Name: _____ Student #: _____

BIO3176 – Animal Behaviour
Professor Adam Oliver Brown
PRACTICE Midterm 1
October 13, 2015

INSTRUCTIONS:

- This is a closed book exam, no notes or electronic devices are permitted... otherwise their discovery will constitute an accusation of academic fraud
- write your name and student # at the top of EACH page
- check that your exam is complete, there are 5 pages in all
- think carefully and answer the questions thoughtfully, drawing upon the information and using the terminology that you have learned in this course
- use complete sentences, not diagrams or equations and avoid the use of examples unless asked in the question
- this exam will last for 80 min.
- Good Luck!

Short Answer	/25
Long Answer	/10
Total	/35

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Part I - Short Answer: (5 points each) –
briefly and concisely discuss the following concepts as they relate to this course.

1) Discuss the relative contributions of genetic vs. environmental causes of animal behaviours.

2) Compare and contrast the proximate and ultimate functions of free-running vs. entrained components of animal behaviour schedules.

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3) Provide an ultimate explanation for infanticide and discuss the ecological contexts under which the behaviour should be observed in an animal population.

4) During mate choice evaluation, describe how the Good Genes Hypothesis may explain why female animals may prefer males that have learned to perform complex behaviours, such as having a diverse song repertoire in birds.

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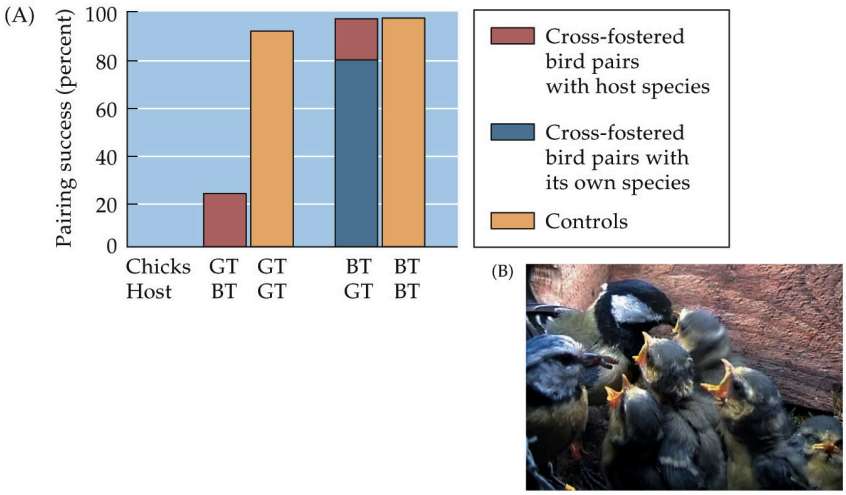
5) Explain how 'code breaking' can evolve through the manipulation of fixed action patterns in animals and why it has maintained over evolutionary time despite its maladaptive effects on the target animals.

Part II – Long Answer (10 Pts) : On the next page, discuss in full the following concept as it relates to this course.

Describe the data in the following figure on a cross-fostering experiment using Great Tit and Blue Tit birds and discuss what it tells us about the degree of genetic control over an animal's ability to learn throughout development.



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