Lib - 4/12/18 M

Sl. No. of Ques. Paper	: **641**	**IC**
Unique Paper Code	: **32237901**	
Name of Paper	: **Animal Behaviour and Chronobiology**	
Name of Course	: **B.Sc. (H) Zoology : DSE – 1**	
Semester	: **V**	
Duration	: **3 hours**	
Maximum Marks	: **75**	

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt five questions in all including Question No. 1, which is compulsory.

1. (a) Define the following :

    (i) Actogram

    (ii) Reinforcement

    (iii) Jet lag

    (iv) Code breakers

    (v) Latent learning.   1×5=5

    (b) Differentiate between the following :

    (i) Innate and Learned behaviour

    (ii) Intersexual and Intrasexual selection

    (iii) Circatidal and Circalunar rhythms

    (iv) Eusocial species and Subsocial species

P.T.O.

(v) Master clock and Slave clock

(vi) Polymorphism and Polytheism. 2×6=12

(c) Give contributions of the following :

(i) Wallace Craig

(ii) Konrad Lorenz

(iii) Hamilton

(iv) Niko Tinbergen. 1×4=4

(d) Fill in the blanks :

(i) Pavlov's dog salivation experiment is an example of .... conditioning.

(ii) Rheotaxis is movement of the animal with respect to ....

(iii) .... is a semiochemical, which mediates interspecific interactions in a way that benefits the emitting organism but harms the receiver.

(iv) .... is known as father of chronobiology.

(e) Illustrate direction component of waggle dance in honeybees with the help of diagrams. (No description required.) 2

2. (a) Give a detailed contribution of Karl von Frisch to animal ethology. 6

(b) Explain exogenous and endogenous rhythms with the help of suitable examples. 6

3. (a) Discuss various methods of studying and recording animal behaviour. 6

(b) Communication remains boon to form successful society. Explain. 6

4. (a) Explain with examples the role of parental care in mate choice. Add a note on the advantages and disadvantages of parental care. 6

(b) Explain how Fixed Action Patterns is different from Reflexes with the help of suitable example. 6

5. (a) Discuss reciprocal altruism with suitable examples. Add a note on its advantage in species survival. 6

(b) Explain positive and negative reinforcement with suitable examples. 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

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

(a) Chronotherapy

(b) Selfish gene

(c) Imprinting

(d) Infanticide

(e) Supernormal stimulus. 3×4=12