

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

**FACULTY OF APPLIED SCIENCES
DEPARTMENT OF FOREST RESOURCES AND WILDLIFE MANAGEMENT
BACHELOR OF SCIENCE HONOURS DEGREE
MAIN EXAMINATION**

MAMMALOLOGY: EFW 2102

January 2013

Time Allowed: 3 Hours

Total Marks: 100

INSTRUCTIONS TO CANDIDATES:

Answer **QUESTION ONE** and any **THREE** others. Each question carries **25 marks**.

1. (a) Compare and contrast the reproductive systems of marsupials and placental mammals. **[15 marks]**
(b) Describe the reproduction of the duck-billed platypus (*Ornithorhynchus anatinus*). **[10 marks]**
2. (a) Describe **three** morphological and anatomical differences between African savanna elephants (*Loxodonta africana africana*) and African forest elephants (*Loxodonta africana cyclotis*). **[10 marks]**
(b) Discuss the merits and demerits of classifying African savanna elephants (*Loxodonta africana africana*) and African forest elephants (*Loxodonta africana cyclotis*) as separate species. **[15 marks]**
3. Explain how the following mammals communicate: black rhinoceros (*Diceros bicornis*), spotted hyaenas (*Crocuta crocuta*), lions (*Panthera leo*), African wild dog (*Lycaon pictus*) and blue duiker (*Philantomba monticola*).
4. Describe the following: self-anointing in hedgehogs, musth in the African elephant, life-long sterility in the naked mole rat, cuckoldry in the aardwolf and infanticide in the African lion.
5. (a) Compare and contrast the major characteristics of megabats and microbats. **[10 marks]**
(b) Describe the behavioural ecology of a named species of the Family Molossidae (insect-eating bats). **[15 marks]**
6. (a) Explain the ecological importance of territoriality in a named species. **[10 marks]**
(b) What are the management implications of territoriality in mammals? **[15 marks]**

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