

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCE AND BACHELOR OF SCIENCE IN NATURAL RESOURCE DEVELOPMENT

NARE 421: RANGE PLANT ECOPHYSIOLOGY

STREAMS: BSC. ENSC & NARE Y4S1

TIME: 2 HOURS

DAY/DATE: TUESDAY 11/12/2018

8.30 A.M. – 10.30 A.M.

SECTION A (30 MARKS) ANSWER ALL QUESTIONS

1. Briefly describe the impacts of fire on range plant performance. (5 marks)
2. Highlight the underlying principles of range management. (5 marks)
3. Briefly discuss the nitrogen use efficiency in range plants. (5 marks)
4. Describe four types of grazing systems. (4 marks)
5. Differentiate between light, moderate and heavy grazing. (6 marks)
6. Explain the effects of invasive plants on rangeland productivity. (5 marks)

SECTION B (40 MARKS) ANSWER ONLY TWO QUESTIONS

7. Discuss the comparative analysis of the photosynthesis pathways in range plants. (20 marks)
8. (a) Describe the physical factors that cause plant stress. (10 marks)
- (b) Discuss the factors that increase grazing resistance in grasses and shrubs in rangelands. (10 marks)
9. Discuss grazing habits and preferences for various rangelands animals. (20 marks)

