



higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

SANITATION AND SAFETY N4

31 May 2024

This marking guideline consists of 10 pages.

SECTION A

QUESTION 1

- 1.1 B
- 1.2 C
- 1.3 A
- 1.4 D
- 1.5 A
- 1.6 B
- 1.7 C
- 1.8 B
- 1.9 A
- 1.10 D

(10 × 1) [10]

QUESTION 2

- 2.1 True
- 2.2 True
- 2.3 True
- 2.4 False
- 2.5 True
- 2.6 True
- 2.7 True
- 2.8 False
- 2.9 False
- 2.10 True

(10 × 1) [10]

QUESTION 3

- 3.1 C, ✓ H ✓
- 3.2 E, ✓ F ✓
- 3.3 A, ✓ K ✓
- 3.4 B, ✓ I ✓
- 3.5 G, ✓ J ✓

(5 × 2) [10]

QUESTION 4

- 4.1 water
- 4.2 Listeria
- 4.3 Micro-aerobic
- 4.4 Dirty handkerchiefs
- 4.5 disinfectant
- 4.6 Protein
- 4.7 Starving
- 4.8 1 °C to 4 °C
- 4.9 depressant
- 4.10 weight loss

(10 × 1) [10]

QUESTION 5

- 5.1 Plaque
- 5.2 Tuberculosis
- 5.3 Capsule
- 5.4 Parasites
- 5.5 Electro tube
- 5.6 Tannin
- 5.7 Anaerobes/anaerobic
- 5.8 Autoclaving
- 5.9 Fetal alcohol syndrome
- 5.10 Milk stone

(10 × 1) [10]

TOTAL SECTION A: 50

SECTION B

QUESTION 6

- 6.1 6.1.1 Substances which have adverse effects on micro-organisms preventing cell growth✓ or in some way leading to cell death. These include disinfectants, sanitisers, chemotherapeutic substances and antibiotics.✓
- 6.1.2 The temperature range from 5 °C to 65 °C is referred to as the 'danger zone' by food safety experts.✓ It is in this 'zone' that bacteria thrive, nearly doubling in a mere 20 minutes.✓
- 6.1.3 A chemical control measure is used to 'smoke out' and kill insects using various chemical gasses.✓ It is not selective in its action and is therefore dangerous for humans, animals and pets as well as for pests for which it is applied, therefore it should only be applied by suitably trained staff.✓
- 6.1.4 The complete removal of food soil✓ using an appropriate detergent or suitable chemical under recommended conditions.✓
- 6.1.5 A dangerous type of bacteria which is harmful✓ and causes food borne diseases like food poisoning.✓
- 6.1.6 When mould reproduce it forms small seed cells called spores.✓ Spores detach and are carried by air currents and deposited to start new mould colonies where conditions are favourable.✓ (
- 6.1.7 A varnish-like substance that when hardened, crystallises.✓ As insects walk over the area, the crystals are picked up and then absorbed or swallowed by the insects.✓ (7 × 2) (14)
- 6.2 6.2.1 Emergency action plan
- 6.2.2 Acquired immune deficiency syndrome/Acquired immunodeficiency syndrome
- 6.2.3 Sexually transmitted disease
- 6.2.4 Ultraviolet
- 6.2.5 First in first out
- 6.2.6 Sexually transmitted infection (6 × 1) (6)

- 6.3
- Remain calm.
 - Act only after deciding what to do.
 - Remember that first aid is only temporary.
 - Ensure that the patient is comfortable and give assistance where needed.
 - Try to assess the nature of the injury.
 - Keep an air passage of the patient open.
 - Bleeding from a cut, artery or vein must be stopped.
 - Treat shock and avoid complications.
 - Never try to reset a bone fracture.
 - Summon a doctor if the injuries are serious.
 - If possible do not attempt to move the patient.
 - Once the patient is treated, record the incident in the accident book.
- (Any 8 × 1) (8)
- 6.4
- Remove surface oil and obstructions before cleaning.
 - Follow the least obstructive and disturbing method of cleaning.
 - Restore all surfaces to near-perfect condition as soon as possible.
 - Always use the simplest method of cleaning.
 - Be aware of safety hazards such as wet floors.
 - Remove all dust and dirt. Do not transfer it to another area.
 - Carry out the cleaning process in the quickest possible way.
 - The cleaning process aims to achieve clean, hygienic surfaces.
- (8)
- 6.5
- Sight✓ – Under good light, no signs of soil or wetness.✓
 - Touch✓ – No sign of greasy/rough feel on fingers.✓
 - Smell✓ – No objectionable odour present.✓
- (3 × 2) (6)
- 6.6
- Dry food
 - Acidic food
 - Food containing a high concentration of sugar
 - Canned food
 - Fatty food
- (Not examples of the types e.g. biltong, it must be dry/dried food)(Any 4 × 1) (4)
- 6.7
- Prevention
- Limit the breeding areas by storing food in airtight containers.✓
 - Rotating stock regularly.✓
- Eradication
- Lower the temperature, because the life cycle of the weevil is stopped by cold temperatures. Freeze foods for 2 days.✓
 - Mills can be sterilised through heat of 49 °C to 55 °C for 10 to 12 hours.✓
 - Mechanical action – the entoleter is a machine that flings the meal in which weevils and mites fester, against rotating rollers, eradicating pests in all stages of development.✓ (2✓✓ for prevention + Any 2✓✓ for eradication)
- (4)
[50]

