





CONFECTIONARY PROCESSING

Level-II

Based on May 2019, Version 2 Occupational standards

Module Title: - Cleaning and sanitizing equipment

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LG #15



Instruction sheet
This learning guide is developed to provide you the necessary information regarding the
following content coverage and topics:
 Making available cleaning/sanitizing agents and services.
Clearing the equipment
Rendering equipment to make safe clean
This guide will also assist you to attain the learning outcomes stated in the cover page.
Specifically, upon completion of this learning guide, you will be able to:
 Make available cleaning/sanitizing agents and services.
Clear the equipment
Render equipment to make safe clean
Learning Instructions:
1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below.
3. Read the information written in the information Sheets

LO #1- Prepare for cleaning

- 4. Accomplish the Self-checks
- 5. Perform Operation Sheets
- 6. Do the "LAP test"

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Information Sheet 1- Make available cleaning/sanitizing agents and Services

1.1. Cleaning agents

Cleaning agent is substances (usually liquids, powders, sprays, or granules) used to remove dirt, including dust, stains, bad smells, and clutter on surfaces.

There are four main types of cleaning agents used:-

- a. Detergents
- b. Degreasers
- c. Abrasives
- d. Acids

A. Detergents

Detergents are the most common type of cleaning agent and are used in home and commercial kitchens. They work by breaking up dirt or soil, making it easy to wash it away.

The detergents used in commercial kitchens are usually synthetic detergents made from petroleum products and may be in the form of powder, liquid, gel or crystals.

B. Degreasers

Degreasers are sometimes known as solvent cleaners and are used to remove grease from surfaces such as oven tops, counters and grill backsplashes.

Methylated spirits or white spirit was commonly used as degreasers in the past. Most food businesses now try to use non-toxic, non-fuming degreasers in their operations to prevent chemical contamination.

C. Abrasives

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Abrasives are substances or chemicals that depend on rubbing or scrubbing action to clean dirt from hard surfaces. In commercial kitchens, abrasives are usually used to clean floors, pots and pans.

Abrasives should be used with care as they may scratch certain types of materials used for kitchen equipment such as plastic or stainless steel.

D. Acids

Acid cleaners are the most powerful type of cleaning agent and should be used with care. If they are not diluted correctly, acid cleaners can be very poisonous and corrosive. Acid cleaners are generally used to remove mineral deposits and are useful for decaling dishwashers or removing rust from restroom facilities.

1.1.1. Purposes of cleaning agents

Purposes of cleaning agents include health, beauty, removing offensive odor, and avoiding the spread of dirt and contaminants to oneself and others.

Examples of cleaning agents/chemicals	Purpose & Proper Usage
All-purpose cleaner	All-purpose cleaner used for cleaning all cleaning activities.
furniture care	To Polish furniture surface

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Insecticides	To be used in fumigation and to eliminate insects and pests. In as much as the chemical is toxic, avoid spraying unto food containers and food items. Remove food within the affected areas during the fumigation.
Methylated Spirit	It is a chemicals used for polishing all glass surfaces such as mirrors, windows, etc. This chemical is highly flammable and must never be used near fire or flame. It also has high degree of evaporation and should therefore be used in small area sparingly one at a time to avoid wastage.
Air Freshener	To be sprayed in the room in order to remove foul odor in guestrooms, comfort rooms or any area with foul odor. Use to remove stain or spot on carpets.
Carpet Stain Remover like Atomizer	Follow direction to use seen on the container or bottle.

Fig.2. Different types of cleaning agents

1.2. Sanitizing agents mean

Sanitizing agents are chemical agents designed to inactivate or destroy microorganisms on inert surfaces. Disinfection does not necessarily kill all microorganisms, especially

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resistant bacterial spores; it is less effective than sterilization, which is an extreme physical or chemical process that kills all types of life. Disinfectants are generally distinguished from other antimicrobial agents such as antibiotics, which destroy microorganisms within the body, and antiseptics, which destroy microorganisms on living tissue. Disinfectants are also different from biocides — the latter are intended to destroy all forms of life, not just microorganisms. Disinfectants work by destroying the cell wall of microbes or interfering with their metabolism. It is also a form of decontamination, and can be defined as the process whereby physical or chemical methods are used to reduce the amount of pathogenic microorganisms on a surface.

Disinfection of a floor using disinfectant liquid applied using a mop. Sanitizers are substances that simultaneously clean and disinfect

To adequately treat cleaned surfaces by a process effective in destroying vegetative cells of pathogens, and in substantially reducing numbers of other undesirable microorganisms

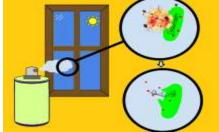


Fig.2ainting agents

1.3. Make available Services for cleaning

When we make available the service it may include:

a. Lighting and power

Where lighting is needed, florescent tubes use less electricity than light bulbs. Electric power points should be located at least one meter above the floor so that there is no risk of them getting wet when the floor and equipment is washed down. Ideally, waterproof sockets should be used. Each power point should only be used for one machine. Multiple sockets should not be used because they risk overloading a circuit and causing a fire. All plugs should have fuses that are appropriate for the power rating of the equipment and the mains supply should have an earth leakage trip-switch.

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Cables should be properly fixed to walls or run vertically from the ceiling to machines. There should be no exposed wires at any connection. Electric motors should be fitted with separate starters and isolators.

b. Water supply and sanitation

Potable water is essential in all fruit and vegetable processing, as an ingredient in some products and for washing down equipment. An adequate supply of potable water should be available from taps in the processing room. If there is no mains supply, or if the mains supply is unreliable or contaminated, water from boreholes is likely to be relatively free from microorganisms, but it may be contaminated with sand. River water is likely to be contaminated and should only be used if no other source is available.

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Self-check 1 Written test

Name...... ID...... Date......

