

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
DEPARTMENT OF PLANT BIOLOGY
FIRST SEMESTER BTECH EXAMINATION, 2017/2018 SESSION

COURSE CODE PLB 213
COURSE TITLE: INTRODUCTION TO BIOTECHNOLOGY
COURSE UNIT: 3
TIME ALLOWED: 2 HOURS

INSTRUCTION: *ANSWER ANY FOUR (4) QUESTIONS IN ALL; AT LEAST ONE (1) QUESTION FROM EACH SECTION*

SECTION A

- 1 a. Define Biotechnology according to the following organizations
 - i U.S National Science Federation
 - ii United Nation Convention on Biological Diversityb. With the aid of a diagram explain the biotechnology tree.
- 2 a. Discuss the global impact of biotechnology in the following fields:
 - i. Health care
 - ii Agriculture
 - iii. Environment
 - iv. Industry

SECTION B

- 3 Recombinant therapeutic proteins have been improved through biotechnology. Explain with relevant examples
- 4 Explain the following:
 - i Species biodiversity
 - ii Ecosystem biodiversity
 - iii Genetic biodiversity

SECTION C

5. Expatiate the following:
 - a. The mis-use of Biotechnology and how it can be prevented
 - b. Safety testing and Government regulations on GM crops
6. Write notes on the following crop modification techniques:
 - i. Polyploidy
 - ii. Mutagenesis
 - iii. Transgenics
 - iv. Traditional cross breeding