

THE FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI
SCHOOL OF AGRICULTURE AND AGRICULTURAL TECHNOLOGY
DEPARTMENT OF FORESTRY AND WILDLIFE TECHNOLOGY

COURSE TITLE: WILDLIFE NUTRITION

COURSE CODE: FWT 312. UNIT: 2. SESSION: 2018/2019 SEMESTER: RAIN. DATE: 24/10/2019

TIME ALLOWED: 2 HRS 30 MINS

INSTRUCTIONS: Answer four questions in all. Question one (1) is compulsory

1. The following data were obtained from a 14-day feeding experiment conducted for a five-year old giant eland (*Taurotragus derbianus*) at the Wildlife Domestication Unit of the Department of Forestry and Wildlife Technology, Federal University of Technology, Owerri.
 - (a) Analysis of feed:
 - (i) Total weight of feed consumed per day = 0.50kg. (ii) Moisture content = 50.5%
 - (iii) Protein content = 10.50%. (iv) Ether extract = 3.00%. (v) Nitrogen free extract = 17.40%
 - (vi) Crude fibre = 18.60%
 - (b) Analysis of fresh faeces:
 - (i) Total weight of faeces at the end of experiment = 4.883kg. (ii) Moisture content = 65.50%.
 - (iii) Protein content = 5.50% (iv) Ether extract = 2.00%. (v) Nitrogen free extract = 9.1%. (vi) Crude fibre = 16.9%. Calculate the apparent digestibility of each nutrient and the total digestible nutrients (TDN) of the feed. (17.5 marks)
2. What is wildlife nutrition? Discuss in details the role of nutrition in wild animal survival. (17.5 marks)
3. (a) Write notes on (i) Dietary energy (ii) Gross energy (3 marks)
 - (b) List five (5) wild carnivores and their common prey (5 marks)
 - (c) With the aid of chemical structures, differentiate between the chemical components of lipids and glucose. Which of these has higher energy value and why? (9.5 marks)
4. Outline the general guidelines for the feeding of animals in captivity. (17.5 marks)
5. (a). Given the following ingredients:
 - PKC having 16% protein content
 - GNC having 47% protein contentFormulate a feed that contains 32% crude protein using the square method. (10 marks)
 - (c) How much of each ingredient listed above will be required to prepare 100kg of the feed in (a) above? (7.5 marks)