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: Choose the best answer (4 points each questions)

- 1. Which substances or chemicals are depending up on rubbing or scrubbing action to clean dirt from hard surfaces?
- A. Detergent B. Abrasive C. Degreasers D. Acids
- 2. What are the purposes of cleaning agents?
 - a. Health
 - b. Beauty
 - c. removing offensive odor
 - d. All
- 3. Which chemicals not used during sanitizing?
 - a. Bleaching B. acid c. Disfectants D. "a" and "b" e. none

Test II: Short Answer Questions

- 1. Define the meaning of cleaning? (3points)
- 2. What is the meaning of sanitizing? (3points)
- 3. List and define all cleaning agents. (3points)
- 4. Why you make available cleaning/sanitizing equipment? (3points)

Answer Sheet

Score =
Rating:

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Name: _____

Date: _____

Information Sheet 2- Clear the equipment for cleaning

2.1. Clearing equipment's

Clearing is the process of removing unnecessary equipment from the working area to minimize the obstacles. In general, all cleaning equipment used in healthcare facilities should be fit for purpose, cleaned and stored dry between use, well maintained and used appropriately. Cleaning equipment's are a variety of necessary and vital equipment and products created and designed in various colors, materials, mechanisms, shapes, sizes and styles to meet a cleaning need and used to clean easily, effectively and efficiently.

Cleaning equipment is necessary and vital for a person to clean easily and effectively especially when it's in their form of employment.



ouse Cleaning, Equip... eamstime.com



window cleaning equipment clear view ... pinterest.com







Cleaning Equipment Such Stock Photo ... shutterstock.com



Fig. 2.1. Clearing equipment from work area

2.1.1. Advantage of clearing equipment

The clearing equipment is advantageous in multiple ways -

- Equally effective for general as well as together cleaning tasks.
- High cleaning capability.

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- Reduce work fatigue and increase productivity.
- Save the time of production workers.
- High maneuverability. They can reach any corner or height of the room, which is otherwise difficult to reach.
- Eco-friendly, widely available, and easy to operate.
- They give protection from injuries occurring while cleaning when they are handled by using proper instructions.
- Here are 7 cleaning equipment necessities for workplace cleanliness
- **a. Matting systems**: A good interior and exterior matting system works 24/7 and can dramatically reduce how much moisture, salt, sand, and other types of debris enter the building, thus, decreasing slip and fall incidents.

Trash containers: One of the simplest ways to control odors and contain waste is with the correct size and style trash container. Oftentimes, trash containers and receptacles are incorrectly sized for the area or soil load. Too large, and the container or receptacle may not get changed as needed causing odors and bacteria to harbor. Too small, and the trash may over-fill prematurely. The wrong size liner will contribute to increased and unnecessary costs due to excessive plastic waste.

- **b. Transportation:** Cleaning supplies and equipment must be "at the ready" when needed. Utility, tilt, cube, and janitor style carts are a great addition to help transport supplies and equipment from room to room and haul trash out of the building.
- **c.** Vacuums: Essential for dust removal, a commercial vacuum with the proper filtration will remove and contain dust and dry soil from carpet, hard floors, walls, and ceilings.
- d. Mopping Systems: Hard floors like tile and wood should be dust mopped, swept, or vacuumed daily to remove loose, dry soil that can abrade the floor surface and/ or finish-seal. Wet cleaning using microfiber technology will remove the soil left behind and will enhance and maintain the surface.
- e. Automatic scrubbers: Large areas may require daily or weekly deep cleaning to keep floors looking their best. Maintaining VCT and other hard floor surfaces with the proper equipment such as an automatic scrubber will help extend the life of the floor





coating. These units are designed to scrub, clean, rinse, remove the soil, and dry the floor in one, easy step.

f. High speed burnishes: For floors treated with floor finish, a high speed burnishes, using the correct pad and maintenance products, will keep the floors at an optimum gloss while helping to remove surface scratches, scuffs, swirls, and residues.

The work environment influences employee's productivity, performance, and well-being. Keeping your facility clean and safe is critical and choosing the correct cleaning equipment will help.

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Self-check 2 Written test

Name...... ID...... Date......

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: Choose the best answer (4 point)

- 1. What is the advantage of clearing equipment?
 - A. Equally effective for general as well as together cleaning tasks.
 - B. High cleaning capability.
 - C. Reduce work fatigue and increase productivity.
 - D. Save the time of production workers.
 - E. All

2. _____using microfiber technology will remove the soil left behind and will enhance and maintain the surface.

A. Wet cleaning B. dry cleaning C. vacuum cleaning D. polisher

Test II: Short Answer Questions

- 1. List all cleaning equipment necessities for workplace cleanliness
- 2. Which equipment's Essential for dust removal?

Note: Satisfactory rating ≥5 points Unsatisfactory - below 5 points

You can ask you teacher for the copy of the correct answers.

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Information Sheet- 3 | Rendering equipment to make safe clean

3.1. Rendering equipment to make safe clean safety

Renders provide a low maintenance solution to external rendering on both commercial and residential properties. To ensure a freshly rendered appearance for a prolonged period follow the 3 easy steps below:

- a. Where general staining occurs, use a warm power wash and suitable detergent to be clean.
- b. Take care to adjust the pressure of the power washer to ensure that the render is not damaged during the procedure (This is not suitable for Dry Dash finishes)
- c. An annual coat of destroying fungi wash can prevent algae from growing on weather prevailing facades, which can be prone to algae by remaining wet over long periods.

In delivering a safe and clean care environment, all staffs have responsibility for ensuring that cleanliness standards are maintained at all times. All staff has a responsibility for ensuring that all patient equipment is cleaned between each food handler use to standards as outlined within the revised healthcare cleaning manual.

It is an essential prerequisite program for food safety. The Preventive Controls Regulation for Human Food found in 21 CFR Part 117 USDA. (2009).further underscores the importance of this element. Preventive controls are defined as:

"...those risk-based, reasonably appropriate procedures, practices and processes that a person knowledgeable about the safe manufacturing, processing, packing or holding of food would employ to significantly minimize or prevent the hazards identified under the hazard analysis that are consistent with the current scientific understanding of safe food manufacturing, processing, packing or holding at the time of the analysis."

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The regulation establishes the following preventive controls:

- a. Process
- b. Allergen
- c. Sanitation
- d. Supply Chain
- e. Recall
- f. Other

• Critical to safety of clean

When employees work in a messy environment, they may not notice hazards that can increase the risk of an accident. According to the Occupational Safety and Health Administration (OSHA), one of the "root causes" of workplace injuries, illnesses, and incidents is the failure to identify or recognize hazards that are present or that could have been anticipated.

3.2. Cleaning and Sterilization Steps

The following steps should help you with the cleaning and sterilization of contaminated instruments in your workplace.

