



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR
OF SCIENCE (FOODS NUTRITION AND DIETETICS)

HFN 414: FOOD SAFETY, HYGIENE AND LEGISLATION

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DATE: FRIDAY 30TH MARCH 2012

TIME: 2.00 P.M. – 4.00 P.M.

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INSTRUCTIONS

- Read the following instructions carefully
- Answer ALL Questions

- Outline any four sources of microbial contamination of food (4 marks)
 - Explain the typical development of micro organisms in food. (4 marks)
 - Discuss any four methods of reducing microbial load of food. (4 marks)
 - Give a brief account of “crosscontamination of food” (4 marks)
 - What do you understand by the expression “danger zone?” (4 marks)
- What do you understand by term food quality? (2 marks)
 - What are additives and why are they used in foods? (2 marks)
 - What do you understand by the phrase “Hazzard Analysis Critical Control Point?” (2 marks)

- d) Explain the seven steps used in deriving HACCP (7 marks)
 - e) Explain the concept “Biomagnification as used in food safety” (2 marks)
 - f) There are two heavy metals which are of food safety concerns in Kenya.
What are they and how do they enter into our food chain? (5 marks)
3. It was reported in *The Standard* of 9th February 2012, pg. 14 that Nanyuki slaughterhouse had been closed by the Kenya government using one of the country’s food laws.
- a) Which food law was used? (2 marks)
 - b) Which ministry enforces this law? (2 marks)
 - c) Explain how it differs from any other common food law used in Kenya. (2 marks)
 - d) Explain how food laws differ from food standards (2 marks)
 - e) Discuss the role of Kenya Bureau of Standards (2 marks)
4. On 10th February 2012 The Daily Nation (page 31) quoted the Head of Horticultural Development Authority as saying this about Kenya’s food exports,
“Consumers in our key markets are very concerned about what they eat!”
- a) What was he talking about in relation to our food exports? (4 marks)
 - b) Explain the concept of “maximum residue limits” as used in quality control of food products (2 marks)
 - c) Explain the role of Codex in relation to the above statement by the Director of Horticultural Development Authority (4 marks)
5. The Daily Nation of 13th February 2012 reported that, Kenya eyes Genetic Modification of crops to ensure food security.
- a) What is genetic modification of crops? (2 marks)

- b) Identify any two traditional biotechnology techniques that has been used since time immemorial in Kenya. (2 marks)
- c) Explain any two new types of genetic modifications that Kenya is likely to adapt in the near future or may already be using. (4 marks)
- d) Explain any two major concerns of Kenyans about genetically modified foods. (2 marks)