

Zoology MSc. 3rd Semester 2021
Paper ZCT 316
Animal Behaviour and Wildlife Biology

Full marks 40

Time 2 hours

Answer any four questions taking two from each group

All questions carry equal marks

Group A

(Animal Behaviour)

- Q1. a. 'Great tits reared in blue tit nests survive well but fail to mate with their own species' – explain the observation in context of regulation of behavior development.
- b. 'Ventromedial nucleus of a cat is stimulated electrically' –will there be any behavioral change? Explain with reason.
- c. 'Male peacocks with longer tail will be preferred by females' – justify the statement. **(4+3+3=10)**
- Q2. a. How can song sparrow males control the level of conflict with their neighbours by their selection of song? Comment on the adaptive value of repertoire matching for song birds.
- b. Can a hawk population be an evolutionary stable strategy? Justify your answer with suitable payoff matrix. **(3+3+4=10)**
- Q3. a. Explain on what factors does the intensity of sexual selection depend on?
- b. Outline two non-genetic benefits that might be on offer to attract females during mate selection. **(4+6=10)**
- Q4. What is reciprocal altruism? Cite an example. What is the difference between Reciprocal mutualism and Biproduct mutualism? 'Tit for Tat' strategy is termed as 'Nice' and 'Forgiving' but 'swift to retaliate'. Explain why? **(3+3+4 = 10)**

Group A

(Wildlife Biology)

- Q5. Why Great Indian Bustard is called a Keystone species of Indian grassland? Comment on its present distribution status. Why their population is declining? Elaborate Project Bustard. **(2+3+2+3=10)**
- Q6. Comment on the present conservation status of Red-panda. Identify the threats to the survival of this species. Give an account on the conservation management of captive Red-panda. **(2+3+5 = 10)**
- Q7. What do you mean by conservation breeding? How does it differ from Ex-situ modes of conservation? Mention the advantages and limitation of this process. **(2+2+2+2 =10)**
- Q8. What do you mean by threaten fauna? Distinguish between endangered and vulnerable species with examples. Enumerate the underline causes of depletion of Indian Wildlife. **(2+3+5=10)**