



(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017 ACADEMIC YEAR

THIRD YEAR SECOND SEMESTER SUPPLEMENTARY EXAMINATION

FOR THE DEGREE OF BACHELOR OF SCIENCE AGRICULTURE

COURSE CODE: SZL 325

COURSE TITLE: ORNITHOLOGY AND MAMMALOGY

DATE: 27/09/2017

TIME: 8:00-10:00 A.M

INSTRUCTIONS TO CANDIDATES

Answer Question one (1) and any other two (2) Questions. Question one is compulsory and carries 30 marks, the other Questions carry 20 marks each.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over



KIBU observes ZERO tolerance to examination cheating

1.
 - a. List three features of the early Triassic mammals that trace evolutionary roots of the modern mammals to the therapsid reptiles (3mks)
 - b. Name three skin glands of mammals state the function of each (3mks)
 - c. Draw a "typical" primary feather, and label the major macroscopic parts (4mks)
 - d. In which two orders of mammals would you find the following types of uteri? (3mks)
 - i. Duplex
 - ii. Bicornuate
 - iii. Simplex
 - e. What features distinguish the following groups? (5mks)
 - i. Odontoceti and mysticeti
 - ii. Order lagomorpha and rodentia
 - iii. Infraclass metatheria and eutheria
 - iv. Subclass prototheria and theria
 - v. Suborder magachiroptera and Microchiroptera
 - f. Explain why mammalian dentition is important to a palaeontologist (3mks)
 - g. Outline any three economic importance of birds (3mks)
 - h. Explain the general relationship between body size, litter size, gestation period and frequency of oestrous cycle in a typical mammal (3mks)
 - i. Use suitable diagrams to define the following styles of movement in mammals
 - i. Plantigrade (1mk)
 - ii. Digitigrade (1mk)
 - iii. Unguligrade (1mk)
2.
 - a. Discuss any five significant differences between Archaeopteryx and modern birds. (10mks)
 - b. Explain why the annual migration of mammals; wildebeests (*Cannochales taunnus*), zebras and antelopes is important from a conservationist point of view. (10mks)
3.
 - a. Give and explain six important adaptations for flight in modern birds. (10mks)
 - b. Explain the social grouping of large mammals and elaborate it's the pros and cons (10 mks)
4.
 - a. List and describe any five different mating systems in birds (10mks).
 - b. Discuss the current geographical spread of the modern orders of mammals (10mks)
5. Discuss any ten of the main features that diagnose the mammalian fauna from all other forms of life (20mks)