









# Aquarium Technician

QP Code: AGR/Q5108

Version: 3.0

NSQF Level: 4

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# AGR/Q5108: Aquarium Technician

# **Brief Job Description**

An Aquarium Technician is responsible for providing service for maintenance of aquarium and accessories and fish keeping which is aesthetically pleasing and sound for the fish and customers.

#### **Personal Attributes**

An Aquarium Technician must have the ability to handle ornamental fish and prioritize tasks. The individual must be physically fit to work for long durations. The person must have attention to detail, problem-solving skills with the ability to work collaboratively with others to achieve the work objectives. In addition, he/she must possess aesthetic sense.

# **Applicable National Occupational Standards (NOS)**

#### **Compulsory NOS:**

- 1. AGR/N5115: Set up and manage marine aquarium
- 2. <u>AGR/N5116</u>: Set up and manage freshwater aquarium (including planted aquarium and garden ponds)
- 3. AGR/N5117: Ensure safety, hygiene and sanitation practices in aquascaping
- 4. DGT/VSQ/N0103: Employability Skills (90 Hours)

#### **Qualification Pack (QP) Parameters**

Sector	Agriculture
Sub-Sector	Fisheries
Occupation	Assistance (Fisheries)
Country	India
NSQF Level	4
Credits	13
Aligned to NCO/ISCO/ISIC Code	NCO-2015/NIL









Minimum Educational Qualification & Experience	12th grade Pass OR Completed 2nd year of the 3-year diploma after 10 (pursuing regular diploma) OR 10th grade pass (plus 2-year NTC) OR 10th grade pass (plus 1-year NTC plus 1 year NAC) OR 8th grade pass (plus 1-year NTC plus 1 year NAC) OR 8th grade pass with 2 year NTC plus 1 year NAC plus 1 year CITS OR 10th grade pass and pursuing continuous schooling OR 10th grade pass with 2 Years of experience relevant experience OR Previous relevant Qualification of NSQF Level (Level 3.0 with minimum education as 8th Grade pass) with 3 Years of experience relevant experience OR Previous relevant Qualification of NSQF Level (Level 3.5 with 1.5- year relevant experience)
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	30/04/2025
NSQC Approval Date	24/02/2022
Version	3.0
Reference code on NQR	QG-04-AG-00273-2023-V1.1-ASCI
NQR Version	1.1









# AGR/N5115: Set up and manage marine aquarium

# Description

This OS unit is about setting up, managing and maintaining marine aquariums

#### Scope

The scope covers the following :

- Set up and maintain marine aquarium
- Ensure proper health management of fish in marine aquarium

#### **Elements and Performance Criteria**

#### Set up and maintain marine aquarium

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

- **PC1.** arrange the necessary resources to set up the marine aquarium such as aquarium tank, air pump, protein skimmer, heater and thermometer, sand/substrate, live rocks, equipment, artificial sea water, marine organisms, filter system, powerhead etc.
- **PC2.** Identify commercially important marine ornamental fishes and invertebrates kept in a marine aquarium set up
- **PC3.** sanitise and acclimatise the relevant items before setting up in the aquarium to avoid contamination
- **PC4.** set up the aquarium structure by assembling and installing the required components such as reef, rocks, pebbles, air inlets, lighting, filtration etc.
- PC5. ensure appropriate water quality required for marine organisms for aquarium keeping
- **PC6.** ensure provision of nutritionally balanced fish feed, optimal feeding method and frequency
- PC7. follow the national laws on keeping of marine organisms in captivity
- PC8. prepare the artificial sea water using synthetic salts
- **PC9.** setup and maintain different equipment including protein skimmer, UV sterlisers, filters, lights etc, appropriately
- **PC10.** set up various types of marine aquarium viz; only fish tank, FOWLR aquarium or a reef tank
- **PC11.** decide and introduce the compatible species of marine organism in aquarium
- PC12. stock the selected varieties of aquarium fish maintaining the recommended stocking density
- PC13. mature appropriately an aquarium tank before introduction of fishes
- PC14. maintain the reef system in a sustainable condition
- **PC15.** monitor the reef system for any undesirable growth, parasites or any substance that may threaten the balance of the reef system
- **PC16.** check the aquarium water for important parameters viz, salinity, pH, ammonia, nitrate, nitrite etc.
- PC17. operate and set up various timers for operating lighting, filtration pumps and heating if any
- PC18. introduce organisms that help clean the reef system by removing ecto-parasites









- **PC19.** monitor and identify symptoms of common illnesses and aliments and take timely corrective action
- PC20. carry out short term and long-term maintenance activities for a marine aquarium.
- PC21. maintain successfully all types of marine aquarium

Ensure proper health management of fish in marine aquarium

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

- **PC22.** monitor and identify symptoms of common ilnesses and aliments and take timely corrective action
- **PC23.** separate the diseased fish from the healthy fish and put them in a hospital tank, in case of disease outbreak
- PC24. diagnose the problem/disease and treat appropriately
- PC25. monitor the condition of fish in the hospital tank for signs of improvement

# Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** industry standards, process standards and procedures followed by the ornamental fishing industry
- KU2. job responsibilities/duties and standard operating procedures
- **KU3.** internal processes such as quality management and key contact points for query resolution
- **KU4.** various resources required to set up a marine aquarium such as aquarium tank, air pump, protein skimmer, heater and thermometer, etc.
- **KU5.** the importance and process of sanitising the aquarium and the relevant components before
  assembling
- **KU6.** the process of setting up a marine aquarium
- KU7. routine maintenance and care required for the running of a marine aquarium
- **KU8.** the process of acclimatising the fish and reef before being placed in the aquarium
- KU9. diseases and other harmful growth within the system
- **KU10.** various parameters of the water PH, ammonia, nitrites and salinity with optimum levels
- **KU11.** safety and hygiene precautions to be taken during all stages
- **KU12.** roles of various organisms of the reef system that balance the ecosystem of a marine aquarium
- KU13. various gadget employed in marine aquarium keeping
- **KU14.** how to install timers to automate the functioning of lights, filtration pumps and heating system
- **KU15.** the recommended quantity of treated water to be maintained in an aquarium for varieties of aquarium fish
- KU16. recommended stocking density to be maintained for varieties of aquarium fish
- **KU17.** nutrition and feed requirements of different types of aquarium fish and their recommended feeding schedule
- **KU18.** the importance of maintaining the recommended percentage and frequency of water exchange in the aquarium









- **KU19.** the benefits and process of stocking organisms in the aquarium that consume ectoparasites and feed residues
- **KU20.** the process of sampling aquarium water to check the pH, ammonia, nitrite and salinity levels
- **KU21.** appropriate measures to be taken to prevent the growth of parasites and undesirable growth in the aquarium
- **KU22.** the importance of using protein skimmers and filtration equipment to ensure the removal of waste matter and optimum water quality in the aquarium
- **KU23.** various health and disease management practices for fish such as identification of the symptoms of stress and common diseases, quarantining and treating the diseased or dying fish, monitoring the quarantined fish for signs of improvement, etc.

# **Generic Skills (GS)**

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

- **GS1.** read guidelines on ready to use organic components of a marine aquarium, its acclimatization period etc.
- GS2. read the prescribed water quality parameters and any information related to aquascaping
- GS3. keep a log of important events
- GS4. maintain a checklist with a timeline for setting up and running of a marine aquarium
- **GS5.** effectively communicate with customers and brief them on the routine maintenance of the aquarium
- **GS6.** observe critical parameters on day to day basis and take informed decisions, and respond appropriately situations
- **GS7.** plan and organize the day's monitoring and maintenance work
- **GS8.** plan and prioritize the work based on the evaluation of tasks
- GS9. plan to utilize time and equipment effectively
- **GS10.** understand customer preferences on aquascaping design, their priorities, limitations and respond appropriately to their needs
- **GS11.** detect problems like infections, contamination, cannibalism, toxic waste build up, well in advance and take timely, corrective action
- **GS12.** analyze species survival /mortality data for future improvements in aquascaping
- **GS13.** apply domain information about aquascaping, technical knowledge about various species introduced, and their sourcing
- GS14. use common sense and make judgments on day to day basis
- GS15. use reasoning skills to identify and resolve basic problems
- **GS16.** use learned intuition to detect any potential problems which could arise during the process of aquascaping







# **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Set up and maintain marine aquarium	22	30	-	24
<b>PC1.</b> arrange the necessary resources to set up the marine aquarium such as aquarium tank, air pump, protein skimmer, heater and thermometer, sand/substrate, live rocks, equipment, artificial sea water, marine organisms, filter system, powerhead etc.	-	-	-	-
<b>PC2.</b> Identify commercially important marine ornamental fishes and invertebrates kept in a marine aquarium set up	-	-	-	-
<b>PC3.</b> sanitise and acclimatise the relevant items before setting up in the aquarium to avoid contamination	-	-	-	-
<b>PC4.</b> set up the aquarium structure by assembling and installing the required components such as reef, rocks, pebbles, air inlets, lighting, filtration etc.	-	-	-	-
<b>PC5.</b> ensure appropriate water quality required for marine organisms for aquarium keeping	-	-	-	-
<b>PC6.</b> ensure provision of nutritionally balanced fish feed, optimal feeding method and frequency	-	-	_	-
<b>PC7.</b> follow the national laws on keeping of marine organisms in captivity	-	-	_	-
<b>PC8.</b> prepare the artificial sea water using synthetic salts	-	-	-	-
<b>PC9.</b> setup and maintain different equipment including protein skimmer, UV sterlisers, filters, lights etc, appropriately	-	-	-	-
<b>PC10.</b> set up various types of marine aquarium viz; only fish tank, FOWLR aquarium or a reef tank	-	-	-	-
<b>PC11.</b> decide and introduce the compatible species of marine organism in aquarium	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> stock the selected varieties of aquarium fish maintaining the recommended stocking density	-	-	-	-
<b>PC13.</b> mature appropriately an aquarium tank before introduction of fishes	-	-	-	-
<b>PC14.</b> maintain the reef system in a sustainable condition	-	-	-	-
<b>PC15.</b> monitor the reef system for any undesirable growth, parasites or any substance that may threaten the balance of the reef system	-	-	-	_
<b>PC16.</b> check the aquarium water for important parameters viz, salinity, pH, ammonia, nitrate, nitrite etc.	-	-	-	-
<b>PC17.</b> operate and set up various timers for operating lighting, filtration pumps and heating if any	-	-	-	-
<b>PC18.</b> introduce organisms that help clean the reef system by removing ecto-parasites	-	-	-	-
<b>PC19.</b> monitor and identify symptoms of common illnesses and aliments and take timely corrective action	-	-	-	-
<b>PC20.</b> carry out short term and long-term maintenance activities for a marine aquarium.	-	-	-	-
<b>PC21.</b> maintain successfully all types of marine aquarium	-	-	-	-
Ensure proper health management of fish in marine aquarium	8	10	-	6
<b>PC22.</b> monitor and identify symptoms of common ilnesses and aliments and take timely corrective action	-	-	-	-
<b>PC23.</b> separate the diseased fish from the healthy fish and put them in a hospital tank, in case of disease outbreak	-	-	-	-
<b>PC24.</b> diagnose the problem/disease and treat appropriately	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC25.</b> monitor the condition of fish in the hospital tank for signs of improvement	-	-	-	-
NOS Total	30	40	-	30









