

M.Sc. Examination, 2019
Semester-II
Zoology
Paper – MZCT-204
(Animal Behaviour and Evolution)

Time: 3 Hours

Full Marks: 40

Questions are of value as indicated in the margin.

Answer **any four** questions.

1. What do you mean by animal communication? Describe different types of animal communications with examples. 2+8=10
 2. How do you define biological rhythms? Describe different types of endogenous biological rhythms. What are Zeitgebers? 2+6+2=10
 3. Why animals often produce costly and extravagant displays or physical ornaments? Discuss Zahabi's 'handicap principle'. What are different types of handicaps? 2+6+2=10
 4. What is genetic polymorphism? Distinguish between transient and balanced polymorphism giving examples. Comment on heterosis and polymorphism. 2+6+2=10
 5. Define random genetic drift. Give an example. How do you calculate the effect of random genetic drift on gene frequency? Add a note on the effect of gene migration on evolution with example. 1+1+4+4=10
 6. Write short notes on **any four**: 2.5×4=10
 - (a) Origin of biological molecules
 - (b) Role of inbreeding in evolution
 - (c) Stabilizing selection
 - (d) Lactase persistence
 - (e) Gene duplication
 - (f) Sympatric speciation
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