

1158

4

5. (a) Explain the importance of Tinbergen's four questions in the modern study of animal behavior.

(6)

(b) What do you understand by social behavior and explain its advantage and disadvantages.

(6)

6. (a) Explain the role of hormones in honeybee society.

(6)

(b) Give the characteristics of a reflex action. Discuss their corresponding complex behavior patterns.

(6)

7. Write short notes on any **three** of the following :

(a) Classical conditioning

(b) Selfish gene

(c) Territorial behaviour

(d) Polyethism

(e) Parasitic brood care

(3x4=12)

(1000)

[This question paper contains 4 printed pages]

Your Roll No.

Sr. No. of Question Paper : 1158

06 DEC 2017

Unique Paper Code : 32237901

Name of the Paper : DSE- Animal Behaviour and Chronobiology

Name of the Course : B.Sc. (H) Zoology

Semester : V LOCF

Duration : 3 Hours

Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **Five** questions in all including Question No. 1 which is compulsory.

1. (a) Define the following :

(i) Phase

(ii) Reinforcement

(iii) Supernormal stimulus

(iv) Code breakers

P.T.O.

(v) Innate behaviour

(vi) Ethogram (1×6=6)

(b) Differentiate between the following :

(i) Tropotaxis and klinotaxis

(ii) Habituation and sensitization

(iii) Alpha male and subordinate male

(iv) Ultradian and infradian rhythm

(v) Classical and Operant conditioning

(vi) Allomones and kairomones (2×6=12)

(c) Give Contributions of following :

(i) Wallace Craig

(ii) Ivan Pavlov

(iii) Niko Tinbergen

(iv) Karl von Frisch (1×4=4)

(d) State true or false :

(i) Imprinting takes place during a narrow window of time shortly after birth.

(ii) Genetic makeup and physical characteristics of animals are adaptations over time to the environment they are raised in.

(iii) Animals that have parental care produce more offspring than animals without parental care.

(iv) An example of kin selection is that peacocks have long, showy tails even though it makes them more obvious to predators and more difficult to fly.

(v) Round dance performed by honeybees has no directional component. (1×5=5)

2. (a) Give an account of photic and non photic zeitgebers. (6)

(b) Explain the adaptive significance of biological clock. (6)

6. (a) Explain proximate and ultimate causes of behavior with help of suitable examples. (6)

(b) Explain intersexual selection. Why is it advantageous for species? (6)

4. (a) Describe various methods of studying and recording animal behaviour. (6)

(b) Explain sexual dimorphism and its role in mate choice. (6)