JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF AGRICULTURAL AND FOOD SCIENCES

SECOND YEAR FIRST SEMESTER UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN AGRIBUSINESS MANAGEMENT, BACHELOR OF SCIENCE IN FOOD SECURITY AND BACHELOR OF SCIENCE IN SOIL SCIENCE

2018/2019 ACADEMIC YEAR

REGULAR

COURSE CODE: AAE 3212 & AFB 3212

COURSE TITLE: BIODIVERSITY AND AGRICULTURAL BIOTECHNOLOGY

STREAMS: BSc. Agribusiness (Y2S1), BSc. Food Security (Y2S1) & BSc. Soil Science (Y2S1)

DATE: 

EXAM SESSION: 

TIME: 2 HOURS

Instructions:

1. Answer ALL questions in section A and ANY other 2 Questions in section B.
2. Candidates are advised not to write on question paper.
3. Candidates must hand in their answer booklets to the invigilator while in the examination room.
SECTION A  [30 MARKS]

Answer ALL Questions from this section

1. Define the following terms (10 Marks)
   a. Ecosystem
   b. Biodiversity
   c. Bioprospecting
   d. Biotechnology
   e. Agrobiodiversity

2. Discuss the economic role of biodiversity (10 Marks)

3. Write short notes on ecological pyramids (6 Marks)

4. With examples, differentiate between in-situ and ex-situ biodiversity conservation (4 Marks)

SECTION B  [40 MARKS]

Answer ANY TWO questions from this Section.

5. With the aid of a diagram describe the process of decomposition (20 Marks)

6. Discuss the possible health and ecological risks associated with the use of transgenic crops in agriculture (20 Marks)

7. Discuss how the following factors put pressure on biodiversity (20 Marks)
   a. Climate change
   b. Invasive species
   c. Pollution
   d. Overexploitation
   e. Deforestation