



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF PURE AND APPLIED SCIENCES

DIPLOMA IN INDUSTRIAL MICROBIOLOGY AND BIOTECHNOLOGY
(DIMBT 11M)

ABT 2306 : TRENDS IN INDUSTRIAL MICROBIOLOGY & BIOTECHNOLOGY, BIOPOLICY , ETHICS

SEMESTER: EXAMINATIONS

SERIES: DECEMBER 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) Define the following terminologies
 - (i) Biotechnology (1mark)
 - (ii) Biopolicy (1mark)
 - (iii) Intellectual property rights (1mark)
 - (iv) Biodiversity (1mark)
 - (v) Biopiracy (1mark)
- b) Describe the main types of copyrights (3marks)
- c) Outline SEVEN importance of patents (7marks)
- d) Describe the issues addressed on Earth summit I (4marks)
- e) Outline the biosafety considerations for commercial release of products to consumers (6marks)
- f) Name FIVE online resources that have been declared for free access (5marks)

Question TWO

Discuss common aspects of policy framework in biotechnology (15marks)

Question THREE

Discuss stem cells under the following

- (i) Define (2marks)
- (ii) Types of stem cells (2marks)
- (iii) The use of stem cells in modern technology (5marks)
- (iv) Potential courses of stems cells (6marks)

Question FOUR

Discuss the advances in industrial microbiology and biotechnology as applied in Agriculture (15marks)

Question FIVE

Discuss the following legal theories that protect intellectual property

- (i) Plant breeders Rights (6marks)
- (ii) Trade secret (4marks)
- (iii) Trade mark (5marks)