# National Occupational Standards (NOS) Parameters

NOS Code	AGR/N5115
NOS Name	Set up and manage marine aquarium
Sector	Agriculture
Sub-Sector	Fisheries
Occupation	Assistance (Fisheries)
NSQF Level	4
Credits	3
Version	2.0
Last Reviewed Date	24/02/2022
Next Review Date	24/02/2025
NSQC Clearance Date	24/02/2022







# AGR/N5116: Set up and manage freshwater aquarium (including planted aquarium and garden ponds)

# Description

This OS unit is about setting up, managing and maintaining freshwater aquariums including planted aquarium and garden ponds

# Scope

The scope covers the following :

- Set up and maintain freshwater aquarium, planted aquarium and garden ponds
- Ensure proper health management of fish in freshwater aquarium, planted tank and garden pond

# **Elements and Performance Criteria**

#### Set up and maintain freshwater aquarium, planted aquarium and garden ponds

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

- PC1. source all the components required for the aquarium as per the specifications
- PC2. clean each piece of equipment, acclimatize and prepare it for immersion into the aquarium
- PC3. set up the complete aquarium structure with air inlets, lighting, filtration system
- PC4. identify different types of commercially important freshwater ornamental fishes.
- PC5. identify the prohibited varieties of freshwater ornamental fishes that cannot be traded
- **PC6.** provide nutritionally balanced feed to fishes, decide the type of feed and feeding frequency
- PC7. follow the method, frequency and percentage of water exchange within aquarium,
- **PC8.** fabricate an aquarium tank and select compatible species for a community tank.
- PC9. apply appropriate methods of water quality testing and monitoring for a freshwater aquarium
- **PC10.** Install suitable type of water quality monitoring, life support systems and decorative items in aquarium.
- PC11. install and maintain successfully a freshwater aquarium.
- PC12. ensure proper working of pick-up filters for removing waste matter
- **PC13.** monitor for any undesirable growth, parasites or anything that may threaten the balance of the aquarium
- **PC14.** use water conditioners to remove traces of chlorine etc. from the water to be used in the aquariums
- PC15. operate and set up various timers for operating lighting and heating systems, if any
- PC16. ensure filtration is being done on a continuous basis
- **PC17.** fill in the aquarium with the recommended quantity of treated water for the selected species
- PC18. stock the selected varieties of aquarium fish maintaining the recommended stocking density
- **PC19.** acclimatise the fish before stocking in the aquarium and take appropriate measures to protect them from new tank syndrome
- PC20. introduce organisms that will help clean the aquarium of waste residues









- **PC21.** monitor and identify symptoms of common illnesses and aliments and take timely corrective action
- **PC22.** quarantine the newly purchased fish to aquarium conditions before it is introduced to aquarium
- PC23. identify different types of aquatic plants used in a planted aquarium
- **PC24.** select suitable substrate for a planted tank and ensure supply of nutrients for the growth of plants
- **PC25.** select compatible species of fishes for a planted tank and successfully maintain a planted aquarium
- PC26. plan, design, construct and maintain a garden pond
- **PC27.** introduce suitable varieties of plants, fish and other animals for decorating and keeping in a garden pond

Ensure proper health management of fish in freshwater aquarium, planted tank and garden pond

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

- **PC28.** identify the symptoms of stress and common diseases among the aquarium fish
- PC29. check for diseased or dying fish
- PC30. identify and quarantine the diseased or dying fish
- **PC31.** separate the diseased fish from the healthy fish and put them in a hospital tank , in case of disease outbreak
- **PC32.** diagnose the problem/disease and treat appropriately
- **PC33.** monitor the quarantined fish for signs of improvement and restock them with the aquarium fish once cured

# Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** industry standards, process standards and procedures followed by the ornamental fishing industry
- KU2. job responsibilities/duties and standard operating procedures
- KU3. internal processes like quality management and key contact points for query resolution
- **KU4.** process of cleaning prior to introducing various aquascaping artefacts, natural and synthetic, of the proposed aquarium
- **KU5.** process of routine maintenance and care required for the running of a fresh water aquarium
- **KU6.** various resources required to set up a freshwater aquarium as per finalized specification and their use
- KU7. benefit of sanitization of aquarium and their relevant components before assembling
- **KU8.** compatibility of fish species
- **KU9.** acclimatization of the fish and reef before placing in the aquarium
- KU10. process of setting up a freshwater aquarium
- **KU11.** how to install timers to automate the functioning of lights, filtration pumps and heating system









