



higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

SANITATION AND SAFETY N4

(8060094)

29 September 2020 (X-paper)
09:00–12:00

This question paper consists of 11 pages.

130Q1B2029

DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA
NATIONAL CERTIFICATE
SANITATION AND SAFETY N4
TIME: 3 HOURS
MARKS: 200

INSTRUCTIONS AND INFORMATION

1. Answer all the questions.
 2. Read all the questions carefully.
 3. Number the answers according to the numbering system used in this question paper.
 4. Write neatly and legibly.
-

SECTION A**QUESTION 1**

Various options are given as possible answers to the following questions. Choose the answer and write only the letter (A-D) next to the question number (1.1–1.10) in the ANSWER BOOK.

1.1 Which ONE of the statements with regard to bacteria is true?



- A All types of bacteria cause food poisoning.
- B Freezing makes food last longer by killing bacteria.
- C Bacteria grow fastest when they are warm.
- D All bacteria need air to survive.

1.2 At work, the best way to dry your hands after washing is:

- A Using a warm air dryer
- B Giving them a shake
- C Using a cotton towel
- D Using a paper towel

1.3 When cooking food, to what temperature should you cook it?

- A 63°
- B 70° for 2 minutes
- C 65°
- D 63° for 2 minutes



1.4 Why is it important to add the chemical to the water and not the water to the chemical?

- A If you add the chemical to water, you know the correct dilution ratio.
- B One needs to use so little of some chemicals that you would not see the amount in a container if you added the water last.
- C Water is cheaper than the chemical, and so you will use less chemicals by adding the chemical to the water.
- D There is less chance of a chemical reaction when you add the chemical to the water and not the other way around.

1.5 What does a disinfectant do?



- A Removes dirt and grease
- B Reduces bacteria to a safe level
- C Removes dirt, grease and kills bacteria
- D Kills bacteria

1.6 Which groups of people are more at risk from food poisoning or food-borne illnesses?

- A Chefs, food handlers, young children, and sick people
- B The elderly, young children, pregnant woman, and sick people
- C Young children, chefs and pregnant woman
- D The elderly, young children, and sick people 

1.7 A fire consisting of wood, plastic and paper is classified as:

- A Class A
- B Class B
- C Class C
- D Class D

1.8 In the case of an electrical fire, which fire extinguisher should be used?

- A Dry powder 
- B Dry powder
- C CO2 and dry powder
- D Water

1.9 Which factors influence the effectiveness of a chemical sanitizer?

- A Concentration, temperature, contact time, pH, and water hardness
- B Concentration, protein, acidity, air temperature, strength
- C Concentration, water activity, reactivity, pressure, density 
- D Concentration, absorbency, moisture, alkalinity, salinity

1.10 What should a food handler with an infected hand wound do in order to work safely with food?

- A Avoid working with raw food until the wound is completely dry
- B Apply hand sanitizer to the wound
- C Cover the wound with an impermeable cover and wear a single-use glove
- D Place a bandage on the wound

(10 × 2) [20]

QUESTION 2

Indicate whether the following statements are TRUE or FALSE by writing 'True' or 'False' next to the question number (2.1–2.10) in the ANSWER BOOK.

- 2.1 You can reheat leftovers as many times as you like. 
- 2.2 If food is cooked on the outside, it will definitely be cooked on the inside.
- 2.3 Most food poisoning bacteria are activated by cooking.
- 2.4 Fruits and vegetables should be washed, even if you are peeling them.
- 2.5 The temperature at which you cook leftovers does not matter because they have already been cooked.
- 2.6 Pregnant women, infants, seniors and people with weakened immune systems are at greater risk of developing food-borne illnesses.
- 2.7 The temperature of the water in a bain-marie should be 60° C or higher.
- 2.8 The purpose of detergent, a chemical product, is to kill bacteria. 
- 2.9 If potentially hazardous foods are to be displayed or sold hot, they must be kept at a temperature of 30° C or higher.
- 2.10 The temperature in a dry store should be between 11° C and 18° C.

(10 × 1) [10]

QUESTION 3

Identify the following foods and explain which control measures should be taken when handling and storing these particular food items.

