KAMARAJ COLLEGE (Autonomous)

Accredited with A+ Grade by NAAC

(Affiliated to Manonmaniam Sundaranar University, Tirunelveli)

(3 Pages) **Reg. No:……**

Question Code: 26E00614 **Course Code : 25USZO22**

UG Degree - End Semester Examinations, April 2026

Second Semester

B.Sc., ZOOLOGY

Animal Behaviour

(For those who joined in June 2025 onwards)

Time : 3Hours **Maximum : 75 Marks**

PART – A (10 × 1 = 10 Marks)

Answer ALL Questions

Choose the correct answer:

CO:1 K:1 1. The primary genetic material in most living organisms is

(a) RNA (b) Protein

(c) DNA (d) Lipid

CO:1 K:1 2. Which of the following causes genetic variation?

(a) Mitosis (b) Binary fission

(c) Mutation (d) Cloning

CO:2 K:2 3. Altruistic behaviour is defined as

(a) Behaviour benefiting self only (b) Behaviour harming both actor and recipient

(c) Behaviour benefiting others at a cost to self (d) Random behaviour

CO:2 K:1 4. Which part of the nervous system primarily controls behaviour?

(a) Endocrine glands (b) Muscular system

(c) Nervous system (d) Digestive system

CO:3 K:1 5. Classical conditioning was first demonstrated by

(a) Skinner (b) Thorndike

(c) Pavlov (d) Watson

CO:3 K:2 6. Operant conditioning is based on

(a) Stimulus substitution (b) Reinforcement and punishment

(c) Reflex actions (d) Instinctive behaviour

CO:4 K:2 7. Pecking in birds during aggressive encounters is an example of

(a) Reflex (b) Displacement activity

(c) Operant conditioning (d) Social learning

CO:4 K:2 8. Waggle dance in honey bees is related to

(a) Defence (b) Mating

(c) Communication of food location (d) Thermoregulation

CO:5 K:1 9. Circadian rhythms are biological cycles with a periodicity of approximately

(a) 12 hours (b) 24 hours

(c) 7 days (d) 1 year

CO:5 K:1 10. The central clock in mammals is located in the

(a) Cerebellum (b) Hypothalamus

(c) Medulla oblongata (d) Pituitary gland

PART – B (5 X 5 = 25 Marks)

Answer ALL Questions choosing either (a) or (b).

Answer should not exceed 250 words.

CO:1 K:4 11. (a) Explain the structure and significance of genetic material

(OR)

(b) Differentiate between genes and chromosomes.

CO:2 K:3 12. (a) Explain altruism with suitable examples

(OR)

(b) Describe the role of kin selection in social behaviour

CO:3 K:3 13. (a) Explain coordination and its role in animal behaviour**.**

(OR)

(b) Explain the relationship between homeostasis and behaviour.

CO:4 K:3 14. (a) Explain the interaction between instinct and learning in animals.

(OR)

(b) Describe the biological significance of displacement behaviour.

CO:5 K:3 15. (a) Differentiate between central and peripheral biological clocks.

(OR)

(b) Define: Photoreception and Photo-transduction.

PART – C (5 X 8 = 40 Marks)

Answer ALL Questions choosing either (a) or (b).

Answer should not exceed 500 words.

CO:1 K:4 16. (a) Discuss the chemical nature, structure, and functions of genetic material in living organisms.

(OR)

(b) Explain the organization of genes and chromosomes and analyze their role in inheritance and variation.

CO:2 K:4 17. (a) Discuss the mechanisms of sexual selection and analyze their role in the evolution of mating behaviour.

(OR)

(b) Explain animal perception and analyze how sensory systems influence behaviour.

CO:3 K:4 18. (a) Discuss coordination and orientation in animals and analyze their adaptive significance.

(OR)

(b) Compare classical conditioning and operant conditioning with suitable examples.

CO:4 K:5 19. (a) Analyze displacement activities and evaluate their significance in understanding animal conflicts and stress.

(OR)

(b) Critically evaluate intelligence, tool use and culture in animals with suitable examples.

CO:5 K:5 20. (a) Evaluate the relevance of circadian rhythms for human welfare.

(OR)

(b) Explain the physiological clock and critically examine how animals measure day length.