1. Use Proper Decontamination Areas

Do not clean contaminated equipment where you use it; it must be taken to a specially designated decontamination area. This area must have a sink with cold and hot running water for the cleaning and disinfecting of the equipment.

2. Wear Your PPE

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It's important to protect yourself when cleaning and decontaminating equipment, which means wearing your personal protective equipment.

Personal Protective Equipment (PPE)

Personal Protective Equipment's (PPE) is equipment's and clothing items designed to protect the user from potential hazards or injuries whilst doing a task at work. PPE: includes

- Face masks
- Gloves and apron
- Hairnets
- Protective shoes

3. Presoak Instruments

Soaking them too long can result in the equipment developing corrosions and biofilms which will make cleanup harder than it should be. Keep equipment and instruments in a holding solution for a short time period. This will make cleanup and decontamination easier. And easier is good.

4. Clean Instruments

There are two general approaches here – ultrasonic cleaning and hand washing. This is the first step before using an autoclave.

a. Ultrasonic Cleaning

Do not mistake this for sterilization, because it's not. Instead, it uses ultrasonic waves and an appropriate cleaning solvent. Make sure to follow the manufacturer's instructions on your machine. It's also important to disassemble all grips, tubes, and tips after cleaning to allow for better sterilization.

b. Hand washing

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Instruments should be submerged while scrubbing them to reduce splattering and the chance of cross-contamination. After washing, rinse thoroughly and allow all instruments to air dry before sterilization.

5. Packaging for Autoclave

All equipment should be packaged in special set-up packs with color change indicators or packaged individually in peel packs with color change indicators. Keep hinged instruments in the open position. And all packages should be dated and initialed by the preparer.

6. Sterilize with the Autoclave

Anyone using an autoclave needs to be trained on how to use an autoclave. There are no training wheels!

Sterilization requires varying degrees of time depending on:

- The load
- How items are arranged
- The packaging of materials
- Temperature
- Type of sterilizing agent

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-check 3 Written test
-check 3 Written

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Name...... ID...... Date.....

Test I: say true or false

- 1. Take care to adjust the pressure of the power washer to ensure that the render is not damaged during the procedure. (3points)
- 2. Hairnets are not PPE. (3points)
- 3. Sterilize with the Autoclave is the steps of cleaning and sterilizing. (3points)

Test- II Short Answer Questions

- 1. Write down all the regulation establishes the preventive controls. (3points)
- 2. List and define PPE. (3points)
- 3. Who is responsible to safe and clean equipment and care environment of workplace? (3points)
- 4. Why you sterilize equipment? (3points)
- 5. Write Sterilization Steps of instruments (3points)

Answer Sheet

Score =
Rating:

Note: Satisfactory rating ≥5 points Unsatisfactory - below 5 points

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Name:

Date: _____

You can ask you teacher for the copy of the correct answers.

LG #16 LO #2- Clean and sanitize equipment to meet workplace requirements

Instruction sheet

This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics:

- Cleaning and sanitizing the equipment.
- Inspecting equipment to confirm operating condition and cleanliness.
- Identifying and report unacceptable equipment condition
- Storing the cleaning equipment and chemicals
- Disposing waste during cleaning process
- Conducting the work in the workplace environmental guidelines.
- Restoring the equipment to operating order

This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Clean and sanitize the equipment.
- Inspect equipment to confirm operating condition and cleanliness.
- Identify and report unacceptable equipment condition
- Store the cleaning equipment and chemicals
- Dispose waste during cleaning process
- Conduct the work in the workplace environmental guidelines.
- Restore the equipment to operating order

Learning Instructions:

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- 1. Read the specific objectives of this Learning Guide.
- 2. Follow the instructions described below.
- 3. Read the information written in the information Sheets
- 4. Accomplish the Self-checks
- 5. Perform Operation Sheets
- 6. Do the "LAP test"

Information Sheet- 1	Cleaning and sanitizing the equipment.

1.1. Cleaning the Equipment

Cleaning is the process of removing unwanted substances, such as dirt, infectious agents, and other impurities, from equipment or environment. Cleaning occurs in many different contexts, and uses many different methods. Several occupations are devoted to cleaning. It is also the physical removal of visible soil and food from a surface. It is a two - way process that occurs when a cleaning compound such as a detergent is put in contact with a soiled surface.

Cleaning of utensils involves a two-part operation.

- a. The first cleaning procedure to free the utensils of visible soil by scraping or a water flow method.
- b. The second part is the sanitizing or bacterial treatment to eliminate the health hazard.

Pressure is applied using a brush, cloth, scrub pad or water spray for a long enough period of line to penetrate the soil so it can be easily removed during the second step of rinsing.

1.1.1. Types of cleaning equipment

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Cleaning equipment is commonly divided into two categories:

- Manual cleaning equipment
- Electrically powered equipment
- Manual cleaning equipment Brushes



Fig 1.2 Different types of cleaning equipment's and brushes

• Brushes

Brushes are devices with bristles, wire or other filaments, used for cleaning. Brushes used for cleaning come in various sizes, such as: Very small brushes for cleaning a fine instrument, toothbrushes, the household version that usually comes with a dustpan, or the broom stick. Hall brooms are even larger and are used for cleaning large areas. Cleaning brushes also include brushes for cleaning the toilet, washing glass, finishing tiles, and sanding doors. There are mainly three types of brushes: •

 ✓ Hard brush: have bristles that are stiff and well-spaced. These are most suitable for removal of litter. Example: upholstery brush, carpet brush etc. .

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- ✓ Soft brush: have bristles that are flexible and set close together. They can be used to remove loose soil and litter. Example: tooth brush, feather brush, shoe brush, coat brush etc. .
- Scrubbing brush: can be used to remove heavy soiling from small areas or by the use of mechanical scrubbing machines, if possible. Example: deck scrubber, club shaped / hockey stick shaped toilet brush, etc.

• Mops

A mop is a tool generally used for cleaning floors, although when possible it is also used for cleaning other surfaces, for example tiled walls, to avoid unhygienic working conditions. The following are the different types of mops.

• Dry mop, dust mop

A dry mop or dust mop is designed to pick up dry, loose contamination like dust, earth and sand from the floor surface. It consists of yarn and / or microfiber and is used as a first step in cleaning a floor. Dry mops can be similar to the yarn wet mop, but with wider eyes and shorter hairs than wet mops. Ideally, it should be machine washed when it becomes saturated with dust.