- **KU12.** process of aquarium water treatment and maintenance of water as per varieties of aquarium fish
- KU13. recommended stocking density to be maintained for varieties of aquarium fish
- **KU14.** nutrition and feed requirements of different types of aquarium fish and their recommended feeding schedule
- **KU15.** the benefits and process of stocking organisms in the aquarium that consume ectoparasites and feed residues
- KU16. managing harmful growth within the aquarium system
- KU17. various health and disease management practices for fish in aquarium
- **KU18.** safety and hygiene precautions to be taken during setup and maintenance of aquarium
- **KU19.** different types of aquatic plants used in a planted aquarium
- **KU20.** suitable substrate for a planted tank and nutrients for the growth of plants
- **KU21.** how to plan, design, construct and maintain a garden pond
- **KU22.** introduction of suitable varieties of plants, fish and other animals for decorating and keeping in a garden pond

# **Generic Skills (GS)**

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

- GS1. read guidelines on ready to use artefacts of a fresh water aquarium, and its cleaning
- **GS2.** read the prescribed water quality parameters and information related to aquascaping
- **GS3.** maintain a log of important events
- **GS4.** maintain a check list of things to do with a timeline for setting up and running of a freshwater aquarium
- **GS5.** effectively communicate with customers to understand their needs and explain the maintenance and upkeep of the aquarium
- **GS6.** observe critical parameters on day to day basis and take informed decisions, and respond appropriately to the situation
- **GS7.** plan and organize the day's monitoring and maintenance work
- **GS8.** plan and prioritize the work based on the evaluation of tasks
- GS9. plan to utilize time and equipments effectively
- **GS10.** organize all process/ equipment manuals so as to access information easily
- **GS11.** understand customer requirements, their priorities, and respond appropriately to their needs
- **GS12.** detect problems such as contamination, infections etc. well in advance and take timely, corrective action
- GS13. analyse mortality/survival data for future improvements
- **GS14.** apply domain information about aquascaping, technical knowledge about ornamental fish species, its life cycle and rearing
- **GS15.** use common sense and make judgments on day to day basis
- **GS16.** use reasoning skills to identify and resolve basic problems
- **GS17.** use learned intuition to detect any potential problems which could arise during the processes







# **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Set up and maintain freshwater aquarium, planted aquarium and garden ponds	22	30	-	24
<b>PC1.</b> source all the components required for the aquarium as per the specifications	-	-	-	-
<b>PC2.</b> clean each piece of equipment, acclimatize and prepare it for immersion into the aquarium	-	-	-	-
<b>PC3.</b> set up the complete aquarium structure with air inlets, lighting, filtration system	-	-	_	-
<b>PC4.</b> identify different types of commercially important freshwater ornamental fishes.	-	-	-	-
<b>PC5.</b> identify the prohibited varieties of freshwater ornamental fishes that cannot be traded	-	-	_	-
<b>PC6.</b> provide nutritionally balanced feed to fishes, decide the type of feed and feeding frequency	-	-	-	-
<b>PC7.</b> follow the method, frequency and percentage of water exchange within aquarium,	-	-	-	-
<b>PC8.</b> fabricate an aquarium tank and select compatible species for a community tank.	-	-	-	-
<b>PC9.</b> apply appropriate methods of water quality testing and monitoring for a freshwater aquarium	-	-	-	-
<b>PC10.</b> Install suitable type of water quality monitoring, life support systems and decorative items in aquarium.	-	-	_	-
<b>PC11.</b> install and maintain successfully a freshwater aquarium.	-	-	-	-
<b>PC12.</b> ensure proper working of pick-up filters for removing waste matter	-	-	_	-
<b>PC13.</b> monitor for any undesirable growth, parasites or anything that may threaten the balance of the aquarium	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC14.</b> use water conditioners to remove traces of chlorine etc. from the water to be used in the aquariums	-	-	-	_
<b>PC15.</b> operate and set up various timers for operating lighting and heating systems, if any	-	-	-	-
<b>PC16.</b> ensure filtration is being done on a continuous basis	-	-	-	-
<b>PC17.</b> fill in the aquarium with the recommended quantity of treated water for the selected species	-	-	-	-
<b>PC18.</b> stock the selected varieties of aquarium fish maintaining the recommended stocking density	-	-	-	-
<b>PC19.</b> acclimatise the fish before stocking in the aquarium and take appropriate measures to protect them from new tank syndrome	-	-	-	-
<b>PC20.</b> introduce organisms that will help clean the aquarium of waste residues	-	-	_	-
<b>PC21.</b> monitor and identify symptoms of common illnesses and aliments and take timely corrective action	-	-	-	_
<b>PC22.</b> quarantine the newly purchased fish to aquarium conditions before it is introduced to aquarium	-	-	-	-
<b>PC23.</b> identify different types of aquatic plants used in a planted aquarium	-	-	-	-
<b>PC24.</b> select suitable substrate for a planted tank and ensure supply of nutrients for the growth of plants	-	-	_	_
<b>PC25.</b> select compatible species of fishes for a planted tank and successfully maintain a planted aquarium	-	-	_	_
<b>PC26.</b> plan, design, construct and maintain a garden pond	-	-	_	-
<b>PC27.</b> introduce suitable varieties of plants, fish and other animals for decorating and keeping in a garden pond	-	-	_	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Ensure proper health management of fish in freshwater aquarium, planted tank and garden pond	8	10	-	6
<b>PC28.</b> identify the symptoms of stress and common diseases among the aquarium fish	-	-	-	-
PC29. check for diseased or dying fish	-	-	-	-
<b>PC30.</b> identify and quarantine the diseased or dying fish	-	-	-	-
<b>PC31.</b> separate the diseased fish from the healthy fish and put them in a hospital tank , in case of disease outbreak	-	-	-	-
<b>PC32.</b> diagnose the problem/disease and treat appropriately	-	-	-	-
<b>PC33.</b> monitor the quarantined fish for signs of improvement and restock them with the aquarium fish once cured	-	-	-	-
NOS Total	30	40	-	30









