



Pool Maintenance Worker

QP Code: SPF/Q1117

Version: 2.0

NSQF Level: 3

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SPF/Q1117: Pool Maintenance Worker

Brief Job Description

Pool maintenance worker takes care of equipment and upkeep of the swimming pool facilities. The primary duties include cleaning, minor repairs, with installation of electrical wiring etc. The individual is also responsible for maintaining inventory of chemicals, parts, and supplies as needed.

Personal Attributes

Pool Maintenance Workers should be physically strong and fit to perform heavy manual tasks. They must be quick learners, attentive to details.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [SPF/N1153: Maintain pool water](#)
2. [SPF/N1154: Maintain pool systems and equipment](#)
3. [SPF/N1155: Perform regular and seasonal maintenance of the pool](#)
4. [SPF/N1156: Maintain health and safety standard at pool](#)
5. [SGJ/N1702: Optimize resource utilization at workplace](#)
6. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Sports
Sub-Sector	Sports Coaching and Fitness
Occupation	Sports Coaching
Country	India
NSQF Level	3
Credits	12
Aligned to NCO/ISCO/ISIC Code	NCO-2015/3423.0501

Minimum Educational Qualification & Experience	10th grade pass OR 8th grade pass with 2 Years of experience working in an aquatic environment OR 5th grade pass with 5 Years of experience working in an aquatic environment
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	NA
NSQC Approval Date	
Version	2.0

SPF/N1153: Maintain pool water

Description

This unit is about evaluating and maintaining pool water quality.

Scope

The scope covers the following :

- Evaluate pool water
- Treat pool water
- Maintain hygiene and sanitation

Elements and Performance Criteria

Evaluate pool water

To be competent, the user/individual on the job must be able to:

- PC1.** evaluate pool water quality maintenance and treatment needs according to regulatory framework
- PC2.** identify visual discolouration and contamination of water, if any, and document
- PC3.** identify unusual odour in the pool water
- PC4.** test pool water quality to identify chemical imbalance and contamination
- PC5.** conduct 3-way strips test to ascertain bromine, chlorine, pH (Potential of Hydrogen), and total alkalinity levels
- PC6.** conduct 3-way Active Oxygen strips test
- PC7.** conduct 6-way strips test to ascertain Total Alkalinity, pH, Cyanuric Acid, Free Chlorine, Total Chlorine (bromine) and Total Hardness
- PC8.** pool water microbiological tests
- PC9.** collect water samples for advance lab based tests

Treat pool water

To be competent, the user/individual on the job must be able to:

- PC10.** interpret results of tests and identify corrective measures
- PC11.** calculate the amount of chemicals required to correct chemical imbalances
- PC12.** select and use chemical dosing equipment for treatment of pool water according to manufacturer specifications
- PC13.** brush any visible algae and add an algicide
- PC14.** conduct 'shock treatment' to eliminate bacteria and organic contaminants (algae) building up in the nooks and crannies of the pool
- PC15.** assess effectiveness of pool water maintenance procedures against testing and treatment records
- PC16.** monitor and maintain pool water quality as per the standards
- PC17.** complete accurate documentation

Maintain hygiene and sanitation

To be competent, the user/individual on the job must be able to:

- PC18.** ensure personal hygiene
- PC19.** ensure equipment, pool area, common area, etc. are sanitized before and after the usage
- PC20.** guide others about hygiene and sanitation workplace requirements
- PC21.** report advanced hygiene and sanitation issues to appropriate authority

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** local government regulations
- KU2.** specific testing and treatment procedures of contaminated pool water
- KU3.** factors that affect pool water treatment needs in different contexts (condition of aquatic facility, location, size, nature of services provided, availability of resources, etc.)
- KU4.** characteristics of water quality (pH levels, alkalinity, chlorine and / or bromine, temperature, calcium hardness, disinfectant levels)
- KU5.** waterborne bacteria like pseudomonas, aeruginosa, etc. and how to eradicate them
- KU6.** safety requirements (chemicals, plant and equipment)
- KU7.** water treatment processes (superchlorination, shock dosing, dichlorination, ozonisation or use of sanitizer, pool water filtration and recirculation, backwashing)
- KU8.** features and sources of products for pool water quality maintenance
- KU9.** workplace lighting, machinery and other technical requirements in swimming pool
- KU10.** roles and responsibilities of all individuals/teams involved in the organizational relevant to the pool facility

