

PART A - (10 x 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. What is called an individual's gene collection?
(a) Genotype (b) Phenotype
(c) Trait (d) None of the above
2. Select the term used by Darwin for describing discontinuous variation
(a) Variation (b) Heredity
(c) Sports (d) Fitness

7. Which is the inherent response?
(a) Learning (b) Instinct
(c) Conditioning (d) All the above
8. Which is not a type of animal communication signal?
(a) Visual (b) Chemical
(c) Auditory (d) None
9. A process in which an animal learns to associate a previously neutral stimulus with a behavior that was once triggered by a different stimulus is called _____
(a) Parental conditioning
(b) Classical conditioning
(c) Habituation
(d) Imprinting
10. Select the process of converting light energy to electrical energy
(a) Photoreception (b) Photosynthesis
(c) Phototransduction (d) All the above

3. Choose the term describing competition between members of the same species
(a) Interspecific struggle
(b) Intraspecific struggle
(c) Environmental struggle
(d) All the above
4. Which of the following limbic system act as the center for identification of danger?
(a) Hippocampus (b) Fornix
(c) Septum (d) Amygdala
5. Most of the learning that takes place in the class room is _____
(a) Classical conditioning
(b) Operant conditioning
(c) Cognitive learning
(d) Social learning
6. Who proposed cognitive theory of learning?
(a) Skinner (b) Tolman
(c) Pavlov (d) Piaget

PART B - (5 x 5 = 25 marks)

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

11. (a) Enumerate the natural selection.
Or
(b) Explain frequency distribution of phenotypes.
12. (a) Describe sexual selection.
Or
(b) Explain neural control of behavior.
13. (a) Explain the biological aspects of learning.
Or
(b) Discuss homeostasis and behavior.
14. (a) Describe animal emotions.
Or
(b) Explain complex behavior of honey bees.
15. (a) Elaborate the concept of peripheral clock system.
Or
(b) Explain biological clock.

PART C — (5 × 8 = 40 marks)

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

16. (a) Discuss the polygenic inheritance of behavior.

Or

- (b) Discuss heritability of behavior.

17. (a) Elaborate sensory processes and perception.

Or

- (b) Discuss the altruism.

18. (a) Explain conditioning and learning.

Or

- (b) Distinguish coordination and orientation.

19. (a) Explain communication in animals.

Or

- (b) Discuss decision making behavior in animals.

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20. (a) Discuss the chronopharmacology

Or

- (b) Distinguish photoreception and photo-transduction.

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