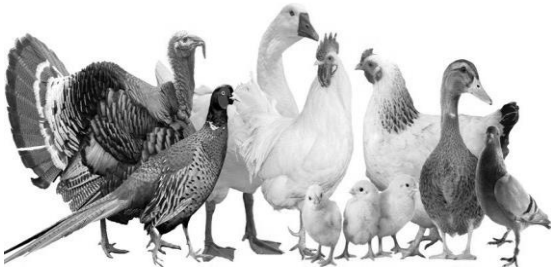
3.1



3.2



3.3



3.4



3.5



(5 × 4) [20]

TOTAL SECTION A: 50**SECTION B****QUESTION 4**

- 4.1 Read the following accidents that have taken place in various kitchens and explain in each incident how the situation should have been handled better in order to avoid the accidents from happening.



- 4.1.1 'At one of the restaurants where I was working, we had a newbie that had never worked in the business before. We stuck all new people on the fryers to start off, figuring they could do the least amount of damage there. Well, this guy decided to try to batter and fry frozen fish! Needless to say, the minute the fish went into the fryer, the oil bubbled up and completely engulfed his head resulting in severe burns almost all the way up to his elbow.'
- 4.1.2 'It was an extremely busy Friday night; we were getting our tails handed to us and it was time to clean up. Juan, my fry cook, was cleaning the fryers when his tongs fell in the fryer, and, I don't really know what he was thinking, he put his whole arm in the fryer to get the tongs. All I remember after that was his skin looking like melting chocolate.'
- 4.1.3 'When I was a young prep cook, I was asked to finish a crab cake project someone else had begun. They had dumped three five-pound cans of crab meat in a large mixing bowl, so I washed my hands and swept my fingers through the crab meat looking for pieces of shell or cartilage. Imagine my surprise when I discovered that the first cook had left the can lids in the bowl beneath the crab meat. I required stitches on 7 fingers, I bled all over 200 dollars worth of crab, and I was out of work for 3 weeks.
- 4.1.4 'Years ago, when I was managing a twenty-seven seat breakfast/lunch/dinner greasy spoon, I had worked an unusually long open to close shift. At the end of the night during clean up, I may have forgotten to turn off the one table-top fryer, or the thermostat went bad. But I'm pretty sure I checked and rechecked to make sure it was off. Either way, after locking up, getting home, and getting ready for bed, there was a knock on my door. It was a cabbie friend of mine telling me that the front of the restaurant was fully engulfed in flames. It seems that the frying oil overheated and caught fire. The flames reached the weak link on the cable actuator for the ansel system, which in turn blew with such force directly into the burning fry oil that it forced a lot of the flaming oil outward onto the salad bar, counter tops, tables, etc. Fortunately, the fire station was only four blocks away so they were able to control it quickly so that it didn't spread. It took us at least eight weeks to rebuild.

(4 × 2)

(8)

4.2 Name the FIVE main reasons why accidents occur in kitchens and workplaces. (5)



4.3 The Occupational Health and Safety Act was implemented to provide for the health and safety of people at work.

Explain FIVE legal obligations the employer must adhere to, and THREE obligations the employee must adhere to according to this Act. (5 + 3) (8)

4.4 All companies are liable to implement emergency plans. Discuss FIVE important factors one should consider when drafting an emergency plan. (5)



4.5 Study the pictures below and name SIX myths related to the fact that you cannot get HIV/AIDS. (6)



4.6 Discuss EIGHT symptoms of HIV. (8)

4.7 It is recommended that every employer implements a workplace programme in case some of his or her staff may be HIV positive.

Advise employers who do not abide with this and explain how they could improve on it. (5)



4.8 Drug abuse is unfortunately also cause for concern within the food industry.

Name FIVE hallucinogenic drugs. (5)

[50]

QUESTION 5

5.1 Define the term *hygiene*. (2)

5.2 Discuss personal hygiene under the following headings:

- 5.2.1 Care of hair 
- 5.2.2 Care of teeth
- 5.2.3 Care of feet

(5 × 3) (15)

5.3 Many chefs in the food industry smoke as they feel it alleviates stress and stressful situations. However, there are several reasons why smoking is not permitted in the food industry.

