

B.Sc. 6th Semester (Honours) Examination, 2023 (CBCS)

Subject : Zoology

Course : DSE-3

(Animal Behaviour)

Time: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

Group-A

1. Answer *any five* questions of the following: $2 \times 5 = 10$
- (a) What do you mean by 'intrasexual' and 'intersexual' selection?
 - (b) Distinguish between habituation and sensitization with suitable example.
 - (c) Define 'inclusive fitness' with an example.
 - (d) What do you mean by 'Kin Selection'?
 - (e) How does learning differ from instinct?
 - (f) Define 'Sign Stimulus' with an example.
 - (g) What do you mean by 'photic' and 'non-photic' zeitgeber?
 - (h) What do you mean by 'sexual conflict' in parental care?

Group-B

2. Answer *any two* questions of the following: $5 \times 2 = 10$
- (a) Explain the phenomenon of 'Fixed Action Pattern' (FAPs) behaviour with an example.
 - (b) Explain Filial and Sexual imprinting with example.
 - (c) Comment on endocrine control of bird migration. Discuss the adaptive significance of bird migration. $3+2$
 - (d) Explain the phenomenon of 'eusocial behaviour' in honeybee.

Group-C

3. Answer *any two* questions of the following:

$10 \times 2 = 20$

- (a) Define stereotype behaviour. Write down the differences between taxis and kinesis.
Explain different types of kinesis with example. 2+3+5
- (b) Define altruism. Explain the altruistic behaviour in honeybee. Add a note on reciprocal altruism. 2+5+3
- (c) Discuss with suitable diagram the role of Supra Chiasmatic Nucleus in circadian rhythm. Give one example of circadian rhythm in human and an invertebrate animal. Write short note on imprinting. 3+2+5
- (d) Elaborate the concept of associative learning. Comment on the cost and benefit of group living. 6+4
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B.Sc. 6th Semester (Honours) Examination, 2023 (CBCS)**Subject : Zoology****Course : DSE-3 (OR)****(Wildlife Conservation)****Full Marks: 40****Time: 2 Hours***The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words
as far as practicable.***Group-A**

2×5=10

1. Answer any five questions of the following:

- (a) What do you mean by 'pug marks'? Write its significance.
- (b) What is 'compensation level' in aquatic system?
- (c) Define community reserve. Give an example.
- (d) What is absolute density?
- (e) Write the full form of CITES and IBWL.
- (f) Define setting back succession.
- (g) What do you mean by 'ecotourism'?
- (h) What do you mean by 'endemic species'? Give example.

Group-B

2×5=10

2. Answer any two questions of the following:

- (a) What is grazing system? Describe continuous grazing system. 1+4
- (b) What is carrying capacity? State the method of estimation of carrying capacity. 2+3
- (c) Write a short note on 'Indian Wildlife Protection Act, 1972'.
- (d) Write a short note on 'Project Tiger'.

Group-C

3. Answer *any two* questions of the following:

$10 \times 2 = 20$

- (a) Define Wildlife conservation. Explain different methods *in situ* wildlife conservation.
2+8
- (b) What do you mean by 'human-animal conflict'? Explain cause and consequences of human-animal conflict. Describe the process of mitigation of such conflict.
2+5+3
- (c) How effective population size is measured where sex ratio is not equal? Write down the negative impacts of ecotourism in protected areas.
4+6
- (d) Define Biodiversity. How genetic diversity can be preserved? Explain the methods of restoration of degraded habitats.
2+4+4