NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF APPLIED SCIENCE

DEPARTMENT OF APPLIED BIOLOGY AND BIOCHEMISTRY

BACHELOR OF SCIENCE HONOURS DEGREE IN BIOTECHNOLOGY

BIOTECHNOLOGY REGULATION AND BIOSAFETY (SBT1205)

Main Examination Paper

NOVEMBER 2024

This examination paper consists of 2 pages

Time Allowed	:	3 hours
Total Marks	:	100
Special Requirements	:	NONE
Examiner's Name	:	DR K. MUSHONGA

INSTRUCTIONS

1. Answer **Four (4)** questions. Each question carries 25 marks.
2. Where a question contains subdivisions, the mark value for each subdivision is given in brackets.
3. Illustrate your answer where appropriate with large, clearly labelled diagrams.

MARK ALLOCATION

QUESTION	MARKS
1.	**25**
2.	**25**
3.	**25**
4.	**25**
5.	**25**
6.	**25**
TOTAL	**100**

1. Describe and explain the biosafety levels (containment measures) for laboratories performing genetically modified organism operations.

2. Discuss the risk communication strategy you would use to meaningfully engage members of the general public and stakeholders on risks associated with introducing a genetically modified organism in Zimbabwe.

3. Outline the hypothesis-testing the "pathway-to-harm" for determining the effects of a foreign gene in genetically modified maize on biodiversity.

4. Write an essay on government policies that promote biosafety, plant biosecurity, and food/feed safety assessment of genetically modified organisms in Zimbabwe.

5. Discuss the principles of risk management and bioethical concerns in biotechnology regulation and biosafety.

6. Describe and explain the procedures and importance of intellectual property rights in biotechnology.

END OF EXAMINATION