QUESTION 7

- 7.1
- Time
 - Availability of food
 - Moisture (water requirements)
 - Temperature
 - Availability of oxygen
 - pH (acidity) surrounding the micro-organism
 - Competition
 - Light/darkness
- (Any 7 × 1) (7)
- 7.2
- 7.2.1
- Store poultry in the coldest part of the refrigerator (bottom shelves).
 - Chilled poultry should be used within two days.
 - Remove giblets and innards (guts) from the bird before freezing.
 - Place into well-sealed containers.
 - Raw poultry should be kept away from cooked food, as bacteria could be transferred.
 - Frozen birds should be tightly wrapped, well-labelled and dated.
 - The shelf life of poultry below 18 °C is 4-6 months.
 - Make sure the bird is properly thawed before it is cooked.
 - Poultry which is drawn/slaughtered in the kitchen should be cleaned carefully: boards, tables and knives must be thoroughly cleaned afterwards.
 - Fresh poultry must be hung by its legs in a well-ventilated room for ±24 hours.
 - Frozen poultry should be kept in a deep freezer until required. Thaw completely before cooking.
 - Poultry must never be re-frozen unless it has been cooked thoroughly after thawing.
 - Take out of the freezer the day before it is required and thaw in sealed containers in a fridge or cold room on the lowest shelf.
- (Any 5 × 1)

- 7.2.2
- Milk must be kept in the containers in which it was delivered.
 - Must be stored in a refrigerator.
 - Containers must be covered because milk absorbs strong flavours.
 - Fresh milk and cream should be purchased daily.
 - Tinned milk is stored in a dry, cool, well-ventilated room.
 - Milk powder is stored in an air-tight container in the dry store.
 - Imitation cream is kept in the refrigerator.
 - Pasteurised milk will be kept for up to 5 days under refrigeration.
 - Sterilised milk should be kept for a minimum of seven days if unopened.
 - Ultra-heated milk will keep, unopened, for several months.
 - Fresh milk may be frozen.
- (Any 5 × 1)
(5 × 2) (10)
- 7.3
- To prevent the spreading of diseases
 - To prevent damage
 - To prevent financial losses
 - To prevent food wastage
 - To comply with the law
- (5)
- 7.4
- Age (the younger you are, the more easily alcohol affects you)
 - Body size and weight
 - State of mind or mood
 - How much is drunk
 - How quickly the alcohol is consumed
 - Physical make-up
 - Personality
 - Previous experience of alcohol
 - State of tiredness or fatigue
 - Presence of any medicines
 - When last food was eaten
- (Any 10 × 1) (10)
- 7.5
- 7.5.1
- Produces increased wakefulness
 - Faster and clearer flow of thought
 - Increased focus
 - Better general body coordination
 - In athletics, moderate doses of caffeine can improve sprint, endurance and team sports performance, but the improvements are not usually very large
 - Increased attention
 - Increased memory performance
 - Increased intraocular pressure
 - Decreased risk of heart disease
 - Increased physical performance
 - Increased muscular recovery
 - Decreased risk of liver disease
- (Any 7 × 1)

- 7.5.2
- Elevation of heart rate and blood pressure
 - Restlessness
 - Anxiety
 - Insomnia
 - Gastrointestinal disturbance
 - Muscle twitching
 - A rambling flow of thought and speech
 - Irritability
 - Irregular or rapid heartbeat
 - In cases of much larger overdoses, depression, lapses in judgment, delusions, hallucinations, or psychosis may occur.
 - Diuretic that causes a loss of fluid, which then leads to a dehydrating effect.
- (Any 8 × 1) (8)
- 7.6
- Scrape out all food particles.
 - Wash it in hot soapy water and rinse thoroughly.
 - Hang out to air-dry before storing.
 - Plastic/disposable piping bags can be thrown away after use.
 - Nylon piping bag should be boiled for 10–15 minutes after washing to disinfect it.
- (Any 3 × 1) (3)
- [50]

QUESTION 8

- 8.1
- Cigarette ash and butts may contaminate food.
 - It is against the law.
 - Cigarette ends, which are contaminated with saliva, come into contact with food handlers' hands, encouraging cross-contamination.
 - Spit easily occurs on fingers when a cigarette is handled, transferring bacteria to food.
 - People touch their lips while smoking, which also transfers bacteria to food.
 - Smoking promotes coughing. While coughing, small droplets of saliva will spray across the kitchen, causing food contamination.
 - An unpleasant environment is created for non-smokers.
 - The unpleasant smell may spread to food.
 - Smoke breaks are required, causing a decrease in productivity.
 - Harmful bacteria such as staphylococci can get passed onto the food.
- (Any 5 × 1) (5)

