



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF **PURE AND APPLIED SCIENCES**

DIPLOMA IN INDUSTRIAL MICROBIOLOGY AND BIOTECHNOLOGY

(DIMBT 10M)

ABT 2306: TRENDS IN INDUSTRIAL MICROBIOLOGY BIOPOLICY AND ETHICS

SPECIAL/SUPPLEMENTARY: EXAMINATIONS

SERIES: February 2013

TIME: 2 HOURS

INSTRUCTIONS:

You should have the following for this paper

- *Answer booklet*

This paper consists of **FIVE** questions.

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

This paper consists of 2 PRINTED pages

Question ONE

- a) Outline the role of the following in biotechnology
- (i) National Biotechnology education centre (2marks)
 - (ii) National Biosafety Authority (2marks)
 - (iii) Public education and Awareness creation (2marks)
 - (iv) National council for science and technology (2marks)
 - (v) Kenya Bureau of standard (KEBS) (2marks)
- b) Describe the roles of the following
- (i) Environmental biotechnology (2marks)
 - (ii) Coordination in biotechnology (4marks)
 - (iii) Treaty in biotechnology (2marks)
 - (iv) International law biotechnology (2marks)
- c) Define the following in relation to biotechnology
- (i) Intellectual property right (2marks)
 - (ii) Patent (2marks)
 - (iii) Copy right (2marks)
 - (iv) Trade mark (2marks)
 - (v) Bioprospecting (2marks)

Question TWO

Discuss intellectual property right in Biotechnology in relation to

- (i) Research, development and management (5marks)
- (ii) Technology transfer (5marks)
- (iii) Traditional knowledge (5marks)

Question THREE

Discuss the role of Biotechnology in relation to

- (i) Food and agriculture (5marks)
- (ii) Medicine and health (5marks)
- (iii) Industry and trade (5marks)

Question FOUR

- a) State the roles of ethics in biotechnology (6marks)
- b) Discuss the application, of ethics in biotechnology (9marks)

Question FIVE

- a) Outline the roles of bioprospecting in biotechnology (7marks)
- b) Discuss the application of bioprospecting in biotechnology (8marks)