• Wet mop, moist mop

A wet mop or moist mop is, in professional cleaning, used as a second step in the cleaning of a surface. The wet mop is swept over the surface to dissolve and absorb fat, mud and dried-in liquid contaminations.

• Hot mop Wet mop

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Hot mop Wet mop is also called the hot mop, which works on a similar concept to a steam iron. After adding water, it is heated to make the water exude on top of a floor, which can then be cleaned without using a cleaning solvent. These can work best on surfaces where a regular mop would also be used, such as floors, hearths, and laminates.



Fig 2.2 Different mops

• Broom

A broom is a cleaning tool consisting of stiff fibers attached to, and roughly parallel to, a cylindrical handle, the broomstick. A smaller whisk broom or brush is sometimes called a duster.



Fig 2.3 Different brooms

• Squeegees

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A squeegee is a cleaning tool with a flat, smooth and thick rubber blade, used to remove or control the flow of liquid on a flat surface. It is used for cleaning floors and small thin and flexible squeegee is used for cleaning windows.



Fig 2.4 Different squeegees

1.1.2. Purpose of cleaning

It is used to remove dirt, including dust, stains, bad smells, and clutter on surfaces. Purposes of cleaning agents include health, beauty, removing offensive odor, and avoiding the spread of dirt and contaminants to oneself and others.

Cleaning equipment's

Cleaning equipment's are a variety of necessary and vital equipment and products created and designed in various colors, materials, mechanisms, shapes, sizes and styles to meet a cleaning need and used to clean easily, effectively and efficiently. Cleaning equipment is necessary and vital for a person to clean easily and effectively especially when it's in their form of employment.

The employees need to take the help of various cleaning equipment while trying to keep the house premises to the highest standard of appearance. Today, there is a wide range of cleaning products available in the market

1.2. Cleaning requirement

The cleaning schedule contained within the Standard is designed to produce a clean and odor-free environment that is fit for purpose. This means that all surfaces are

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free from foreign matter such as dust, dirt, litter, cobwebs, fingerprints, streaks, stains, greasy marks and residues.



Fig. 2 .1 preparing cleaning materials and equipment's

1.2.1. Advantage of cleaning equipment

The cleaning equipment is advantageous in multiple ways -

- 1. Equally effective for general as well as tougher cleaning tasks.
- 2. High cleaning capability
- 3. Reduce work fatigue and increase productivity.
- 4. Save the time of domestic workers.
- 5. High maneuverability. They can reach any corner or height of the room, which is otherwise difficult to reach.
- 6. They give protection from injuries occurring while cleaning when they are handled by using proper instructions.

1.3. What is sanitation

Sanitation is the science of safeguarding people's health through cleanliness. For a long time, people didn't realize that cleanliness could fight disease. Then scientists discovered the tiny plants that can cause disease. These small bits of life are called microorganisms. They are too small to be seen by the naked eye.

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Microorganisms are almost everywhere. They are in our food, water, and air. Even dust carries them. Many live in our bodies as well. Some help our bodies function. Others can cause illness and even death. Harmful microorganisms are often called germs. Controlling harmful microorganisms is what sanitation is all about.

Keep in mind, however, that while sanitation and cleanliness go hand in hand, it is possible to be clean without being sanitary.

Sanitizing is a process that reduces the number of microorganisms to safe levels on food contact surfaces such as tableware, equipment and work surfaces. Sanitized surfaces are not necessarily sterile, which means to be free of microorganisms. Sanitizing is a resource-intensive function in any food operation.

Mismanagement of sanitizing can result to:

- injury to employees and customers,
- waste of chemicals and money,
- Damage to equipment and facilities.

Self-Check -1	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

Test -I choose the best answer (each one 3 points)

- 1. A ______is a cleaning tool consisting of stiff fibers attached.
 - A. Broom B. Mops C. vacuum cleaner D. squeegee
- 2. Which is not manual cleaning equipment?

A. Broom B. mop C. vacuum cleaner D. squeegee

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Test -II. Short answer questions

- 1. List and define manual cleaning equipment? (3 points)
- 2. Write the purpose of cleaning agent? (3 point)
- 3. List all cleaning equipment's. (3 point)

Answer Shee

Name:

Note: Satisfactory rating ≥5 points Unsatisfactory - below 5 points

,	Score =
	Rating:
Date:	

You can ask you teacher for the copy of the correct answers.

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Information Sheet- 2	Inspecting equipment to confirm operating condition and
	cleanliness

2.1. Inspecting equipment

This term describes an item of equipment in excellent condition capable of being used to its fully specified utilization for its designated purpose, without being modified and not requiring any repairs or abnormal maintenance at the time of inspection or within the foreseeable future.

A visual "circle check" or pre-operational inspection of equipment prior to every use will reduce the chance of equipment being operated in an unsafe condition. This makes it easier to spot and deal with maintenance issues early before they turn into a problem causing downtime, equipment damage or expensive repairs. Unsafe machinery can also cause injury to the operator or other workers and damage to facilities or product.

2.2. Checking the working condition of cleaning equipment

Checking the working condition of cleaning equipment may include:

- Equipment does not have any jagged parts, edges that can cause injury.
- Damage to equipment has not affected its operational safety.
- mop head looks presentable
- Buckets should be free of leaks, not smelly and have secure handles.
- Items to be used need to sufficient in number you need to have enough cleaning cloths, disposable gloves etc. to get the job done.
 - Items must be appropriate for task many instances of damage or injury have resulted from trying to complete a cleaning job without the right tools
 - Make sure all necessary attachments for vacuum cleaners, polishers and other equipment is taken with you before leaving the cleaning store to enable you to complete the intended task. This saves time and effort

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- All electrically-powered and battery-powered items must be used strictly in accordance with manufacturer's instructions. If you don't know how to use an item either read the instructions or ask an experienced staff member to show you what to do
- A standard check with any piece of electrical equipment is to ensure the electrical cord is safe to use not frayed or broken and with no wires exposed.
- Make sure any battery-operated equipment is adequately charged before using it. Low battery power can adversely affect cleaning performance and causes time loss when the job has to be interrupted to remedy the situation.

