

2017

ZOOLOGY

(Major)

Paper : 6.1

(**Animal Behaviour**)

Full Marks : 60

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. (a) Fill in the blanks : 1×4=4
- (i) Forager honeybee performs _____ type of dance to indicate the source of food near to the hive.
 - (ii) _____ part of the brain monitors and sorts sensory signals to response stimulus.
 - (iii) The common chemical constituent of pheromones in the urine of male tiger is _____.
 - (iv) Reflex shown by animals against stimuli gained by experiences is called _____.

(b) Choose the correct answer : $1 \times 3 = 3$

(i) Endogenous rhythm of 24 hours is called

- (1) circadian
- (2) circalunar
- (3) circannual
- (4) circatidal

(ii) The term 'altruism' is related with

- (1) repelling behaviour
- (2) escaping behaviour
- (3) helping behaviour
- (4) aggressive behaviour

(iii) The highest ranking dominant member of a social group is termed as

- (1) Lord animal
- (2) Omega animal
- (3) Nuclear animal
- (4) Alpha animal

2. Answer/Write short notes on the following :

$2 \times 4 = 8$

(a) Advantages of division of labour in social organization of honeybees

(b) Describe briefly the importance of territoriality.

(3)

(c) What do you mean by diadromous homing behaviour in fishes?

(d) Regulation of aggressive behaviour by pheromones in honeybees

3. Answer any *three* from the following questions : 5×3=15

(a) Write the role of hypothalamus as a master regulator of behaviour.

(b) How are dominance hierarchy and territoriality maintained by the social organizations of monkeys?

(c) What is biorhythm? How does circadian rhythm influence animal behaviour?

(d) What is stereotyped behaviour? Define taxis. Briefly explain phototaxis, geotaxis and chemotaxis exhibited by animals.

4. With suitable examples, describe the role of genes in shaping the behaviour of animals. 10

Or

Discuss the effects of hormones of Gonads, Adrenal and Pituitary on behaviour. 3+3+4=10

5. Describe the characteristics and advantages of social organizations. Give an account of social organization of termites. $2+2+6=10$

Or

What are the major components of communication? Describe various types of communication shown by the animals. $2+8=10$

6. What is learning? Describe different types of learning behaviour found in animals. $2+8=10$

Or

Discuss briefly the role of motivation, memory and imprinting in triggering animal behaviour. $4+4+2=10$
