



OFFICE OF THE DEPUTY PRINCIPAL
ACADEMICS, STUDENT AFFAIRS AND RESEARCH

UNIVERSITY EXAMINATIONS

2017 /2018 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER REGULAR EXAMINATION

**FOR THE DEGREE OF BACHELOR OF SCIENCE
IN MICROBIOLOGY**

COURSE CODE: BOT 111

COURSE TITLE: BASIC BOTANY II

DATE: 18TH APRIL, 2018

TIME: 9 AM – 12.00 NOON

INSTRUCTIONS TO CANDIDATES

- SEE INSIDE

THIS PAPER CONSISTS OF 3 PRINTED PAGES

PLEASE TURN OVER

BOT 111: BASIC BOTANY II**STREAM: BSc in Microbiology****DURATION: 3 Hours****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.

SECTION A (24 MARKS)**Question One**

- a) State any three methods of vegetative reproduction in Bryophytes (3 Marks)
- b) Distinguish between roots and rhizoids. (2 Marks)
- c) State any three uses of gymnosperms (3 Marks)
- d) Describe the two major groups of angiosperms. (4 Mark)

Question Two

- a) List three main types of ecological fires (3 Marks)
- b) Define photochemical smog. (2 Marks)
- c) State three effects of acid rain. (3 Marks)
- d) Highlight four causes of desertification. (4 Marks)

SECTION B (36 MARKS)**Question Three**

- a) Explain two main reasons for managing environmental pollution. (4 Marks)
- b) Using examples explain three approaches used in the management of environmental pollution. (6 Marks)
- c) Explain the following methods used in controlling gaseous pollutants
 - (i) Combustion (1 Mark)
 - (ii) Absorption (1 Mark)



Question Four

Explain what is considered during the following stages in making herbarium specimens:

- (i) Collecting (3 Marks)
- (ii) Pressing and preserving (3 Marks)
- (iii) Mounting (3 Marks)
- (iv) Labeling (3 Marks)

Question Five

- a) Explain four ways in which gymnosperms show evolutionary advancement over ferns. (8 Marks)
- b) Describe the structure and function of the guard cells. (4 Marks)

Question Six

- a) Give an account of the following methods of studying ecological surveys:-
 - i. Quadrat method (5 Marks)
 - ii. Transect method (5 Marks)
- b) Highlight four basic characteristics of an ecosystem. (2 Marks)

Question Seven

- a) Describe the effects of land pollution. (8 Marks)
- b) State the role of vascular vessels in plants. (4 Marks)