# National Occupational Standards (NOS) Parameters

NOS Code	AGR/N5116
NOS Name	Set up and manage freshwater aquarium (including planted aquarium and garden ponds)
Sector	Agriculture
Sub-Sector	Fisheries
Occupation	Assistance (Fisheries)
NSQF Level	4
Credits	3
Version	2.0
Last Reviewed Date	24/02/2022
Next Review Date	24/02/2025
NSQC Clearance Date	24/02/2022







# AGR/N5117: Ensure safety, hygiene and sanitation practices in aquascaping

# Description

This OS unit is about following biosecurity protocols, safety, hygiene and sanitation practices in marine and freshwater aquariums, including garden ponds.

# Scope

The scope covers the following :

- Follow biosecurity protocols and ensure safety, hygiene in marine and freshwater aquariums (including garden ponds)
- Maintain personal hygiene and safety

# **Elements and Performance Criteria**

# Follow biosecurity protocols and ensure safety, hygiene in marine and freshwater aquariums(including garden ponds)

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

- **PC1.** carry out procedures in place to protect ornamental aquatic organisms (fish, invertebrate or plant) from contracting, carrying or spreading disease
- **PC2.** identify the associated hazards by pathogens that might arrive or get transferred in the system and their appropriate method of management or elimination and critical control points associated with them
- **PC3.** plan and set up the structure of aquarium system and its electrical connections keeping in mind guidelines of safety
- **PC4.** ensure each artefact planned for the marine or freshwater aquarium system is acclimatized and cured to specifications that support and sustain the ecosystem
- **PC5.** ensure the proper introduction of artefacts, at appropriate times so the ecosystem gradually acclimatizes to each of them
- **PC6.** conduct tests to check water quality ph, ammonium, nitrite levels and salinity
- **PC7.** exchange appropriate percentages of the water at regular intervals
- PC8. ensure routine cleaning and inspections of the entire system
- **PC9.** Check regularly the signs to look for that might indicate a disease issue viz. Loss of appetite, and loss of body weight, Skin ulcers and eroded fins, Loss of bright colours, Bloated belly, Loss of buoyancy control, Abnormal swimming behaviour, Bulged out eyes etc.
- PC10. monitor the accretion of waste at the bottom of tank and establish a routine to remove them
- **PC11.** ensure all filters and fittings camouflaged by artefacts are routinely checked and kept in good working order
- **PC12.** establish a feeding routine and choice of feed for all types of aquatic life in the aquarium
- **PC13.** ensure the introduction of beneficial organisms that help maintain the sustainability of the aquarium
- PC14. quarantine and condition any new fish before introducing in tanks for better biosecurity









- **PC15.** ensure maturation of the tanks before introducing new fishes to prevent new tanks syndrome
- **PC16.** follow the recommended practices to protect the aquarium from different types of threats , contamination and diseases
- **PC17.** apply the necessary disinfectants or preventive treatment in the aquarium to prevent disease outbreak and the growth of harmful organisms
- **PC18.** sample the water quality and fishes grown in aquarium regularly to identify the signs of stress/ disease/ phenotypic disorders and the presence of parasites and pathogens
- PC19. identify, quarantine and treat the unhealthy organisms following the recommended practices
- **PC20.** monitor the quarantined organisms for signs of improvement and restock them in aquarium on complete recovery
- **PC21.** remove the dead and moribund organisms and dispose them in an environment-friendly manner and do not release aquarium fish into waterways or stormwater drains
- PC22. maintain records of water quality, fish health, feed supplied etc.
- **PC23.** maintain the health of the fish's own immune system by appropriate husbandry including resting/acclimatization periods
- **PC24.** avoid unnecessary stressing of fish eg over or under stocking depending on species, using correct transport and handling methods
- PC25. sterilize the systems regularly as per requirements
- PC26. follow the biosecurity protocols correctly at all stages

#### Maintain personal hygiene and safety

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

- **PC27.** be aware of the possibilities of bacterial and other contamination from human handling of fish
- **PC28.** use the recommended soap or sanitiser to keep hands sanitised
- PC29. undertake basic safety checks before operation of any equipments
- **PC30.** check the relevant Personal Protective Equipment (PPE) before use and repair or replace it, as required
- **PC31.** use the relevant PPE during various aquaculture operations such as the application of hazardous chemicals
- **PC32.** exercise caution when handling electrical/lighting equipment in the tank
- PC33. report potential hazards to the supervisor immediately
- PC34. follow standard procedures to deal with accidents and emergency situations
- **PC35.** administer first-aid to the injured personnel and co-ordinate with the emergency services for further medical attention
- **PC36.** store hazardous chemicals, tools and equipment in the safe storage area to avoid personal harm or injury

# Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. organizations standards and procedures followed safety, hygiene and sanitation
- KU2. job responsibilities/duties for following safety, hygiene and sanitation









- KU3. safe disposal methods for waste followed by the organization
- **KU4.** importance of following health, hygiene and safety standards
- **KU5.** prevention of infections and accidents
- KU6. appropriate practices to be followed to maintain personal hygiene and prevent infections
- KU7. method of maintaining safety checklist
- KU8. safety guidelines and procedures
- KU9. the importance of storing hazardous chemicals, tools and equipment safely
- KU10. how to administer first-aid and co-ordinate with emergency services
- **KU11.** the importance of removing the dead and moribund organisms from the water body promptly and disposing them safely
- KU12. the process of identifying, quarantining and treating the unhealthy organisms
- **KU13.** the signs of improvement in the quarantined organisms
- **KU14.** the signs of stress or disease in the cultured organisms such as spots, lesions, erratic movement, etc.

# **Generic Skills (GS)**

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

- GS1. read guidelines on ready to use artefacts of a fresh water aquarium, and its cleaning
- GS2. read the prescribed water quality parameters and any information related to aquascaping
- **GS3.** maintain a log of important events
- **GS4.** maintain a check list of things to do with a timeline for setting up and running of a freshwater aquarium
- **GS5.** effectively communicate with customers to understand their needs and explain the maintenance and upkeep of the aquarium
- **GS6.** observe critical parameters on day to day basis and take informed decisions, and respond appropriately to the situation
- **GS7.** plan and organize the day's monitoring and maintenance work
- **GS8.** plan and schedule tasks to ensure timely completion
- **GS9.** plan to utilise time and equipments effectively
- GS10. organize all process/ equipment manuals so as to access information easily
- GS11. take quick decisions within the limits of authority to resolve work-related issues
- **GS12.** understand customer requirements, their priorities, and respond appropriately to their needs
- **GS13.** co-ordinate with the co-workers to achieve the work objectives
- **GS14.** detect problems like contamination, infections etc. well in advance and take timely, corrective action
- **GS15.** analyse mortality/survival data for future improvements
- **GS16.** apply domain information about aquascaping, technical knowledge about ornamental fish species, its life cycle and rearing
- **GS17.** use common sense and make judgments on day to day basis
- GS18. use reasoning skills to identify and resolve basic problems







# **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Follow biosecurity protocols and ensure safety, hygiene in marine and freshwater aquariums(including garden ponds)	20	30	-	20
<b>PC1.</b> carry out procedures in place to protect ornamental aquatic organisms (fish, invertebrate or plant) from contracting, carrying or spreading disease	-	-	-	-
<b>PC2.</b> identify the associated hazards by pathogens that might arrive or get transferred in the system and their appropriate method of management or elimination and critical control points associated with them	-	-	-	-
<b>PC3.</b> plan and set up the structure of aquarium system and its electrical connections keeping in mind guidelines of safety	-	-	-	-
<b>PC4.</b> ensure each artefact planned for the marine or freshwater aquarium system is acclimatized and cured to specifications that support and sustain the ecosystem	-	-	-	-
<b>PC5.</b> ensure the proper introduction of artefacts, at appropriate times so the ecosystem gradually acclimatizes to each of them	-	-	-	-
<b>PC6.</b> conduct tests to check water quality ph, ammonium, nitrite levels and salinity	-	-	-	-
<b>PC7.</b> exchange appropriate percentages of the water at regular intervals	-	-	_	-
<b>PC8.</b> ensure routine cleaning and inspections of the entire system	-	-	-	-
<b>PC9.</b> Check regularly the signs to look for that might indicate a disease issue viz. Loss of appetite, and loss of body weight, Skin ulcers and eroded fins, Loss of bright colours, Bloated belly, Loss of buoyancy control, Abnormal swimming behaviour, Bulged out eyes etc.	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC10.</b> monitor the accretion of waste at the bottom of tank and establish a routine to remove them	-	-	-	-
<b>PC11.</b> ensure all filters and fittings camouflaged by artefacts are routinely checked and kept in good working order	-	-	-	-
<b>PC12.</b> establish a feeding routine and choice of feed for all types of aquatic life in the aquarium	-	-	-	-
<b>PC13.</b> ensure the introduction of beneficial organisms that help maintain the sustainability of the aquarium	-	-	-	-
<b>PC14.</b> quarantine and condition any new fish before introducing in tanks for better biosecurity	-	-	-	-
<b>PC15.</b> ensure maturation of the tanks before introducing new fishes to prevent new tanks syndrome	-	-	-	-
<b>PC16.</b> follow the recommended practices to protect the aquarium from different types of threats , contamination and diseases	-	-	-	-
<b>PC17.</b> apply the necessary disinfectants or preventive treatment in the aquarium to prevent disease outbreak and the growth of harmful organisms	-	-	-	-
<b>PC18.</b> sample the water quality and fishes grown in aquarium regularly to identify the signs of stress/ disease/ phenotypic disorders and the presence of parasites and pathogens	-	-	-	-
<b>PC19.</b> identify, quarantine and treat the unhealthy organisms following the recommended practices	-	-	-	-
<b>PC20.</b> monitor the quarantined organisms for signs of improvement and restock them in aquarium on complete recovery	-	-	-	-
<b>PC21.</b> remove the dead and moribund organisms and dispose them in an environment-friendly manner and do not release aquarium fish into waterways or stormwater drains	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC22.</b> maintain records of water quality, fish health, feed supplied etc.	-	-	-	-
<b>PC23.</b> maintain the health of the fish's own immune system by appropriate husbandry including resting/acclimatization periods	-	-	-	-
<b>PC24.</b> avoid unnecessary stressing of fish eg over or under stocking depending on species, using correct transport and handling methods	-	-	-	-
<b>PC25.</b> sterilize the systems regularly as per requirements	-	-	-	-
<b>PC26.</b> follow the biosecurity protocols correctly at all stages	-	-	-	-
Maintain personal hygiene and safety	10	10	-	10
<b>PC27.</b> be aware of the possibilities of bacterial and other contamination from human handling of fish	-	-	-	-
<b>PC28.</b> use the recommended soap or sanitiser to keep hands sanitised	-	-	-	-
<b>PC29.</b> undertake basic safety checks before operation of any equipments	-	-	-	-
<b>PC30.</b> check the relevant Personal Protective Equipment (PPE) before use and repair or replace it, as required	-	-	-	-
<b>PC31.</b> use the relevant PPE during various aquaculture operations such as the application of hazardous chemicals	-	-	-	-
<b>PC32.</b> exercise caution when handling electrical/lighting equipment in the tank	-	-	-	-
<b>PC33.</b> report potential hazards to the supervisor immediately	-	-	-	-
<b>PC34.</b> follow standard procedures to deal with accidents and emergency situations	-	-	-	-
<b>PC35.</b> administer first-aid to the injured personnel and co-ordinate with the emergency services for further medical attention	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC36.</b> store hazardous chemicals, tools and equipment in the safe storage area to avoid personal harm or injury	-	-	-	-
NOS Total	30	40	-	30