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** read and understand all usage and safety manuals, labels on the chemicals/ equipment
- GS2.** develop pool safety guidelines/instructions
- GS3.** perform basic mathematics
- GS4.** convert metrics of measurements (feet, meter, gallons, litres, etc.)
- GS5.** update audit sheets

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Evaluate pool water</i>	18	36	-	-
PC1. evaluate pool water quality maintenance and treatment needs according to regulatory framework	2	4	-	-
PC2. identify visual discolouration and contamination of water, if any, and document	2	4	-	-
PC3. identify unusual odour in the pool water	2	4	-	-
PC4. test pool water quality to identify chemical imbalance and contamination	2	4	-	-
PC5. conduct 3-way strips test to ascertain bromine, chlorine, pH (Potential of Hydrogen), and total alkalinity levels	2	4	-	-
PC6. conduct 3-way Active Oxygen strips test	2	4	-	-
PC7. conduct 6-way strips test to ascertain Total Alkalinity, pH, Cyanuric Acid, Free Chlorine, Total Chlorine (bromine) and Total Hardness	2	4	-	-
PC8. pool water microbiological tests	2	4	-	-
PC9. collect water samples for advance lab based tests	2	4	-	-
<i>Treat pool water</i>	16	32	-	-
PC10. interpret results of tests and identify corrective measures	2	4	-	-
PC11. calculate the amount of chemicals required to correct chemical imbalances	2	4	-	-
PC12. select and use chemical dosing equipment for treatment of pool water according to manufacturer specifications	2	4	-	-
PC13. brush any visible algae and add an algaecide	2	4	-	-
PC14. conduct 'shock treatment' to eliminate bacteria and organic contaminants (algae) building up in the nooks and crannies of the pool	2	4	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC15. assess effectiveness of pool water maintenance procedures against testing and treatment records	2	4	-	-
PC16. monitor and maintain pool water quality as per the standards	2	4	-	-
PC17. complete accurate documentation	2	4	-	-
<i>Maintain hygiene and sanitation</i>	12	16	-	-
PC18. ensure personal hygiene	3	4	-	-
PC19. ensure equipment, pool area, common area, etc. are sanitized before and after the usage	3	4	-	-
PC20. guide others about hygiene and sanitation workplace requirements	3	4	-	-
PC21. report advanced hygiene and sanitation issues to appropriate authority	3	4	-	-
NOS Total	46	84	-	-

National Occupational Standards (NOS) Parameters

NOS Code	SPF/N1153
NOS Name	Maintain pool water
Sector	Sports
Sub-Sector	Sports Coaching and Fitness
Occupation	Sports Coaching
NSQF Level	3
Credits	1.5
Version	2.0
Next Review Date	NA

SPF/N1154: Maintain pool systems and equipment

Description

This unit is about maintaining swimming pool systems and equipment for safety, effective use and compliance to standard requirements.

Scope

The scope covers the following :

- Assess pool equipment
- Install, test pool circulation and filtration system and components
- Resolve faults in pool circulation and filtration systems

Elements and Performance Criteria

Assess safety requirements of the pool

To be competent, the user/individual on the job must be able to:

- PC1.** identify relevant Indian standards and regulatory, manufacturer and enterprise requirements related to circulation and filtration systems
- PC2.** identify hazards and assess risks in the work area in compliance to the relevant regulations and standard requirements
- PC3.** inspect the pool liner and foundation for any leaks, cracks, or other damage
- PC4.** check drains, lights, handrails, and ladders to make sure they are properly installed and safely in place
- PC5.** ensure there is no current leakages for electrical components involved in the pool's functioning like filters, pumps, heaters, etc.
- PC6.** inspect if pool ladder, diving board is properly secured and has no signs of damage or weakening
- PC7.** review work instructions and confirm installation or repair activities required

Install, test pool circulation and filtration system and components

To be competent, the user/individual on the job must be able to:

- PC8.** install circulation and filtration system or component in compliance to the relevant regulations and standard requirements
- PC9.** test and commission circulation, filtration system or components before use
- PC10.** reinstate work area and pool circulation and filtration system to operational condition, if required
- PC11.** document and report procedures undertaken, and system and/or component malfunctions, faults, wear or damage.
- PC12.** advise others of operational and maintenance requirements of the circulation and filtration system in line with manufacturer instructions and standards
- PC13.** advise appropriate organizational authority of non-compliance of pool and environs with safety and regulations