2.3. Inspecting equipment to confirm operating condition

The purpose of an inspection is to identify whether work equipment can be operated, adjusted and maintained safely – with any deterioration detected and remedied before it results in a health and safety risk. Not all work equipment needs formal inspection to ensure safety and, in many cases, a quick visual check before use will be sufficient. However, inspection is necessary for any equipment where significant risks to health and safety may arise from incorrect installation, reinstallation, deterioration or any other circumstances. The need for inspection and inspection frequencies should be determined through risk assessment.

The Operator's Manual and maintenance records for each piece of equipment are readily available to check on the need for oil and fi later changes, greasing, seal replacement and so on. Ensure maintenance records are checked regularly and performed as scheduled or needed.

What should the inspection of operating and cleaning equipment's cover

This will depend on type of work equipment, its use and the conditions to which it is exposed. This should be determined through risk assessment and take full account of

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any manufacturer's recommendations. The advice of others, such as trade associations and consultants, as well as other sources like published advice on health and safety, may also be helpful.

An inspection should concentrate on those safety-related parts which are necessary for the safe operation of work equipment and, in some cases; this may require testing or dismantling. However, not all safety-critical features on a particular item of work equipment may require inspection at the same intervals.

✤ An inspection can vary in its extent, as the following demonstrate:

Quick checks: before use (e.g. electric cable condition on hand-held power tools, functional testing of brakes, lights on mobile machinery) Weekly checks (e.g. presence of guarding, function of safety devices, tyre pressures, and the condition of windows, mirrors and CCTV on mobile plant) more extensive examinations, undertaken every few months or longer (e.g. general condition of a ladder, close examination of a safety harness, portable appliance testing). Records are not normally required to be made for the simplest pre-use checks.

The use of checklists can assist but these, and the records made, should be tailored to the particular type of work equipment to minimize the burden to what is strictly necessary for safety. Requiring too much detail too often can lead to inspection activity becoming burdensome with the risk of a superficial 'tick box' approach or even, in some cases, the inspection activity ceasing altogether. You only need to inspect what is necessary for safety.

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Self-Check -2	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

Test: I -Say true or false for the following question

- 1. The purpose of an inspection is to identify whether work equipment can be operated, adjusted and maintained safely. (3 point)
- 2. Records are not normally required to be made for the simplest pre-use checks. (3 point)

Test II. Short answer questions

- 1. Write the purpose of inspecting equipment condign? (3 point)
- 2. Who should carry out the inspection of work equipment? (3 point)
- 3. Why the advantage of checklists during inspection? (4 point)

Answer Sheet		
		Score =
		Rating:
Name:	Date:	

Note: Satisfactory rating ≥5 points Unsatisfactory - below 5 points

You can ask you teacher for the copy of the correct answers.

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Information Sheet- 3	Identifying	and	reporting	unacceptable	equipment
	condition				

3.1. Identifying unacceptable equipment condition

Unacceptable equipment identification is the process of identifying all hazard/dangerous in the workplace. There is no set method for grouping food process injury and illness hazards.

Always when you identify unacceptable equipment you must focus on:

- Equipment does not have any jagged parts, edges that can cause injury.
- Damage to equipment has not affected its operational safety.
- mop head looks presentable
- Buckets should be free of leaks, not smelly and have secure handles.
- Items to be used need to sufficient in number you need to have enough cleaning cloths, disposable gloves etc. to get the job done.
- Items must be appropriate for task many instances of damage or injury have resulted from trying to complete a cleaning job without the right tools
- Make sure all necessary attachments for vacuum cleaners, polishers and other equipment is taken with you before leaving the cleaning store to enable you to complete the intended task. This saves time and effort
- All electrically-powered and battery-powered items must be used strictly in accordance with manufacturer's instructions

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3.2. Reporting unacceptable equipment condition

If you notice something wrong, don't use the equipment. Report it to your supervisor immediately.

Some examples of things you might notice are:

- Frayed electrical cord
- Broken switch
- Cracked hose on the vacuum cleaner
- Screws coming loose or missing
- Rattles or strange noises in the equipment
- Smells, smoke or sparks coming from the equipment
- warning light or temperature gauge not working
- Broken accessories
- Broken handles
- Lack of power in an electric machine.

You may need to fill in a workplace report form. Or you might have to tell your supervisor about the problem, and they will fill out the form.

3.3. Fill in a Maintenance Request tag

You were using an electric floor scrubber in the staff canteen when you noticed that it was making funny rattling noises and there is a burning smell coming from the machine. Fill in the following Maintenance Request tag. Say what the problem was and what you did when it happened.

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Self-Check -3	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

Test 1. Choose the following questions

- 1. Which of the following is not damaged equipment? (4 point)
 - a. Frayed electrical cord
 - b. Broken switch
 - c. Cracked hose on the vacuum cleaner
 - d. Normal vacuum cleaner

Test-II Short answer questions

- Q1. How you to report damaged equipment? (3 point)
- Q2. For whom you report Unacceptable equipment in the workplace? (3 point)

Answer Sheet		Score =
		Rating:
Name:	Data:	

|--|

Date:

Note: Satisfactory rating ≥5 points Unsatisfactory - below 5 points

You can ask you teacher for the copy of the correct answers.

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Information Sheet- 4 Storing the cleaning equipment and chemicals

4.1. Storing the cleaning equipment and chemicals

At the end of your working shift, you will need to clean and replenish your cleaning chemicals and equipment. If you do this, you will save time for your next shift and keep your working area clean and well-maintained. All cleaning equipment and chemicals will have an allocated storage area. They must be returned to this area after use. Cleaning equipment cannot be left 'just anywhere' after it has been used:

- It may be stolen.
- It may be a hazard in terms of an obstruction or a tripping hazard.
- Others may need to use it and they will go to where it should be.
- Before equipment can be stored away, it should be checked to ensure it is clean and ready to be re-used.
- Never put away equipment that has not been cleaned and checked. If the inspection requires action to be taken, whether to repair or report, do it.

4.1.1. The location for storage

Where a cleaning storeroom exists, items will need to go back there. A property can have several small storerooms throughout the industry. Normally this is one per department or one per floor.

In some cases, certain items (especially larger electrically-powered) may be stored in another location because they are too big to go into the cleaning storeroom area. Adhere to the standard operating procedures where you work:

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✤ Before storing the equipment's follow the steps below:

1. Clean, Cool, Dry

Store your cleaning supplies in an area that is clean and free of debris. Make sure that there aren't any temperature extremes in the area where your cleaning supplies are stored. Another thing to make sure of is that the area is dry.

