**SCHOOL OF HEALTH AND APPLIED SCIENCES**

**NOVEMBER 2014 EXAMINATION**

**DIPLOMA IN NUTRITION AND DIETETICS MANAGEMENT**

**FOOD MIOCROBIOLOGY AND PARASITOLOGY**

**KNEC 2426/103B**

**Instructions**

1. Write your admission number/index number on the answer booklet
2. Answer ALL questions in section A and any other TWO in section B

**Time 2 Hours**

**SECTION A (40 MARKS)**

1. Define the following terms as applicable in food microbiology: **(4 marks)**
2. Microbiology;
3. Parasitology,
4. Give six significance or importance of microbiology **(6 marks)**
5. For each of the following microorganisms, name two genera responsible for food spoilage:
6. Food-borne bacteria **(2 marks)**
7. Moulds **(2 marks)**
8. Yeast **(2 marks)**
9. Highlight any six sources of microorganisms found in food **(6 marks)**
10. Name any six methods for determining microorganisms and their products in food

**(6 marks)**

1. State five methods for food preservation **(5 marks)**
2. Name five foods likely to be spoilt by microorganisms **(5 marks)**
3. Mention two main ways for preventing food spoilage **(2 marks)**

**SECTION B (60 MARKS)**

1. Explain the following factors as applicable in food spoilage:
2. Intrinsic factors; **(10 marks)**
3. Extrinsic factors. **(10 marks)**
4. **a**. State any six types of spoilage for foods **(6 marks)**

**b**. Name any two microorganisms that cause spoilage for each of these types of foods:

**(8 marks)**

* 1. Raw meat;
  2. Raw milk;
  3. Fruits;
  4. Vegetables.

**c**. Explain the reasons for microbial spoilage in canned foods **(6 marks)**

1. Discuss the following methods for microbial testing in food: **(20 marks)**
2. Standard plate count
3. Most probable number
4. Direct microscopic count
5. Dye reduction method
6. a. Discuss the general control measures for prevention of food and water-borne diseases

**(10 marks)**

b. Explain the following degradation processes: **(10 marks)**

1. Putrefaction;
2. Fermentation;
3. Rancidity.