

BOT 201E

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OFFICE OF THE DEPUTY PRINCIPAL  
ACADEMICS, STUDENT AFFAIRS AND RESEARCH

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## UNIVERSITY EXAMINATIONS

### 2018 /2019 ACADEMIC YEAR

SECOND YEAR FIRST SEMESTER REGULAR EXAMINATION

**FOR THE DEGREE OF BACHELOR OF  
EDUCATION (SCIENCE)**

**COURSE CODE: BOT 201E**

**COURSE TITLE: FUNDAMENTALS OF ECOLOGY**

**DATE: 11<sup>TH</sup> DECEMBER, 2018**

**TIME: 2.00 PM – 5.00 PM**

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### INSTRUCTIONS TO CANDIDATES

- SEE INSIDE

**THIS PAPER CONSISTS OF 3 PRINTED PAGES**

**PLEASE TURN OVER**

**BOT 201E**

**BOT 201E: FUNDAMENTALS OF ECOLOGY**

**STREAM: BED (SCIENCE)**

**DURATION: 3 Hours**

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**INSTRUCTIONS TO CANDIDATES**

- i. Answer **ALL** questions from section A and any **THREE** from section B.
  - ii. Diagrams should be used whenever they serve to illustrate the answer.
  - iii. Do not write on the question paper.
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**SECTION A (24 MARKS)**

**Question One**

- a) Differentiate the following terms;
  - i. Autecology and synecology (2 Marks)
  - ii. Parasitism and predation (2 Marks)
- b) Describe capture recapture method of estimating population. (4 Marks)
- c) Give an account of one type of ecological pyramid (1 Mark)
- d) Explain how light affects distribution of plants (3 Marks)

**Question Two**

- a) Define the following terms
  - i. Biome (1 Mark)
  - ii. Community (1 Mark)
  - iii. Biosphere (1 Mark)
- b) Two species cannot occupy one ecological niche. Explain (2 Marks)
- c) Give an account any two methods of human population growth control. (4 Marks)
- d) Explain how energy flows in an ecosystem (3 Marks)

**SECTION B (36 MARKS)**

**Question Three**

Discuss SIX biotic factors of an ecosystem (12 Marks)



**Question Four**

- a). Describe the process of succession from bare rock to climax community (8 Mark)
- b) Explain how human activities have caused ozone layer depletion (4 Marks)

**Question Five**

- a) Define the meaning of ecotone plant community (2 Marks)
- b) Discuss the features of ecotonal ecosystem (10 Marks)

**Question Six**

- a). Explain what is meant by carrying capacity of habitat (2 Marks)
- b). Explain how population carrying capacity is related to environmental resistance in an ecosystem (10 Marks)

**Question Seven**

- a). Describe how any three edaphic factors affect distribution of plants (6 Marks)
- b). Give an account of the carbon cycle (6 Marks)

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