Supplementary)**

**ZOOLOGY: COMPLEMENTARY COURSE FOR BOTANY**

**GZOL3C03T: PHYSIOLOGY & ETHOLOGY**

**Time: 2 Hours**

**Maximum Marks: 60**

**SECTION A: Answer the following questions. Each carries *two* marks.**

**(Ceiling 20 Marks)**

1. Differentiate between active transport and passive transport.
2. Write an account on the chemical composition of plasma membrane.
3. What is meant by balance diet? List the major components of a staple diet.
4. List the conditions that cause left shift of oxygen-haemoglobin dissociation curve.
5. What are neurotransmitters? Give one example.
6. How do desert animals conserve water?
7. What are hyperosmotic organisms?
8. Write a note on CO poisoning.
9. What are glial cells? Mention their functions.
10. Give an example of aggressive behaviour.
11. What is habituation?
12. Give an account on echolocation in bats.

**SECTION B: Answer the following questions. Each carries *five* marks.**

**(Ceiling 30 Marks)**

13. Explain the digestion of proteins.
14. Describe the problems and physiological adaptations of diving mammals.
15. Discuss the role and functions of blood corpuscles.
16. List and explain the events in cardiac cycle.
17. Differentiate between ureotelism and uricotelism.
18. Write a note on the propagation of action potential.
19. Give an account on pheromones and chemical communication.

**SECTION C: Answer any *two* questions. Each carries *ten* marks.**

20. Describe the mechanism of muscle contraction.
21. Explain the proximate factors that influence behaviour?

**(1 x 10 = 10 Marks)**