2. Original Containers

Keep cleaning supplies in their original containers. If you mix your own cleaners, make sure you use new clean bottles and label them to avoid a mix-up. Some cleaners can cause a lot of problems when they are mixed, so always follow manufacturers' instructions.

3. Safe Storage

Be sure to keep your cleaning supplies stored in places where your children and/or pets will not be able to get to them. Consider higher storage or locked storage options to protect small children and pets.

4.1.2. Importance of proper storage of tools and equipment

- It is an important factor for safety and health as well as good business.
- Improves appearance of production area and storage areas.
- Reduces overall tool cost through maintenance.
- This also ensures that tools are in good repair at hand.
- Teaches workers principles of (tool) accountability.

4.1.3. Pointers to follow in storing tools and equipment:

- Have a designated place for each kind of tools.
- Label the storage cabinet or place correctly for immediate finding.
- Store them near the point of use.
- Wash and dry properly before storing.
- Store knives properly when not in use with sharp edge down.
- Put frequently used items in conveniently accessible locations.
- Gather and secure electrical cords to prevent entanglement or snagging.

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- Cutting boards should be stored vertically to avoid moisture collection.
- Metal equipment can be stacked on one another after drying such as storage dishes and bowls.
- Make sure the areas where you are storing the equipment are clean, dry and not overcrowded.

4.2. Handling Cleaning Chemicals and Maintaining Storage Areas

Handling your cleaning chemicals safely and ensuring that standards are upheld is probably the most important aspect of proper cleaning chemical storage. All containers should be properly sealed and kept in either their original container or an appropriate container for their hazard class. Different chemicals should never be mixed, even if they are similar "types" of chemicals. Portable cleaning product containers should be returned to their designated place when not in use. In addition, the dates of all products should be known, and old, unused products should be safely disposed. Consider disposing of any open product that has not been used for one year and any sealed product that has not been used for two years.

Proper documentation, training, location, organization, handling, and maintenance of your cleaning chemical storage protocol will eliminate risks and ensure safety in your operations.

4.2.1. Check Labels for Storage chemicals Recommendations

When thinking about how to store cleaning supplies, it's important to remember that cleaning products are chemicals, and chemicals require some special handling. Therefore, it's crucial to read the storage and warning labels on your housekeeping products. Some household cleaners can cause dangerous reactions when mixed, meaning they shouldn't be stored with one another. Others can have hazardous reactions to extreme temperature fluctuations, which makes keeping them in cold garages or next to the hot water heater an absolute no-no. When it comes to dealing

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with chemicals, it's always better to be safe rather than sorry, so don't skip reading those labels.

4.3. Storing Cleaning Chemicals

Like all dangerous goods, cleaning chemicals need to store in a secure area according to their hazard class. Oxidizers, flammable and combustible substances need to be stored away from ignition sources like flames, heat, sunlight, static electricity or any work operations that could cause a spark. Many corrosives need to be separated from other incompatible substances to prevent toxic reactions and explosions.



Fig 3 Storing Cleaning Chemicals

Securing cleaning chemicals in a safety cabinet away from food preparation and service areas is a great way to reduce the risk of harm. This prevents unauthorized staffs (who are not trained) from accessing chemicals and using them incorrectly.

4.3.1. When storing cleaning chemicals in a cabinet make sure that ...

- Chemical containers are appropriate to the hazard class (refer to each chemical handling manual).
- The storage area is well ventilated
- Portable containers are be returned to the safety cabinet when not being used
- The cabinet is labeled with the correct Dangerous Goods signage

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Self-check 4	Written test

 Name
 ID
 Date

 Directions:
 Answer all the questions listed below. Examples may be necessary to aid

some explanations/answers.

Test I: Choose the best answer (4 point each questions)

- 1. The importance of proper storage of tools and equipment.
 - A. It is an important factor for safety and health as well as good business.
 - B. Improves appearance of production area and storage areas.
 - C. Reduces overall tool cost through maintenance.
 - D. This also ensures that tools are in good repair at hand
 - E. All of the above
- 2. Why you must be returned the equipment after use in storeroom?
 - A. It may be stolen.
 - B. It may be a hazard in terms of an obstruction or a tripping hazard.
 - C. Others may need to use it and they will go to where it should be.

D.All of the above

Test-II Fill in the blank space. (4 point each questions)

1. _____boards should be stored vertically to avoid moisture collection.

2. The storage area is well _____.

	Answer Sheet	
	Answer Oneet	Score =
		Rating:
Name:	Date:	

Note: Satisfactory rating ≥5 points

Unsatisfactory - below 5 points

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You can ask you teacher for the copy of the correct answers.

Information Sheet- 5	Disposing waste during cleaning process
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5.1. Disposing waste during cleaning process

5.1.1. Waste management

The collection, transportation, and disposal of garbage, sewage, and other waste products waste management encompasses management of all processes and resources for proper handling of waste materials, from maintenance of waste transport trucks and dumping facilities to compliance with health codes and environmental regulations.

Waste can be solid, liquid, or gaseous and each type has different methods of disposal and management.

Waste management deals with all types of waste, there are 5 types of waste: -

- Liquid Waste,
- Solid Rubbish,
- Organic Waste,
- Recyclable Rubbish,
- Hazardous Waste

5.1.2. Disposing waste

Waste disposal is any product, packaging or materials that are unwanted and intended to be disposed of and removed from a food area or premises. Garbage & waste areas provide the perfect environment for bacteria to breed and multiply, and production company produce a lot of waste every day!

5.1.3. Precautions when handling waste during cleaning

When handling waste those items are precautions for safety:

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- Always wear rubber gloves when handling rubbish.
- When picking up cigarette butts, empty drink containers or used tissues, you will be also picking up other peoples' germs. you should pick these up with long handled tongs or "nippers " never place hands in to any type of rubbish bin as there may be broken glass or razor blades on which you can cut yourself
- Always cover any cuts or abrasions on your hand with a waterproof dressing to prevent bacteria entering the wound
- Never carry rubbish bags that are too heavy use a trolley
- Never dispose of broken glass or syringes into plastic bags they may pierce the bag and cause harm to you and others
- Broken glass and crockery should be wrapped in thick newspaper before disposal. some workplaces may have a special bucket for holding broken glass and crockery
- Always wash your hands after handling rubbish.