# National Occupational Standards (NOS) Parameters

NOS Code	AGR/N5117
NOS Name	Ensure safety, hygiene and sanitation practices in aquascaping
Sector	Agriculture
Sub-Sector	Fisheries
Occupation	Assistance (Fisheries)
NSQF Level	4
Credits	1
Version	2.0
Last Reviewed Date	24/02/2022
Next Review Date	24/02/2025
NSQC Clearance Date	24/02/2022







# DGT/VSQ/N0103: Employability Skills (90 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
- Career Development & Goal Setting
- 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 current job market requirement and future of work
- PC2. identify and explore learning and employability relevant portals
- **PC3.** research about the different industries, job market trends, latest skills required and the available opportunities

#### Constitutional values - Citizenship

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

- **PC4.** recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.
- **PC5.** follow environmentally sustainable practices

#### Becoming a Professional in the 21st Century

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

PC6. recognize the significance of 21st Century Skills for employment









- **PC7.** practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life
- **PC8.** adopt a continuous learning mindset for personal and professional development

## Basic English Skills

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

- **PC9.** use basic English for everyday conversation in different contexts, in person and over the telephone
- **PC10.** read and understand routine information, notes, instructions, mails, letters etc. written in English
- PC11. write short messages, notes, letters, e-mails etc. in English

#### Career Development & Goal Setting

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

- **PC12.** identify career goals based on the skills, interests, knowledge, and personal attributes
- PC13. prepare a career development plan with short- and long-term goals

#### Communication Skills

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

- **PC14.** follow verbal and non-verbal communication etiquette while communicating in professional and public settings
- PC15. use active listening techniques for effective communication
- **PC16.** communicate in writing using appropriate style and format based on formal or informal requirements
- **PC17.** work collaboratively with others in a team

#### Diversity & Inclusion

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

- PC18. communicate and behave appropriately with all genders and PwD
- PC19. escalate any issues related to sexual harassment at workplace according to POSH Act

#### Financial and Legal Literacy

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

- **PC20.** identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc.
- **PC21.** carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook
- **PC22.** identify common components of salary and compute income, expenses, taxes, investments etc

# **PC23.** identify relevant rights and laws and use legal aids to fight against legal exploitation *Essential Digital Skills*

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

- PC24. operate digital devices and use their features and applications securely and safely
- **PC25.** carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc.
- PC26. display responsible online behaviour while using various social media platforms









- **PC27.** create a personal email account, send and process received messages as per requirement
- **PC28.** carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications
- PC29. utilize virtual collaboration tools to work effectively

#### Entrepreneurship

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

- **PC30.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
- **PC31.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
- **PC32.** identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity

#### **Customer Service**

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

- PC33. identify different types of customers and ways to communicate with them
- PC34. identify and respond to customer requests and needs in a professional manner
- PC35. use appropriate tools to collect customer feedback
- PC36. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

- **PC37.** create a professional Curriculum vitae (Résumé)
- **PC38.** search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively
- **PC39.** apply to identified job openings using offline /online methods as per requirement
- PC40. answer questions politely, with clarity and confidence, during recruitment and selection
- PC41. identify apprenticeship opportunities and register for it as per guidelines and requirements

# Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. need for employability skills and different learning and employability related portals
- 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 English language for effective verbal (face to face and telephonic) and written communication in formal and informal set up
- KU6. importance of career development and setting long- and short-term goals
- **KU7.** about effective communication
- KU8. POSH Act
- **KU9.** Gender sensitivity and inclusivity
- **KU10.** different types of financial institutes, products, and services