Resolve faults in pool circulation and filtration systems

To be competent, the user/individual on the job must be able to:

- PC14.** apply system knowledge and technical resources to analyze faults and defects efficiently and accurately
- PC15.** diagnose faults that are not covered fully by maintenance manual fault diagnosis guides
- PC16.** seek advice and repair work assistance from relevant personnel for activities outside scope of own expertise or authority
- PC17.** apply sustainability practices related to materials, equipment, and the surrounding environment during fault finding and repair or replacement activities
- PC18.** repair or replace components in compliance to the manufacturer's instructions, relevant regulations and standard requirements
- PC19.** test and commission circulation and filtration system in line with manufacturer instructions and standards
- PC20.** identify and document potential improvements to maintenance procedures
- PC21.** communicate improvements and changes to higher authorities

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** laws governing equipment and safety requirements at swimming pool
- KU2.** knowledge of operating and maintaining pool equipment such as water filtration equipment, sanitation equipment etc.
- KU3.** electronic machineries contributing to water contamination and other unsafe situation in a pool
- KU4.** types of circulation and filtration systems
- KU5.** purpose and operating principles of circulation and filtration systems
- KU6.** warranties and guarantees of pool equipment
- KU7.** factors leading to unsafe situations in pool and its surrounding
- KU8.** ways to promote compliance with safety rules and regulations

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** troubleshoot electrical equipment
- GS2.** escalate in case of non-compliance at workplace
- GS3.** report and record incidents and emergency situations
- GS4.** assemble and dismantle electrical components in pool
- GS5.** assess own scope of work and skill limitations

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Assess safety requirements of the pool</i>	15	34	-	-
PC1. identify relevant Indian standards and regulatory, manufacturer and enterprise requirements related to circulation and filtration systems	3	5	-	-
PC2. identify hazards and assess risks in the work area in compliance to the relevant regulations and standard requirements	2	5	-	-
PC3. inspect the pool liner and foundation for any leaks, cracks, or other damage	2	5	-	-
PC4. check drains, lights, handrails, and ladders to make sure they are properly installed and safely in place	2	5	-	-
PC5. ensure there is no current leakages for electrical components involved in the pool's functioning like filters, pumps, heaters, etc.	2	5	-	-
PC6. inspect if pool ladder, diving board is properly secured and has no signs of damage or weakening	2	5	-	-
PC7. review work instructions and confirm installation or repair activities required	2	4	-	-
<i>Install, test pool circulation and filtration system and components</i>	12	24	-	-
PC8. install circulation and filtration system or component in compliance to the relevant regulations and standard requirements	2	4	-	-
PC9. test and commission circulation, filtration system or components before use	2	4	-	-
PC10. reinstate work area and pool circulation and filtration system to operational condition, if required	2	4	-	-
PC11. document and report procedures undertaken, and system and/or component malfunctions, faults, wear or damage.	2	4	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. advise others of operational and maintenance requirements of the circulation and filtration system in line with manufacturer instructions and standards	2	4	-	-
PC13. advise appropriate organizational authority of non-compliance of pool and environs with safety and regulations	2	4	-	-
<i>Resolve faults in pool circulation and filtration systems</i>	16	40	-	-
PC14. apply system knowledge and technical resources to analyze faults and defects efficiently and accurately	2	5	-	-
PC15. diagnose faults that are not covered fully by maintenance manual fault diagnosis guides	2	5	-	-
PC16. seek advice and repair work assistance from relevant personnel for activities outside scope of own expertise or authority	2	5	-	-
PC17. apply sustainability practices related to materials, equipment, and the surrounding environment during fault finding and repair or replacement activities	2	5	-	-
PC18. repair or replace components in compliance to the manufacturer's instructions, relevant regulations and standard requirements	2	5	-	-
PC19. test and commission circulation and filtration system in line with manufacturer instructions and standards	2	5	-	-
PC20. identify and document potential improvements to maintenance procedures	2	5	-	-
PC21. communicate improvements and changes to higher authorities	2	5	-	-
NOS Total	43	98	-	-

National Occupational Standards (NOS) Parameters

NOS Code	SPF/N1154
NOS Name	Maintain pool systems and equipment
Sector	Sports
Sub-Sector	Sports Coaching and Fitness
Occupation	Sports Coaching
NSQF Level	3
Credits	3.5
Version	2.0
Next Review Date	NA

SPF/N1155: Perform regular and seasonal maintenance of the pool

Description

This unit is on performing seasonal maintenance of swimming pool.