Discuss FOUR reasons. (4)

5.4 Name and explain THREE ways of preventing pests in the food industry. (6)

5.5 Read the following passage and answer the questions:

Death toll in South Africa. Listeria outbreak jumps to 61. 

JOHANNESBURG (Reuters) - The death toll from an outbreak of listeria in South Africa has jumped beyond 60 in the past month, health authorities said on Monday, adding they had closed a poultry abattoir where the bug that causes the disease was detected.

Since monitoring of the outbreak began last January, 720 laboratory-confirmed cases of food poisoning due to the disease, also known as listeriosis, have been reported, the National Institute of Communicable Diseases (NICD) said.

That was up from 557 in December, when recorded deaths had risen to 61 from 36. 

A food microbiologist said the 'alarming' outbreak appeared to be the biggest ever recorded, and could spread further if it was not tackled urgently.

'Of the documented outbreaks globally that we know of, our numbers are way above any of those other cases,' said Dr Lucia Anelich, who runs her own food safety consultancy.

The Department of Health said it had closed a poultry abattoir operated by Sovereign Foods in the capital, Pretoria, after detecting listeria there, and had banned the facility from preparing food in December.

The department said it did not yet know whether this abattoir was the source of the outbreak, which the NICD said was still unknown.

Sovereign Foods, which delisted from the Johannesburg stock exchange in November, said the prohibition on the abattoir was lifted on Monday after no listeria bacterium was found in the latest samples from the plant. 

'Despite being declared clean and free of the lysteria bacterium, we are further strengthening steps to render products safer than they already are,' said Sovereign Foods head of production, Blaine van Rensburg.

Listeria food poisoning is a bacterial infection that can be treated with antibiotics, if diagnosed in time. The bacteria can be found in animal products, including cold-cut meats, poultry and unpasteurised milk, as well as fresh fruits and vegetables.

The disease can cause flu-like symptoms and diarrhoea, and in more severe cases spread from the intestine to the blood, causing bloodstream infections, or to the central nervous system, causing meningitis.

Anelich said a listeriosis strain known as ST6 had been identified in nine out of 10 of the South African cases. That should make tracing the source easier, 'because now we know that it probably originates from one processing facility'. 

A health department official said the strain was not drug-resistant, and that the deaths were due to delays in diagnosis, meaning cases were not treated in time.

- | | | |
|-------|---|-------------|
| 5.5.1 | Discuss THREE general characteristics of microorganisms. | (3) |
| 5.5.2 | Food poisoning can be very severe. Discuss FIVE symptoms of food poisoning. | (5) |
| 5.5.3 | Bacteria can be found in high-risk foods and can cause food poisoning. Name FIVE high-risk foods.  | (5) |
| 5.5.4 | Name SIX factors that influence the growth of microorganisms. | (6) |
| 5.5.5 | Identify FOUR ways in which microorganisms can be destroyed. | (4) |
| | | [50] |

QUESTION 6

- 6.1 Under ideal conditions, bacteria populations will grow and multiply in various stages.
Name the FOUR stages and explain each stage briefly. (4 × 2) (8)
- 6.2 Name THREE uses for yeast in the food industry. (3)
- 6.3 Define the following terms 
- 6.3.1 Sterilant 
- 6.3.2 Sanitizer
- 6.3.3 Detergent (3 × 3) (9)
- 6.4 Name THREE reasons why you, as a food handler, must promote cleaning. (3)
- 6.5 Discuss THREE disadvantages of using steam as a cleaning method in the food industry. (3)
- 6.6 Explain FOUR objectives and principles of cleaning. (4)
- 6.7 Name THREE qualities a sanitizer should have when used in the kitchen.  (3)
- 6.8 Microbiological tests are completed to check whether a surface is clean.
Discuss swabbing as one of the tests that can be used. (5)
- 6.9 Caffeine is a stimulant and may cause intoxication of the body.
Name FIVE symptoms of intoxication. (5)
- 6.10 Drug abuse does not only have an effect on the body but causes other problems too. 
Name FIVE problems caused by drug abuse. (5)
- 6.11 Define the term *tannin*. (2)

[50]

TOTAL SECTION B: 150
GRAND TOTAL: 200