



UNIVERSITY EXAMINATIONS

**THIRD YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHEOR OF
HUMAN NUTRITION AND DIETETICS**

HNDS 342: FOOD HYGIENE AND SAFETY

STREAMS: HNDS Y3S1

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 18/12/2024

8.30 A.M – 10.30 A.M

INSTRUCTIONS:

- Answer **ALL** questions
- Do not write anything on the question paper
- No reference materials are allowed in the examination room
- **No** use of mobile phones or any other unauthorized materials
- Write your answers legibly and use your time wisely

SECTION A: MULTIPLE CHOICE QUESTIONS (15 MARKS)

1. What is the primary goal of food hygiene?
 - A. Improve taste
 - B. Prevent food spoilage
 - C. Eliminate foodborne illnesses
 - D. Extend shelf life

2. Which of the following is the correct temperature for storing refrigerated foods?
 - A. Above 10°C
 - B. Between 1°C and 4°C
 - C. Between 10°C and 20°C
 - D. Below -10°C

3. What is cross-contamination in food safety?
 - A. Mixing raw and cooked foods
 - B. Cooking food at a high temperature
 - C. Using the same utensils for raw and cooked foods
 - D. Washing food with contaminated water

4. Which bacteria is commonly associated with undercooked poultry?
 - A. E. coli
 - B. Salmonella
 - C. Listeria
 - D. Vibrio
5. What is the 'danger zone' temperature range where bacteria multiply rapidly?
 - A. 0°C to 30°C
 - B. 4°C to 60°C
 - C. 60°C to 100°C
 - D. Below 0°C
6. Which of the following is a method of preventing foodborne illness?
 - A. Using non-perishable foods
 - B. Cooking meat to a safe internal temperature
 - C. Storing food at room temperature
 - D. Avoiding washing hands
7. What is the recommended minimum internal temperature for cooking poultry?
 - A. 65°C
 - B. 70°C
 - C. 75°C
 - D. 82°C

Answer: C
8. Which of the following is NOT a common symptom of foodborne illness?
 - A. Fever
 - B. Nausea
 - C. Rash
 - D. Diarrhea
9. What is the best way to thaw frozen food?
 - A. On the kitchen counter
 - B. In cold water
 - C. In the refrigerator
 - D. In direct sunlight
10. Which type of food poisoning is often associated with rice and pasta left at room temperature?
 - A. Salmonella
 - B. Bacillus cereus
 - C. E. coli

D. Listeria

11. What is the ideal temperature range for storing frozen food?
 - A. Below -10°C
 - B. Below -18°C
 - C. 0°C to 4°C
 - D. 4°C to 6°C

12. Which cleaning agent is most effective for killing bacteria on surfaces?
 - A. Vinegar
 - B. Hot water
 - C. Detergent
 - D. Chlorine bleach

13. Which food item is most likely to cause botulism if not stored properly?
 - A. Fresh vegetables
 - B. Canned foods
 - C. Dairy products
 - D. Dried fruits

14. What is the primary cause of food spoilage?
 - A. Oxidation
 - B. Bacterial growth
 - C. Freezing
 - D. Washing

15. How should leftovers be stored to ensure food safety?
 - A. Left uncovered
 - B. In an airtight container
 - C. At room temperature
 - D. In a hot environment

SECTION B: SHORT ANSWER QUESTIONS (25 MARKS)

1. Sanitary practices in food preparation are essential to prevent contamination, foodborne illnesses, and ensure the safety and quality of the food being served to consumers.
Illustrate any **SIX** key sanitary practices in food preparation. (6Marks)

2. Safe receiving, storing, and handling of raw and prepared foods are critical practices in food establishments to prevent contamination, ensure food safety, and protect public health. Briefly explain some of the **FIVE** guidelines to be observed when storing food products. (5Marks)
3. Foodborne Illnesses are very critical if not well managed or prevented from affecting both the food handlers and consumers. Briefly explain any **TWO** types of these illnesses. (4Marks)
4. Food quality refers to the overall attributes of a food product that determine its desirability, acceptability, and nutritional value. Describe any **FIVE** characteristics of food quality in the food industries. (5Marks)
5. Discuss Any **FIVE** of the Legislations on food safety and quality control in Kenya. (5Marks)

SECTION C: LONG ANSWER QUESTIONS (30 MARKS)

1. A food hazard is a biological, chemical or physical agent in a food with the potential to cause adverse health effects (Codex Alimentarius Commission, 1997; Anon., 1996). There are many hazards associated with food that can and do cause injury and harm to human health.
 - a) Discuss **TWELVE** steps and measures to control these food hazards. (12marks)
 - b) Discuss any **FOUR** relevance of HACCP to Food Industry. (8Marks)
 2. Food waste and disposal are not only environmental issues, but also food safety hazards. Improper handling of food waste can attract pests, cause odors, contaminate water sources, and increase greenhouse gas emissions. Discuss any **FIVE** ways of managing the various food waste and disposal. (10marks)
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