Scope

The scope covers the following :

- Perform regular maintenance of the pool
- Perform winterizing process

Elements and Performance Criteria

Perform regular maintenance of the pool

To be competent, the user/individual on the job must be able to:

- PC1.** audit pool readiness using the checklist
- PC2.** use pool skimmer to remove floating leaves and debris
- PC3.** use vacuum cleaner to clean dirt and other loose particles from the bottom of the pool
- PC4.** operate pool filter
- PC5.** use a brush or pumice stone to scrub the tiles along the waterline
- PC6.** check your pool maintenance equipment regularly to ensure they are functional

Perform winterizing process

To be competent, the user/individual on the job must be able to:

- PC7.** conduct a final test of the alkalinity, pH, and calcium hardness of the water
- PC8.** balance the water with the proper chemicals
- PC9.** perform cleaning with brush or vacuum (or both)
- PC10.** ensure pool closing chemicals, such as a winterizing dose of algaecide and chlorine are added
- PC11.** enable the filter for 24-48 hours straight (manually remove any leftover debris)
- PC12.** clean and flush the chlorine feeder connections
- PC13.** perform pool draining , according to the manufacturer's instructions, ensuring the final water level is below the skimmers and inlet lines
- PC14.** drain all equipment: pump, filter, heater, chlorinator, etc. (store drain plugs in pump basket)
- PC15.** shut off pump and motor
- PC16.** ensure winter cover are not damaged before installing

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** daily and seasonal maintenance guidelines of swimming pool
- KU2.** types of pool maintenance equipment

- KU3.** operating process of pool filter, vacuum cleaners, etc.
- KU4.** effect of weather on swimming pools structure, pool equipment
- KU5.** pool closing and opening procedures

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** read pool equipment manuals
- GS2.** follow guidelines
- GS3.** fill checklist
- GS4.** draft reports
- GS5.** read and understand whether forecasts

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Perform regular maintenance of the pool</i>	12	30	-	-
PC1. audit pool readiness using the checklist	2	5	-	-
PC2. use pool skimmer to remove floating leaves and debris	2	5	-	-
PC3. use vacuum cleaner to clean dirt and other loose particles from the bottom of the pool	2	5	-	-
PC4. operate pool filter	2	5	-	-
PC5. use a brush or pumice stone to scrub the tiles along the waterline	2	5	-	-
PC6. check your pool maintenance equipment regularly to ensure they are functional	2	5	-	-
<i>Perform winterizing process</i>	18	40	-	-
PC7. conduct a final test of the alkalinity, pH, and calcium hardness of the water	2	4	-	-
PC8. balance the water with the proper chemicals	2	4	-	-
PC9. perform cleaning with brush or vacuum (or both)	2	4	-	-
PC10. ensure pool closing chemicals, such as a winterizing dose of algaecide and chlorine are added	2	4	-	-
PC11. enable the filter for 24-48 hours straight (manually remove any leftover debris)	2	4	-	-
PC12. clean and flush the chlorine feeder connections	2	4	-	-
PC13. perform pool draining , according to the manufacturer's instructions, ensuring the final water level is below the skimmers and inlet lines	2	4	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. drain all equipment: pump, filter, heater, chlorinator, etc. (store drain plugs in pump basket)	2	4	-	-
PC15. shut off pump and motor	1	4	-	-
PC16. ensure winter cover are not damaged before installing	1	4	-	-
NOS Total	30	70	-	-

National Occupational Standards (NOS) Parameters

NOS Code	SPF/N1155
NOS Name	Perform regular and seasonal maintenance of the pool
Sector	Sports
Sub-Sector	Sports Coaching and Fitness
Occupation	Sports Coaching
NSQF Level	3
Credits	2.5
Version	2.0
Next Review Date	NA

SPF/N1156: Maintain health and safety standard at pool

Description

This unit is on performing promoting and maintaining health and safety standard at pool

Scope

The scope covers the following :

- Maintain general pool safety
- Maintain safety with chemical use
- Perform basic first aid
- Work effectively with others

Elements and Performance Criteria

Maintain general pool safety

To be competent, the user/individual on the job must be able to:

- PC1.** ensure children or non- swimmers are not left unattended in the pool
- PC2.** ensure pool is not used during a thunderstorm (outdoor pool)
- PC3.** ensure there are no inappropriate electrical equipment in the pool or its surrounding
- PC4.** inspect and discard any sharp, glass objects in the pool or around the pool area
- PC5.** ensure pool covers are completely removed before use