5.1.4. 3R Rule for Waste Disposal

a. Reduce

With individual efforts, we can reduce the waste we produce in the first place. For example – materials must be bought from the market only if it is necessary for us.

b. Reuse

We can use the same thing again and again for different purposes. For example-

We can use plastic jars of jams, pickles, oil, etc. for storing things like salt, spices, sugar etc.

Old invitation cards can be reused to make envelopes.

c. Recycle

We can reform glass, plastic, metal and paper objects and converts them into useful substances. This process is recycling. For example,

We can recycle old newspapers, magazines, books, notebooks to make new paper or cardboard.

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Broken or discarded plastic items can be melted and remolded to form other useful substances.

5.1.5. Safe disposal of waste

- Disposal of hazardous waste
- Some things used in the production industry must be disposed of (got rid of) properly or they can damage the environment (the land, sea, water and air) and cause pollution. Some examples are:
- cleaning chemicals
- corrosive products such as oven and drain cleaners
- used cooking oils
- aerosol containers
- insecticides and pesticides such as mouse bait
- Flammable products.
- These substances must never be poured down a sink or a gully trap, put into storm Water drains or thrown out with normal rubbish.

5.1.6. Reduce use of chemicals

Many chemicals can't be put into normal rubbish bins or tipped down drains. Your workplace will have its own guidelines for disposing of toxic products safely. Best of all is if the workplace tries to use fewer and less harmful chemicals, such as:

- using microfiber cleaning products that don't need chemicals
- using cleaning products that are not toxic
- using spray bottles rather than aerosol sprays
- Using environmentally friendly methods to remove pests, such as mouse traps instead of bait, and insect screens on windows.

5.1.7. Dispose of garbage bin properly

- Place food scraps in proper containers.
- Do not allow containers to overflow. Empty them before they are completely full.
- Do not stack full refuse containers

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5.1.8. Methods Safe disposal of waste

Making sure all cleaning workers know exactly what the following "signal words" mean:

- **Caution:** the product should be used carefully but is relatively safe.
- Warning: the product is moderately toxic.
- **Danger:** the product is highly toxic and may cause permanent damage to skin and eyes. Here are some ground rules that can be useful to have while at work to ensure safe handling of chemicals: Things to remember when storing, labeling, handling and personal hygiene

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Self-Check 5	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

Test-I Say "True" or "False" for the following questions (3point each question)

- 1. Many chemicals can't be put into normal rubbish bins or tipped down drains.
- 2. We can reform glass, plastic, metal and paper objects and converts them into useful substances. This process is recycling.

Test- II Short Answer Questions

- Q1 what is waste? (3 point)
- Q2 list and define types of waste? (3point)
- Q3 how you manage the waste? (3point)
- Q4. How you reduce use of chemicals? (3point)

Answer Sheet

Score = _	
Rating: _	

Note: Satisfactory rating ≥5 points

Unsatisfactory - below 5 points

You can ask you teacher for the copy of the correct answers.

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Information Sheet- 6	Conducting	the	work	in	the	workplace	environmental
	guidelines.						

6.1. Conducting the work in the workplace environmental guidelines.

A. Clarification of work requirement

This describes the interpreting of schedules and plans, as well as a clear understanding of procedures to be undertaken and the targets to met.

When the requirements of the standards' met, employees understand the role their work

- plays, in maintaining quality output
- Motivated work force supports management in detecting, solving, correcting and preventing problems in the production area.
- Identification of the required resource
- Doing any work related with modern dairy production system we have to allocate the necessary resources which, proper and suitable to undertake the general work activities.

It is usually done within routines methods and procedures where some discretion and judgment is required in the selection of equipment and materials, organization of work, services, and actions to achieve outcomes within time and budgetary constraints should be properly allocated.

The resource, which allocated used to achieve the work. Some of the resources are, materials, tools and equipment, financials, labours, machinery, personal protective equipment, etc, have to be allocated so as to run the work properly

B. Develop Health and Safety Program

A good, sound health and safety program is an effective way to manage risks and productivity in your operation.

- Accidents are not only costly in human terms, but they can disrupt the flow of work and halt production.
- There are always hidden costs.

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• The actual injury to an employee is only the "tip of the iceberg". A good health and safety program should include the following components:

C. Written Health and Safety Policy

This simple statement shows your commitment to health and safety for all employees. It only needs to be a few sentences or a short paragraph.

D. Written Safety Rules

A set of basic rules for your operation as well as specialized safety rules for specific tasks, equipment or processes need to be developed.

The list should not be long and unmanageable. Rules should be simple and easy to understand and may need to translate into a worker's language.

The rules should be reviewed with all new employees, as well as posted for all employees to see

C. Safety Director/coordinator

You need to appoint someone to look after safety as a part of their job. You may also want to have a safety committee or safety representatives from both workers and management. This will keep safety out front all the time.

F. Employee Training

- Employees should receive periodic training as necessary to review safety procedures.
- New employees should receive safety training both before and on the job.
- Close -calls or accidents should trigger an immediate review of procedures and safety with employees.

G. Workplace Inspection

- System of workplace inspection should be set up to review hazards and practices in the workplace.
- Any time that there is a new process introduced or new machinery installed, an inspection should take place
- Employees should be encouraged to report hazards, close calls or anything out of the ordinary that could lead to

H. Injury Emergency Plan

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- There should be an emergency plan for any accident, fire, disaster or other unexpected event that may occur
- Employees should know what their responsibilities are during an emergency.
- Plan could include what to do during fires, power failures etc.

Documentation is important

- To keep records of training
- Safety meetings/concerns
- Corrective actions for accident investigations etc. as "Due Diligence".
- G. Managing West material from dairy products processing like
 - Effluent from
 - ✓ Tanker washing,
 - ✓ Cleaning milk splits
 - ✓ Cheese whey
 - Air emission gases
 - ✓ Milk powder dust
 - ✓ Refrigerant gases odor
 - Solid Waste
 - ✓ Damaged product
 - ✓ Out of date products

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Self-Check 6	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

I. Choose the best answer (each 2 point)

1. _____is the interpreting of schedules and plans, as well as a clear understanding of procedures to be undertaken and the targets to meet in working place.

