



**COLLEGE OF HEALTH, AGRICULTURE & NATURAL RESOURCES**

**NACP 206: ECOLOGY**

**END OF FIRST SEMESTER EXAMINATIONS**

**November / December 2019**

**LECTURER: Mr Mtaita**

**DURATION: 3HRS**

***INSTRUCTIONS***

1. Write your Registration Number [**NOT YOUR NAME**] on the answer sheet

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2. Use Answer Sheets Provided To Answer **Five** Questions Only

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3. Begin your answer for Each Question on a New Page

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4. Credit is Given for Neat Presentation

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### **Question One**

- a) With the aid of practical examples, differentiate between the following;
  - i. A niche and a habitat [2]
  - ii. Population and Community [2]
  - iii. Food Chain and Food web [2]
  - iv. Ecotone and edge effect [2]
  - v. Biotic and biotic factors [2]
- b) Discuss Four interactions that occur in ecosystems [10]

### **Question Two**

- a) Clearly discuss the concept of ecological succession. Make sure to include the significance of ecological succession. [10]
- b) Discuss the determinants of Savanna [10]

### **Question Three**

- a) With the aid of a clear diagram, illustrate your understanding of the generalized scheme of mineral cycles in terrestrial ecosystems [6]
- b) Discuss the three distinct approaches to species preservation which are appropriate to different situations [6]
- c) Using a general classification of the members of the biotic component of an ecosystem, discuss the importance of each trophic level in the flow of energy and cycling of nutrients in an ecosystem. [8]

### **Question Four**

- a) Natural Selection is the mechanism that drives evolution. Summarize six stages through which it operates. [6]
- b) With respect to tropical rainforests, discuss the three major roles that are important to sustained, productive land use at global and local levels [6]
- c) Discuss five causes of wildlife mortality [8]



### **Question Five**

- a) Discuss any five causes of diversity in range forages [10]
- b) What are the effects of habitat fragmentation on wildlife populations [2]
- c) Discuss the values of wetlands to wildlife [8]

### **Question Six**

- a) Distinguish non-directional and directional community changes [5]
- b) Classify the living components of an ecosystem according to their feeding strategies [5]
- c) Describe the disturbance components. [5]
- d) Explicate the five causes of veld fires. [5]