Maintain safety with chemicals

To be competent, the user/individual on the job must be able to:

- PC6.** ensure chemicals are handled in a well ventilated area, preferably outdoors
- PC7.** check if chemicals are out of the reach of children
- PC8.** carry out handling of chemicals as per the safety instructional guidelines
- PC9.** ensure chemicals are stored in a cool, dry place, with lids put back on containers

Perform basic first aid and report the incident

To be competent, the user/individual on the job must be able to:

- PC10.** perform artificial resuscitation depending on the severity of the situation
- PC11.** perform basic first aid in case of any physical injury
- PC12.** monitor the condition of the casualty and plan course of action
- PC13.** record details of the incident and the action taken using appropriate forms, according to organisational policies and procedures
- PC14.** report details of incident to workplace supervisor as appropriate

Work effectively with others

To be competent, the user/individual on the job must be able to:

- PC15.** interact (verbal, non-verbal and written) in a gender, disability, and culturally sensitive manner
- PC16.** promote a safe and interactive environment
- PC17.** identify and report inappropriate behaviour (e.g. sexual harassment) to appropriate authority

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** types of chemicals and their effect on human health
- KU2.** handling of storage of cleaning agents
- KU3.** conflict resolution techniques
- KU4.** plan an appropriate response after assessing an emergency situation
- KU5.** types of common injuries in swimming pool
- KU6.** application of basic first aid
- KU7.** emergency response skills appropriate to the location and personal health care
- KU8.** importance of gender and its related concepts such as gender roles, gender equality, gender power relations etc.
- KU9.** POSH (Prevention of Sexual Harassment) Act
- KU10.** rights of pool users

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** apply verbal and non-verbal communication techniques
- GS2.** motivate others
- GS3.** apply first aid
- GS4.** work as a team

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain general pool safety</i>	10	20	-	-
PC1. ensure children or non- swimmers are not left unattended in the pool	2	4	-	-
PC2. ensure pool is not used during a thunderstorm (outdoor pool)	2	4	-	-
PC3. ensure there are no inappropriate electrical equipment in the pool or its surrounding	2	4	-	-
PC4. inspect and discard any sharp, glass objects in the pool or around the pool area	2	4	-	-
PC5. ensure pool covers are completely removed before use	2	4	-	-
<i>Maintain safety with chemicals</i>	6	16	-	-
PC6. ensure chemicals are handled in a well ventilated area, preferably outdoors	2	4	-	-
PC7. check if chemicals are out of the reach of children	2	4	-	-
PC8. carry out handling of chemicals as per the safety instructional guidelines	1	4	-	-
PC9. ensure chemicals are stored in a cool, dry place, with lids put back on containers	1	4	-	-
<i>Perform basic first aid and report the incident</i>	10	22	-	-
PC10. perform artificial resuscitation depending on the severity of the situation	2	5	-	-
PC11. perform basic first aid in case of any physical injury	2	5	-	-
PC12. monitor the condition of the casualty and plan course of action	2	4	-	-
PC13. record details of the incident and the action taken using appropriate forms, according to organisational policies and procedures	2	4	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. report details of incident to workplace supervisor as appropriate	2	4	-	-
<i>Work effectively with others</i>	4	12	-	-
PC15. interact (verbal, non-verbal and written) in a gender, disability, and culturally sensitive manner	1	4	-	-
PC16. promote a safe and interactive environment	1	4	-	-
PC17. identify and report inappropriate behaviour (e.g. sexual harassment) to appropriate authority	2	4	-	-
NOS Total	30	70	-	-

National Occupational Standards (NOS) Parameters

NOS Code	SPF/N1156
NOS Name	Maintain health and safety standard at pool
Sector	Sports
Sub-Sector	Sports Coaching and Fitness
Occupation	Sports Coaching
NSQF Level	3
Credits	2.5
Version	2.0
Next Review Date	NA

SGJ/N1702: Optimize resource utilization at workplace

Description

This unit is about adopting sustainable practices and optimizing use of resources, especially material, energy and waste, in day-to-day operations at work

Scope

The scope covers the following :

- Material conservation practices
- Energy/electricity conservation practices
- Effective waste management/recycling practices

Elements and Performance Criteria

Material conservation practices

To be competent, the user/individual on the job must be able to:

- PC1.** identify ways to optimize usage of material including water in various tasks/activities/processes
- PC2.** check for spills/leakages in various tasks/activities/processes
- PC3.** plug spills/leakages and escalate to appropriate authority if unable to rectify
- PC4.** carry out routine cleaning of tools, machines and equipment

Energy/electricity conservation practices

To be competent, the user/individual on the job must be able to:

- PC5.** identify ways to optimize usage of electricity/energy in various tasks/activities/processes
- PC6.** check if the equipment/machine is functioning normally before commencing work and rectify wherever required
- PC7.** report malfunctioning (fumes/sparks/emission/vibration/noise) and lapse in maintenance of equipment
- PC8.** ensure electrical equipment and appliances are properly connected and turned off when not in use

Effective waste management/recycling practices

To be competent, the user/individual on the job must be able to:

- PC9.** identify recyclable and non-recyclable, and hazardous waste generated
- PC10.** segregate waste into different categories
- PC11.** dispose non-recyclable waste appropriately
- PC12.** deposit recyclable and reusable material at identified location
- PC13.** follow processes specified for disposal of hazardous waste

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** potential hazards, risks and threats based on the nature of work
- KU2.** layout of the workstation and electrical and thermal equipment used
- KU3.** organizations procedures for minimizing waste
- KU4.** efficient and inefficient utilization of material and water
- KU5.** ways of efficiently managing material and water in the process
- KU6.** basics of electricity and prevalent energy efficient devices
- KU7.** ways to recognize common electrical problems
- KU8.** common practices of conserving electricity
- KU9.** usage of different colours of dustbins
- KU10.** categorization of waste into dry, wet, recyclable, non-recyclable and items of single-use plastics
- KU11.** waste management and methods of waste disposal
- KU12.** common sources of pollution and ways to minimize it

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** record data on waste disposal at workplace
- GS2.** complete statutory documents relevant to safety and hygiene
- GS3.** read Standard Operating Practices (SOP) documents
- GS4.** communicate with colleagues on the significance of greening of jobs
- GS5.** make timely decisions for efficient utilization of resources
- GS6.** complete tasks efficiently and accurately within stipulated time
- GS7.** work with supervisors/team members to carry out work related tasks
- GS8.** identify cause and effect of greening of jobs

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Material conservation practices</i>	4	8	-	-
PC1. identify ways to optimize usage of material including water in various tasks/activities/processes	1	2	-	-
PC2. check for spills/leakages in various tasks/activities/processes	1	2	-	-
PC3. plug spills/leakages and escalate to appropriate authority if unable to rectify	1	2	-	-
PC4. carry out routine cleaning of tools, machines and equipment	1	2	-	-
<i>Energy/electricity conservation practices</i>	4	8	-	-
PC5. identify ways to optimize usage of electricity/energy in various tasks/activities/processes	1	2	-	-
PC6. check if the equipment/machine is functioning normally before commencing work and rectify wherever required	1	2	-	-
PC7. report malfunctioning (fumes/sparks/emission/vibration/noise) and lapse in maintenance of equipment	1	2	-	-
PC8. ensure electrical equipment and appliances are properly connected and turned off when not in use	1	2	-	-
<i>Effective waste management/recycling practices</i>	5	10	-	-
PC9. identify recyclable and non-recyclable, and hazardous waste generated	1	2	-	-
PC10. segregate waste into different categories	1	2	-	-
PC11. dispose non-recyclable waste appropriately	1	2	-	-
PC12. deposit recyclable and reusable material at identified location	1	2	-	-
PC13. follow processes specified for disposal of hazardous waste	1	2	-	-
NOS Total	13	26	-	-

National Occupational Standards (NOS) Parameters

NOS Code	SGJ/N1702
NOS Name	Optimize resource utilization at workplace
Sector	Green Jobs
Sub-Sector	Other Green Jobs
Occupation	Resource Optimization
NSQF Level	3
Credits	1
Version	1.0
Last Reviewed Date	10/08/2022
Next Review Date	30/12/2024
NSQC Clearance Date	30/12/2021

DGT/VSQ/N0101: Employability Skills (30 Hours)

Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

Scope

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values - Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

Elements and Performance Criteria

Introduction to Employability Skills

To be competent, the user/individual on the job must be able to:

PC1. understand the significance of employability skills in meeting the job requirements

Constitutional values – Citizenship

To be competent, the user/individual on the job must be able to:

PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices

Becoming a Professional in the 21st Century

To be competent, the user/individual on the job must be able to:

PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.

