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5 SEM TDC DSE ZOO (CBCS) 1 (H)

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(Held in January/February, 2022)

ZOOLOGY

(Discipline Specific Elective)

(For Honours)

Paper : DSE-1

(Animal Behaviour and Chronobiology)

Full Marks : 53

Pass Marks : 21

Time : 3 hours

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

1. Fill in the blanks : 1×5=5

(a) _____ behaviour is rigid, genetically inbuilt and not influenced by environment.

(b) The interaction in which an individual sacrifices some of its own reproductive potentials to benefit another individual is called _____.

- (c) Male bluster beetles drumming female's abdomen is a type of _____ communication.
- (d) _____ type of learning happens in a narrow window of time shortly after birth.
- (e) A _____ is any external/environmental cue that synchronizes an organism's biological rhythm.

2. Write short notes on any *three* of the following : 4×3=12

- (a) Historical development of chronobiology
- (b) Waggle dance
- (c) Habituation
- (d) Chronotherapy

3. Write a comparative account on stereotyped and learned behaviour in animals. 9

Or

What do you mean by classical conditioning? Explain it with a suitable example. How does classical conditioning differ from operant conditioning? 2+5+2=9

4. What are eusocial animals? State the advantages of animals living in society. Write some negative consequences of group living.

1+4+4=9

Or

What do you mean by sexual selection? Write an elaborative note on sexual conflict in parental care.

4+5=9

5. Circadian and circannual rhythms are found in almost all organisms. Explain why they are important to the survival of the organism. 9

Or

What do you mean by biological rhythm? Explain the role of environmental cues in biological rhythms.

4+5=9

6. Write explanatory notes on any *two* of the following :

4½×2=9

(a) Chronomedicine

(b) Contributions of Konrad Lorenz and Niko Tinbergen in the field of animal behaviour

(c) Altruism

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