- 8.2
- Do not damage the tooth enamel by biting off thread or biting on hard objects.
 - Visit the dentist regularly – at least once every six months – so that he may keep a careful check on your teeth.
 - To prevent tooth decay and unpleasant breath, brush your teeth after each meal or twice a day using a good toothbrush and suitable toothpaste. Buy a new toothbrush often and keep it clean.
 - Use an antiseptic mouthwash as an additional precaution.
 - To make the most of brushing your teeth, a person should choose a resilient soft-bristle toothbrush with a shape that suits one's mouth and allows one to reach all the teeth easily.
 - Use toothpaste with fluoride (a chemical compound that is added to toothpaste and drinking water to help prevent tooth decay).
 - Hold the toothbrush at a 45 degree angle against the gums, and brush back and forth in short movements.
 - Make certain to brush the outer, inner, and chewing surfaces (or flat surfaces) of the teeth. Brushing the tongue will help remove bacteria that can cause bad breath.
 - Brush teeth twice a day and rinse well after every meal. Brush before going to bed is important.
 - A well-balanced diet will also help to keep your mouth healthy. (Any 5 × 1) (5)
- 8.3
- Water is needed and must be available for cleaning and execution of many tasks.
 - The water pressure must be correct.
 - Potable water – water must be uncoloured, clear and free from taint and any suspended matter.
 - The temperature – warm and cold water must be supplied for the purpose at hand.
 - Cold fresh pure water enters a building via a series of pipes.
 - The water must be filtered and sterilised.
 - There must be a stopcock for turning off the main water supply in case of an emergency.
 - Pipes and general plumbing must be well insulated or boxed to prevent food pests from entering the premises.
 - Pipes and plumbing must regularly be inspected for damage.
 - Piping and equipment installed away from walls to prevent breeding places for pests. (Any 8 × 1) (8)
- 8.4
- Scrape of all leftover food particles.
 - Wash dishes using suitable detergent and hot water. Water temperature should be above 50 °C.
 - Rinse off all detergent residue. Water temperature should be above 60 °C.
 - Sanitise (eliminate and minimise cross-contamination) clean dishes, either by the use of hot water at the proper temperature or chemical sanitisers at the appropriate concentration.
 - Air dry because it is more hygienic than using a cloth. (5)

- 8.5
- Slips, trips or falls✓
Caused by slippery floors or clutter blocking pathways.✓
 - Cuts and grazes✓
Caused by incorrect or irresponsible use of equipment, such as knives or slicing machines.✓
 - Burning and scalding✓
Caused by leaving pots and oil unattended or not handling hot items or liquids cautiously.✓
 - Shock✓
Due to incorrect handling of electrical equipment or electrical faults due to neglected maintenance.✓
 - Injury✓
Due to incorrect lifting.✓
 - Near miss✓
Due to any unplanned occurrence that does not lead to injury of personnel or damage to property or equipment, but may have done in different circumstances.✓
- (6 × 2 (1✓ categories + Any logical/correct 1✓ for example)) (12)
- 8.6
- Helps to facilitate and organise employer and employees actions during workplace emergencies, having an organised evacuation or emergency response when needed.
 - It assists in fewer and less severe employee injuries during emergencies.
 - It assists in less structural damage to facilities during emergencies.
- (3)

- 8.7 8.7.1 Characteristics:
- 100 °C✓
- Uses:
- Sanitise small items (cloths, jelly/piping bags, nozzles knives, implements and equipment) which cannot be damaged by the temperature.✓
 - Exposure to boiling water for ±10 minutes destroys/kills all vegetative cells/bacteria and some spores.✓
- 8.7.2 Characteristics:
- 60 °C to 65 °C✓
 - Rinse water 77 °C✓
- Uses:
- Hot water with suitable chemicals applied with high-pressure jets is useful to clean non-absorbent, uncomplicated surfaces (tiles, floors, walls and plates).✓
 - Mostly used for general cleaning.✓
 - Reduce the microbial number (removing organic surface soil) by a mechanical effect (pressure).✓
 - The heat of the water destroys only the most heat-sensitive of bacterial spores.✓
 - Hot water evaporates – therefore obviates the need to dry items with a cloth, because it dries itself by evaporating – less bacterial spread.✓ (Any 1✓ characteristic + Any 2 ✓✓ uses)
- 8.7.3 Characteristics:
- Above 100 °C–180 °C✓
- Uses:
- Steam cleaner/machine is used to clean, sanitise/disinfect and remove most stains and build-up.✓
 - Steam loosens dirt on hard surfaces and softens fibres.✓
 - All fungi, mould, bacteria and other allergens are killed.✓
 - It can clean different types of surfaces due to its good penetrating power, reaching difficult-to-reach areas e.g. floors, carpets and upholstery.✓ (Any 1✓ characteristic + Any 2 ✓✓ uses)
- (3 × 3) (9)
- 8.8 • An additional sink for pre-rinsing before washing is used.
- Washing takes place in the second sink: water contain a detergent and vary from 46 °C to 55 °C.
- Third sink-rinsing at 77 °C for 1–2 minutes.
- (3)

[50]

TOTAL SECTION B: 150
GRAND TOTAL: 200