



# THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A constituent of JKUAT)

Faculty of Applied and Health Sciences

DEPARTMENT OF PURE AND APPLIED SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF  
TECHNOLOGY IN INDUSTRIAL MICROBIOLOGY AND  
BIOTECHNOLOGY

**BIMBT 09A**

## SBT 2436 : ETHICS & RISKS OF BIOTECHNOLOGY

SPECIAL/SUPPLEMENTARY EXAMINATION

FEBRUARY 2013 SERIES

2

HOURS

Instructions to candidates:

This paper consist of **FIVE** questions

Answer question **ONE** (compulsory) and any other **TWO** questions

### Question ONE

- Differentiate between continued use and contained field trial (4marks)
- Outline the main causes of differential fertility (3marks)
- Name THREE types of eugenics (3marks)
- Describe exceptions of the National Institute of Health guidelines (4marks)
- State TWO possible risks associated with consumption of transgenic crops (4marks)
- Describe viruses that are used as gene therapy vectors (4marks)
- Explain the impact of modern biotechnology on the loss of species diversity (4marks)
- Outline the environmental benefits of genetic engineering (4marks)

### Question TWO

Describe the biosafety regulation on environmental release of genetically modified organisms

**(20marks)**

**Question THREE**

Describe the potential of eugenics in restricting genetic diversity.

**(20marks)**

**Question FOUR**

Discuss the biosafety regulation on import export and transit of genetically modified organisms

**(20marks)**

**Question FIVE**

Outline major focus of the national institute of Health regulations on recombinant DNA technology research.

**(20marks)**