- KU11. components of salary and how to compute income and expenditure
- KU12. importance of maintaining safety and security in offline and online financial transactions
- **KU13.** different legal rights and laws
- KU14. different types of digital devices and the procedure to operate them safely and securely
- KU15. how to create and operate an e- mail account
- **KU16.** use applications such as word processors, spreadsheets etc.
- KU17. how to identify business opportunities
- KU18. types and needs of customers
- KU19. how to apply for a job and prepare for an interview
- KU20. apprenticeship scheme and the process of registering on apprenticeship portal

# **Generic Skills (GS)**

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

- **GS1.** read and write different types of documents/instructions/correspondence in English and other languages
- GS2. communicate effectively using appropriate language in formal and informal settings
- GS3. behave politely and appropriately with all to maintain effective work relationship
- GS4. how to work in a virtual mode, using various technological platforms
- GS5. perform calculations efficiently
- GS6. solve problems effectively
- **GS7.** pay attention to details
- GS8. manage time efficiently
- **GS9.** maintain hygiene and sanitization to avoid infection







# **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Introduction to Employability Skills	1	1	-	-
<b>PC1.</b> understand the significance of employability skills in meeting the current job market requirement and future of work	-	-	-	-
<b>PC2.</b> identify and explore learning and employability relevant portals	-	-	-	-
<b>PC3.</b> research about the different industries, job market trends, latest skills required and the available opportunities	-	-	_	-
Constitutional values – Citizenship	1	1	-	-
<b>PC4.</b> recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
PC5. follow environmentally sustainable practices	-	-	-	-
Becoming a Professional in the 21st Century	1	3	-	-
<b>PC6.</b> recognize the significance of 21st Century Skills for employment	-	_	-	-
<b>PC7.</b> practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	_	_	_
<b>PC8.</b> adopt a continuous learning mindset for personal and professional development	-	-	-	-
Basic English Skills	3	4	-	-
<b>PC9.</b> use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC10.</b> read and understand routine information, notes, instructions, mails, letters etc. written in English	_	-	-	-
<b>PC11.</b> write short messages, notes, letters, e-mails etc. in English	-	-	-	-
Career Development & Goal Setting	1	2	-	-
<b>PC12.</b> identify career goals based on the skills, interests, knowledge, and personal attributes	_	-	-	-
<b>PC13.</b> prepare a career development plan with short- and long-term goals	_	-	-	-
Communication Skills	2	2	-	-
<b>PC14.</b> follow verbal and non-verbal communication etiquette while communicating in professional and public settings	-	-	-	-
<b>PC15.</b> use active listening techniques for effective communication	-	-	-	-
<b>PC16.</b> communicate in writing using appropriate style and format based on formal or informal requirements	-	-	-	-
PC17. work collaboratively with others in a team	-	-	-	-
Diversity & Inclusion	1	1	-	-
<b>PC18.</b> communicate and behave appropriately with all genders and PwD	_	-	-	-
<b>PC19.</b> escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
Financial and Legal Literacy	2	3	-	-
<b>PC20.</b> identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc.	-	-	-	-
<b>PC21.</b> carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC22.</b> identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
<b>PC23.</b> identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
Essential Digital Skills	3	5	-	-
<b>PC24.</b> operate digital devices and use their features and applications securely and safely	-	-	-	-
<b>PC25.</b> carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc.	-	-	-	-
<b>PC26.</b> display responsible online behaviour while using various social media platforms	-	-	-	-
<b>PC27.</b> create a personal email account, send and process received messages as per requirement	-	-	-	-
<b>PC28.</b> carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications	-	-	-	-
<b>PC29.</b> utilize virtual collaboration tools to work effectively	-	-	-	-
Entrepreneurship	2	3	-	-
<b>PC30.</b> identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
<b>PC31.</b> develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
<b>PC32.</b> identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
Customer Service	1	2	-	-
<b>PC33.</b> identify different types of customers and ways to communicate with them	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC34.</b> identify and respond to customer requests and needs in a professional manner	-	-	-	-
<b>PC35.</b> use appropriate tools to collect customer feedback	-	-	-	-
<b>PC36.</b> follow appropriate hygiene and grooming standards	-	-	-	-
Getting ready for apprenticeship & Jobs	2	3	-	-
<b>PC37.</b> create a professional Curriculum vitae (Résumé)	-	-	-	-
<b>PC38.</b> search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
<b>PC39.</b> apply to identified job openings using offline /online methods as per requirement	-	-	-	-
<b>PC40.</b> answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
<b>PC41.</b> identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
NOS Total	20	30	-	-









# National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0103
NOS Name	Employability Skills (90 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	5
Credits	3
Version	1.0
Last Reviewed Date	18/02/2025
Next Review Date	18/02/2028
NSQC Clearance Date	18/02/2025

# 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/optional 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 70% of % 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 : 70

(**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
AGR/N5115.Set up and manage marine aquarium	30	40	0	30	100	40
AGR/N5116.Set up and manage freshwater aquarium (including garden ponds)	30	40	-	30	100	40
AGR/N5117.Ensure safety, hygiene and sanitation practices in aquascaping	30	40	0	30	100	10
DGT/VSQ/N0103.Employability Skills (90 Hours)	20	30	-	-	50	10
Total	110	150	-	90	350	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.