

UNIVERSITY OF BOLTON

SCHOOL OF SPORT AND BIOLOGICAL SCIENCES

BSc (HONS) BIOLOGY

SEMESTER TWO EXAMINATION 2018/2019

ANIMAL BEHAVIOUR

MODULE NO: BIO6003

Date: Friday 24 May 2019

Time: 10.00 am – 1.00 pm

INSTRUCTIONS TO CANDIDATES:

Candidates are advised that the examiners attach importance to legibility of writing and clarity of expression. **YOU ARE STRONGLY ADVISED TO PLAN YOUR ANSWERS.**

There are **TWO** sections and **SIX** questions on this paper.

Answer **TWO** questions from Section A and **ONE** question from Section B.

All questions carry 50 marks.

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SECTION A – Answer any TWO questions in this section.

1. The Ideal Free Distribution (IFD) and the Marginal Value Theorem (MVT) are models developed to explain how animals distribute themselves among food patches. Compare and contrast these two models using named examples to illustrate your answer.
[50 marks]
2. Critically appraise to what extent the tool making capabilities of nonhuman animals provide evidence of their cognitive abilities.
[50 marks]
3. Assess the various ways in which group living can result in a reduction in predation risk.
[50 marks]
4. Justify the following statement using examples from the scientific literature: Mullerian mimicry promotes uniformity of colour pattern whereas Batesian mimicry promotes polymorphism.
[50 marks]

SECTION B – Answer ONE question from this section.

5. The widespread use of chemical insecticides has caused serious ecological problems. Suggest an alternative solution using published case studies to justify your answer.
[50 marks]
6. You are the manager of a public zoo. Several of your carnivore species are displaying locomotor stereotypies. Explain the alternative hypotheses for these behaviours and suggest solutions to reduce their occurrence.
[50 marks]

END OF QUESTIONS