



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

SECOND SEMESTER EXAMINATION FOR THE DIPLOMA IN FOODS NUTRITION AND DIETETICS

FND 019N: INTRODUCTION TO FOOD MICROBIOLOGY

DATE: Thursday 29th March 2012

TIME: 8.00a.m – 10.00a.m

INSTRUCTIONS

ANSWER ALL QUESTIONS

1. *Enterobacteriaceae* are defined as the hygiene group of microorganism. Explain giving two examples of microorganisms which belong to this group. [5marks]
2. a) Define biofilms. [2marks]
b) Briefly explain how biofilms are formed and their concerns in the food industry. [3marks]
3. Distinguish between food intoxication and food infections. Name two examples of micro-organisms in each case. [10marks]
4. Microbial food fermentations have found wide application in food production.
 - a) Explain five benefits of fermenting food products. [10marks]
 - b) Giving examples of food products in each case, state 5 applications (traditional and industrial) of microbial food fermentation. [5marks]
 - c) Explain five health benefits of consuming food products containing live micro-organisms. [5marks]

5. Understanding the factor influencing microbial growth is important for effective food preservation, food safety and microbial food production. Discuss this statement in relation to growth characteristics of micro-organisms in food products. [10marks]
6. The occurrence of food poisoning due to aflatoxin in Kenya is rampant:
- i) Give 4 types of foods associated with aflatoxicosis. [2marks]
 - ii) Name two species of aflatoxin producing moulds. [2marks]
 - iii) Explain the pre-disposing factors to food infestation by aflatoxins producing molds. [4marks]
 - iv) Explain the preventive measures which should be put in place to reduce the occurrence of aflatoxins. [6marks]
 - v) Discuss the health effects associated with the consumption of aflatoxins. [6marks]