



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF AGRICULTURAL AND FOOD SCIENCES

**FOURTH YEAR SECOND SEMESTER UNIVERSITY EXAMINATION FOR THE
DEGREE OF BACHELOR OF SCIENCE IN HORTICULTURE**

2016/2017 ACADEMIC YEAR

REGULAR

COURSE CODE: AAB 3424

COURSE TITLE: GMOs, BIOSAFETY AND BIOETHICS

EXAM VENUE:

STREAM: BSc. Horticulture

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. a. Define biosafety (1 mark)

b. What is bioethics and what is the role of bioethics in biotechnology (3 marks)

c. State the individual's responsibility to practice the at all times while in the laboratory: (3 marks)

d. State generalized labeling practices that have been established to protect laboratory employees from physical and health hazards associated with working with hazardous chemicals. (3 marks)
2. a. Write short notes on the following: Trade secrets and legal implications (3marks)

b. Write short notes on conventions on biotechnology (3 marks)

c. Highlight the role of Institutional Biosafety Committee (4 marks)
3. a. State and briefly explain different ethical issues involved in genetic testing (4 marks)

b. Classify different biosafety levels as per the guidelines (4 marks)

c. Write down the characteristic features of biohazard (2 marks)

SECTION B [40 MARKS]

Answer any TWO QUESTIONS from this Section.

- Q4. Discuss in details genetically modified organisms and their importance in life (20 marks).
- Q5. The General Laboratory Safety Manual offers generic safety guidelines and standard operating procedures for laboratories on campus. You have been appointed the Principal Investigator for a biotechnology laboratory in Jaramogi Oginga Odinga University of Science and Technology. Develop specific standard operating procedures for this laboratory. (20 marks)
- Q6. Discuss the different remedies available in Kenya against patent infringement (20 marks).