



**RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES**

**B.Sc. (General) Degree in Applied Sciences
Second Year Semester II Examination – April/May 2015**

BIO 2213– ANIMAL BEHAVIOUR

Time: Two (2) hours

Answer four (04) questions only.

1. Using appropriate examples, briefly discuss three factors that influence behavioural development in organisms.
2. Wynne-Edwards (1986) in his work titled "*Evolution Through Group Selection*" suggested that if a population over-exploited its food resources it would go extinct, and so adaptations have evolved to ensure that members of each group or species regulate their birth rate to prevent over-exploitation of resources. Does the breeding behaviour of the great tit (*Parus major*) support this view? Discuss your answer.
3. Briefly describe the broad categories of animal play behaviour and their functions.
4. Write short notes on the following.
 - a) Independent contrasts
 - b) Bateman's principle
 - c) Batesian mimicry
 - d) Ideal free distribution
 - e) Kin recognition and matching models
5. Discuss estrus synchrony and infanticide in lions providing both causal and adaptive explanations.