



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE IN BIOTECHNOLOGY

SBC 544 – BIOSAFETY AND INTELLECTUAL PROPERTY RIGHTS

DATE: TUESDAY, 27TH MARCH 2012

TIME: 9.00 A.M. – 12.00 P.M.

Section A – Answer all questions 5 marks each

Question 1

How does the creation of a genetically engineered crop differ from that of a classically bred crop?

Question 2

In the late 1990s, Ewen & Pusztai conducted studies on rats fed potatoes engineered to express an introduced lectin gene from a snowdrop plant (*Galanthus nivalis*), intended to reduce insect damage. After feeding, they observed stomach lesions in the rats and concluded that “the damage to the rats did not come from the lectin, but apparently from the same process of genetic engineering that is used to create the GM foods everyone was already eating”. Give your analysis on this report.

Question 3

What is the role of National Biosafety Authority in Kenya?

Question 4

Do only genetically engineered foods cause food allergies?

Question 5

Are milk and meat from cloned cows safe to eat?

Question 6

Describe the role of Public Intellectual Property Resource for Agriculture (PIPRA) in making biotechnology inventions available to the public

Question 7

Countries that are signatories to the CBD agree, in principle, to:

Question 8

In 1989, it was reported that people died after consuming Tryptophan made by genetically engineered bacteria. Give a scientific analysis as to what may have caused the deaths

Section B – answer any THREE questions 20 MKS each**Question 1**

What happens to the DNA in foods when they are eaten?

Question 2

Do genetically engineered foods have changes in nutritional content?

Question 3

Is the Bt protein safe for human consumption?

Question 4

Will the use of genetically engineered crops result in the population decline of other organisms?
