

(6 pages)

Reg. No. : .....

Code No. : 10372 E      Sub. Code : ESZO 22/  
FSZO 22

B.Sc.(CBCS) DEGREE EXAMINATION,  
NOVEMBER 2025.

Second Semester

Zoology

Skill Enhancement Course – ANIMAL BEHAVIOUR

(For those who joined in July 2023 onwards)

Time : Three hours                      Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Genes are located on
  - (a) Mitochondria
  - (b) Ribosomes
  - (c) Endoplasmic reticulum
  - (d) Chromosomes

2. Darwinian fitness refers to
  - (a) Physical strength and health
  - (b) Social status within a group
  - (c) The ability to survive and reproduce
  - (d) Intelligence of an organism
3. The process of organizing and interpreting sensory information is called
  - (a) Sensation                      (b) Perception
  - (c) Adaptation                      (d) Reflex action
4. Which part of the brain is most associated with complex behaviour?
  - (a) Cerebellum
  - (b) Spinal cord
  - (c) Cerebral cortex
  - (d) Medulla oblongata
5. Which hormone is primarily involved in regulating seasonal behaviours in animals?
  - (a) Insulin
  - (b) Oxytocin
  - (c) Melatonin
  - (d) Dopamine

6. Which animal is known for its advanced cognitive learning abilities?

- (a) Ants (b) Frogs  
(c) Dolphins (d) Worms

7. Non-verbal communication includes:

- (a) Facial expressions  
(b) Writing only  
(c) Verbal speech  
(d) None of the above

8. The waggle dance in honey bees is used to \_\_\_\_\_ communicate

- (a) Food location  
(b) Nest-building strategies  
(c) Danger signals  
(d) Seasonal migration

9. Which term describes an organism's ability to measure day length to time seasonal events?

- (a) Phototropism  
(b) Photoperiodism  
(c) Phototaxis  
(d) Photosynthesis

10. In the absence of external cues, the endogenous circadian rhythm in humans is approximately

- (a) 20 hours (b) 25 hours  
(c) 24 hours (d) 28 hours

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).  
Each answer should not exceed 250 words.

11. (a) How does natural selection influence behaviour?

Or

(b) Discuss the significance of heritability estimates in understanding human behaviour.

12. (a) Give an example of altruistic behaviour in animals.

Or

(b) Discuss the role of neurons in controlling the behavior.

13. (a) How does behavior contribute to maintaining homeostasis?

Or

(b) Discuss the different types of learning in animals.

14. (a) Elaborate the types of animal communication.

Or

(b) How does environmental information influence animal decisions?

15. (a) How do light cues influence circadian rhythms in animals?

Or

(b) Explain the chronopharmacology.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)  
Each answer should not exceed 600 words.

16. (a) Explain how behavioral adaptations contribute to an organism's fitness.

Or

(b) Explain how natural selection can lead to the evolution of complex behavior.

17. (a) Discuss the role of sexual selection in the evolution of mating behavior.

Or

(b) Discuss the visual adaptations to unfavourable environments.

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18. (a) Explain how problem-solving and decision-making contribute to animal intelligence.

Or

(b) Discuss how environmental changes influence animal physiology and behaviour.

19. (a) How do instinct and learning interact in shaping animal behavior?

Or

(b) Explain the role of mental representation in problem solving and decision-making.

20. (a) Analyze the impact of disruptions in physiological clocks on human health, providing examples of related disorders.

Or

(b) How do circadian rhythms influence human sleep patterns?

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