D. Written Safety Rules

- A. Develop Health and Safety Program C. Written Health and Safety Policy
- B Clarification of work requirement

Part II Fill the black space

1. Write the purpose of documenting work place Injury emergency occurred (3%)

You can ask you teacher for the copy of the correct answers.

Answer Sheet		
		Score =
		Rating:
Name:	Date:	
Note: Satisfactory rating ≥5 points	Unsatisfact	ory - below 5 points

You can ask you teacher for the copy of the correct answers.

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Information Sheet- 7 Restoring the equipment to operating order

7.1 Restoring the equipment to operating order

Before equipment can be stored away, it should be checked to ensure it is clean and ready to be re-used. Never put away equipment that has not been cleaned and checked. If the inspection requires action to be taken, whether to repair or report, do it

Before we get started on the specifics, there are a number of steps you should take to ensure you have all the information you need to store cleaning products safely, especially if you have young children or pets in your home.

During restoring cleaning supplies you must focus:

- 1. Check the recommended storage instruction on the label.
- 2. Make sure you close the product properly after use.
- 3. Keep products on a shelf that a child or pet cannot reach, but you can.
- 4. Consider installing a child safety latch.
- 5. Keep all products in their original container so you can see the warning labels.
- 6. Put products in a secure box if you're keeping them in an open space, such as a garage.
- 7. Ensure the storage space is cool, clean and dry

When restore the cleaning equipment always you check:

- The vacuum cleaner should be checked daily after each use.
- Report any faults with electrical machines immediately and remove from service.
 Cleaners' trolley
- Always check any protective clothing and equipment you may have used.
- General cleaning equipment
- Part of your responsibilities after cleaning is to refill all the necessary chemical bottles.

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Self-check 7	Written test
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Name...... Date...... Date......

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test-1 Say True or False for the following questions

- 1. What should to do before equipment can be stored? 3points)
- 2. How you store cleaning equipment and chemicals? (3 point)
- 3. Where **Should** Cleaning Supplies be Stored?? (3points)
- 4. What is importance of restoring equipment according to operating orders? (2point)

Test -II Short Answer Questions (3points each questions)

- 1. All cleaning equipment and chemicals will have an allocated storage area.
- 2. Never put away equipment that has not been cleaned and checked

Answer Sheet		
		Score =
		Rating:
Name:	Date:	
<i>Note:</i> Satisfactory rating ≥5 points	Unsatisfactor	y - below 5 points

You can ask you teacher for the copy of the correct answers.

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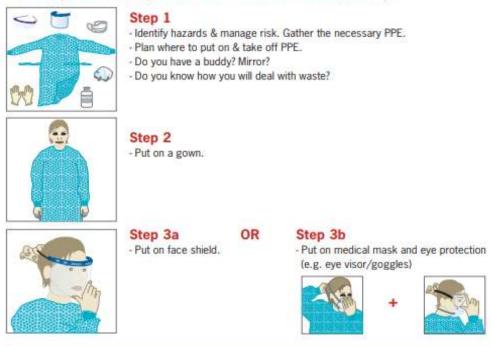


Operation Sheet- 1	using personal protective equipment (PPE)
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Procedures:

- Steps 1- Identify hazards & manage risk. Gather the necessary PPE
- Step 2- Put on a gown
- Step 3- Put on Face masks and eye protection
- Step 4 Put on gloves.
- Step 5.- Avoid contamination of self, others & the environment.
- Step 6 Perform hand hygiene.
- Step 7- Ready for Lab
- Step 8. . Enter Lab

How to put on PPE (when all PPE items are needed)



Note: If performing an aerosol-generating procedure (e.g. aspiration of respiratory tract, intubation, resuscitation, bronchoscopy, autopsy), a particulate respirator (e.g. US NIOSH-certified N95, EU FFP2, or equivalent respirator) should be used in combination with a face shield or an eye protection. Do user

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Operation sheet. 2 Cleaning equipment's techniques

Procedures:

Step 1.Wear PPE

Step 2. Clean and polish all cupboards and drawers, removing stains, dirt's

and finger marks

- Step 3.Clean the refrigerator and freezer, removing dirt's and finger marks.
- Step 4.Clean the cooker hobs and outside the oven.
- **Step 5.**clean the microwave inside and out, remove stains, and finger marks Where possible.
- **Step 6.**Clean all appliances like dishwasher, washing machine etc. Removing dirt's and finger marks
- Step 7.Clean and wash all tops and surfaces, polish where necessary
- Step 8. Wipe and cleans any equipment's
- **Step 9.**Clean and wash the sink shine taps and tiles around the sink
- **Step 10.**Clean and wipe the door handles, remove stains and finger marks Where possible
- Step 11. Empty bins, change bin bag and Wipe down bins
- Step 12. Sweep/vacuum or mop the floor





Operation Sheet-3	waste disposal

Procedure:

Step-1 collection- gathering the wastes

Step-2 transportation – moving away from home

Step- 3. Segregate the waste --in different garbage bin

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LAP TEST	Performance Test		
Name			ID
Date			
Time started:		Time finished:	

Instructions: Given necessary templates, tools and materials you are required to perform the following tasks within **1:30hours**. The project is expected from each student to do it.

Task-1 Cleaning equipment's

Task- Disposing waste

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Referance

Bartley, L.M., Donnelly, C.A., & Anderson, R.M. (2002). Review of foot-and-mouth disease
Haas, B., Ahl, R., Bohm, R., & Strauch, D. (1995). Inactivation of viruses in liquid manure.
Scientific and Technical Review of the Office International des Epizooties, 14(2), 435–445.
Influenza Virus Using Common Detergents and Chemicals. Avian Diseases, 52, 118–123. DOI: 10.1637/8055-070907-Reg.

Missouri Department of Agriculture. (2008). Cleaning and Disinfection: Standard Operating

Selected EPA-Registered Disinfectants. (2016). In *Environmental Protection Agency* . Retrieved

USDA. (2009). USDA Policies and Procedures on Bio hazardous Waste Decontamination, Management and Quality Controls at Laboratories and Technical Facilities. In *Departmental Regulation Number: 9630-001*. Retrieved from

http://agriculture.mo.gov/animals/pdf/animalag_guide4.pdf.

https://www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants. Retrieved from http://www.oie.int/doc/ged/D8958.PDF.

https://www.ocio.usda.gov/sites/default/files/docs/2012/DR9630-001_0.htm.

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