Basic English Skills

To be competent, the user/individual on the job must be able to:

PC4. speak with others using some basic English phrases or sentences

Communication Skills

To be competent, the user/individual on the job must be able to:

PC5. follow good manners while communicating with others

PC6. work with others in a team

Diversity & Inclusion

To be competent, the user/individual on the job must be able to:

PC7. communicate and behave appropriately with all genders and PwD

PC8. report any issues related to sexual harassment

Financial and Legal Literacy

To be competent, the user/individual on the job must be able to:

PC9. use various financial products and services safely and securely

PC10. calculate income, expenses, savings etc.

PC11. approach the concerned authorities for any exploitation as per legal rights and laws

Essential Digital Skills

To be competent, the user/individual on the job must be able to:

PC12. operate digital devices and use its features and applications securely and safely

PC13. use internet and social media platforms securely and safely

Entrepreneurship

To be competent, the user/individual on the job must be able to:

PC14. identify and assess opportunities for potential business

PC15. identify sources for arranging money and associated financial and legal challenges

Customer Service

To be competent, the user/individual on the job must be able to:

PC16. identify different types of customers

PC17. identify customer needs and address them appropriately

PC18. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

To be competent, the user/individual on the job must be able to:

PC19. create a basic biodata

PC20. search for suitable jobs and apply

PC21. identify and register apprenticeship opportunities as per requirement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

KU4. Twenty first (21st) century skills and their importance

KU5. how to use basic spoken English language

KU6. Do and dont of effective communication

KU7. inclusivity and its importance

KU8. different types of disabilities and appropriate communication and behaviour towards PwD

KU9. different types of financial products and services

KU10. how to compute income and expenses

KU11. importance of maintaining safety and security in financial transactions

- KU12.** different legal rights and laws
- KU13.** how to operate digital devices and applications safely and securely
- KU14.** ways to identify business opportunities
- KU15.** types of customers and their needs
- KU16.** how to apply for a job and prepare for an interview
- KU17.** apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** communicate effectively using appropriate language
- GS2.** behave politely and appropriately with all
- GS3.** perform basic calculations
- GS4.** solve problems effectively
- GS5.** be careful and attentive at work
- GS6.** use time effectively
- GS7.** maintain hygiene and sanitisation to avoid infection

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
<i>Constitutional values – Citizenship</i>	1	1	-	-
PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	1	3	-	-
PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC4. speak with others using some basic English phrases or sentences	-	-	-	-
<i>Communication Skills</i>	1	1	-	-
PC5. follow good manners while communicating with others	-	-	-	-
PC6. work with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	1	-	-
PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC8. report any issues related to sexual harassment	-	-	-	-
<i>Financial and Legal Literacy</i>	3	4	-	-
PC9. use various financial products and services safely and securely	-	-	-	-
PC10. calculate income, expenses, savings etc.	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
<i>Essential Digital Skills</i>	4	6	-	-
PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-
PC13. use internet and social media platforms securely and safely	-	-	-	-
<i>Entrepreneurship</i>	3	5	-	-
PC14. identify and assess opportunities for potential business	-	-	-	-
PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
<i>Customer Service</i>	2	2	-	-
PC16. identify different types of customers	-	-	-	-
PC17. identify customer needs and address them appropriately	-	-	-	-
PC18. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	1	3	-	-
PC19. create a basic biodata	-	-	-	-
PC20. search for suitable jobs and apply	-	-	-	-
PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
NOS Total	20	30	-	-

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0101
NOS Name	Employability Skills (30 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	17/11/2022
Next Review Date	17/11/2025
NSQC Clearance Date	17/11/2022

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down the proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on the knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for the theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
6. To pass the Qualification Pack assessment, every trainee should score a minimum of 50% aggregate marks to successfully clear the assessment.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Minimum Aggregate Passing % at QP Level : 50

(**Please note:** Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
SPF/N1153.Maintain pool water	46	84	-	-	130	23
SPF/N1154.Maintain pool systems and equipment	43	98	-	-	141	25
SPF/N1155.Perform regular and seasonal maintenance of the pool	30	70	-	-	100	18
SPF/N1156.Maintain health and safety standard at pool	30	70	-	-	100	18
SGJ/N1702.Optimize resource utilization at workplace	13	26	-	-	39	7
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	-	-	50	9
Total	182	378	-	-	560	100

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.
Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.

Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.