



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2008/2009

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

HFN 310: FOOD MICROBIOLOGY II

DATE: Monday 14th September, 2009

TIME: 8.00 a.m – 10.00 a.m

INSTRUCTIONS: ANSWER ALL QUESTIONS

- Q1. i) Discuss intrinsic factors of a Food product that determine microbial growth. [15 marks]
- ii) Giving examples, explain the term “Biological pH”, how it is applied and the importance in Food Preservation. [6 marks]
- iii) Food preservation is achieved by controlling one or several of the intrinsic, implicit and extrinsic factors. Giving example with the various factor combinations. [9 marks]
- Q2. i) Human beings are the main causes of microbial food contamination. Discuss giving examples of critical points of exposure and the micro-organisms of concern. [10 marks]
- ii) Discuss the microbial effects of freezing in foods. [6 marks]
- iii) Explain the use of *Clostridium botulinum* as a reference micro-organism in food processing. [4 marks]
- Q3. Discuss briefly the microbial spoilage of the following food products:
- i) Tomato paste [4 marks]
- ii) Flour [4 marks]
- iii) Bread [4 marks]
- iv) Pasteurized Milk [4 marks]
- v) Honey [4 marks]
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