

## Qualification Pack



# Greenhouse Operator

QP Code: AGR/Q1003

Version: 3.0

NSQF Level: 3

Agriculture Skill Council of India || 6th Floor, GNG Tower, Plot No. 10, Sector -44, Gurgaon  
Haryana-122004 || email:shrinkhala@asci-india.com

## Qualification Pack

### Contents

AGR/Q1003: Greenhouse Operator .....	3
<i>Brief Job Description</i> .....	3
Applicable National Occupational Standards (NOS) .....	3
<i>Compulsory NOS</i> .....	3
<i>Qualification Pack (QP) Parameters</i> .....	3
AGR/N1014: Assist in setting up the greenhouse .....	5
AGR/N1008: Carry out greenhouse operations and maintain the greenhouse .....	10
AGR/N9903: Maintain health and safety at the workplace .....	17
DGT/VSQ/N0102: Employability Skills (60 Hours) .....	23
Assessment Guidelines and Weightage .....	30
<i>Assessment Guidelines</i> .....	30
<i>Assessment Weightage</i> .....	31
Acronyms .....	32
Glossary .....	33

## Qualification Pack

### AGR/Q1003: Greenhouse Operator

#### Brief Job Description

A Greenhouse Operator assists in setting up and maintaining a greenhouse. The person is also responsible for planting, maintaining, harvesting and marketing different types of plants, vegetables and flowers in a greenhouse. The individual performs all these activities under supervision.

#### Personal Attributes

This individual must be physically fit to work for long durations. The person must be able to work as per the given instructions and in coordination with others to achieve the work objectives. Problem-solving skills along with basic oral and written communication skills are the other important attributes required in this job role.

#### Applicable National Occupational Standards (NOS)

##### Compulsory NOS:

1. [AGR/N1014: Assist in setting up the greenhouse](#)
2. [AGR/N1008: Carry out greenhouse operations and maintain the greenhouse](#)
3. [AGR/N9903: Maintain health and safety at the workplace](#)
4. [DGT/VSQ/N0102: Employability Skills \(60 Hours\)](#)

#### Qualification Pack (QP) Parameters

<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Agriculture Crop Production
<b>Occupation</b>	Precision Farming
<b>Country</b>	India
<b>NSQF Level</b>	3
<b>Credits</b>	9
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/NIL

### Qualification Pack

<b>Minimum Educational Qualification &amp; Experience</b>	8th Class with 1 Year of experience relevant experience OR 8th Class (Pass and pursuing continuous regular schooling) OR 5th Class (Pass) with 4 Years of experience relevant experience OR Ability to read and write with 5 Years of experience relevant experience OR Certificate-NSQF (Level-3 (Farm Worker)) with 6 Months of experience relevant experience
<b>Minimum Level of Education for Training in School</b>	
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	NA
<b>Next Review Date</b>	25/11/2024
<b>NSQC Approval Date</b>	25/11/2021
<b>Version</b>	3.0
<b>Reference code on NQR</b>	2022/AGR/ASCI/06543
<b>NQR Version</b>	1.0

## Qualification Pack

### AGR/N1014: Assist in setting up the greenhouse

#### Description

This OS unit is about assisting the greenhouse installer in setting up different types of greenhouse.

#### Scope

The scope covers the following :

- Assist in setting up different types of greenhouse
- Optimise resource utilisation

#### Elements and Performance Criteria

##### *Assist in setting up different types of greenhouse*

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

- PC1.** assist in the selection of an appropriate type of greenhouse such as the lean-to, even or uneven span, ridge and furrow, saw tooth based on the relevant criteria such as the climate, topography, sunlight exposure, availability of quality water, market accessibility, etc.
- PC2.** assist the greenhouse installer in taking measurements and preparing a layout of the greenhouse
- PC3.** assist in organising the necessary materials such as wood, galvanized steel or iron, aluminium, glazing material, tools and equipment required for setting up the selected type of greenhouse
- PC4.** level the selected land as per the installer's instructions before the installation of the greenhouse
- PC5.** assist in preparing the greenhouse structure and erecting it as per the prepared layout, ensuring good air-circulation, adequate sunlight exposure along with temperature and humidity control equipment
- PC6.** assist in installing the appropriate glazing material as per the plan such as Polycarbonate plastic, glass, Fibre-reinforced plastic (FRP), corrugated sheet, plastic film, Ultraviolet stabilised low-density polyethylene, Silpaulin, etc.
- PC7.** Assist in Installation of wireless sensor networks or IOT based systems to regulate the greenhouse as per plan
- PC8.** assist in installing automated or non-automated irrigation or fertigation system as planned
- PC9.** arrange for safe drainage of excess water from the greenhouse and its protection from external threats such as stray animals, whiteflies, rodents, etc.

##### *Optimise resource utilisation*

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

- PC10.** optimise the usage of water and other resources in various tasks and processes
- PC11.** plug water leakages to prevent its wastage

#### Knowledge and Understanding (KU)

## Qualification Pack

The individual on the job needs to know and understand:

- KU1.** different types of greenhouse such as the lean-to, even or uneven span, ridge and furrow, sawtooth, etc.
- KU2.** the criteria for selecting a particular type of greenhouse to be set up, such as the climate, topography, sunlight exposure, availability of quality water, market accessibility, etc.
- KU3.** the process of taking measurements and preparing a layout of the greenhouse
- KU4.** various materials required for setting up a greenhouse according to the type selected such as wood, galvanized steel or iron, aluminium, glazing material, tools and equipment, etc.
- KU5.** the process of levelling the selected land, preparing the greenhouse structure and erecting it as per the prepared layout
- KU6.** the importance of ensuring good air-circulation along with the recommended sunlight exposure, temperature and humidity in the greenhouse
- KU7.** how to install the relevant temperature and humidity control equipment
- KU8.** the process of installing the appropriate glazing material as per the plan such as glass, Fibre-reinforced plastic (FRP), corrugated sheet, plastic film, Ultraviolet stabilised low-density polyethene, Silpaulin, etc.
- KU9.** the process of installing an irrigation or fertigation system
- KU10.** the importance of arranging for safe drainage of excess water from the greenhouse and its protection from external threats such as stray animals, whiteflies, rodents, etc.
- KU11.** the benefits of resource optimisation

## Generic Skills (GS)

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

- GS1.** write work-related notes and records
- GS2.** read the relevant literature to get information about new developments in the field of work
- GS3.** communicate politely and professionally
- GS4.** listen attentively to understand the information/ instructions being given
- GS5.** identify possible disruptions to work and take appropriate preventive measures
- GS6.** evaluate all possible solutions to a problem to select the best solution
- GS7.** plan and prioritise tasks to ensure timely completion
- GS8.** co-ordinate with the co-workers to achieve the work objectives

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Assist in setting up different types of greenhouse</i>	<b>20</b>	<b>25</b>	-	<b>20</b>
<b>PC1.</b> assist in the selection of an appropriate type of greenhouse such as the lean-to, even or uneven span, ridge and furrow, saw tooth based on the relevant criteria such as the climate, topography, sunlight exposure, availability of quality water, market accessibility, etc.	-	-	-	-
<b>PC2.</b> assist the greenhouse installer in taking measurements and preparing a layout of the greenhouse	-	-	-	-
<b>PC3.</b> assist in organising the necessary materials such as wood, galvanized steel or iron, aluminium, glazing material, tools and equipment required for setting up the selected type of greenhouse	-	-	-	-
<b>PC4.</b> level the selected land as per the installer's instructions before the installation of the greenhouse	-	-	-	-
<b>PC5.</b> assist in preparing the greenhouse structure and erecting it as per the prepared layout, ensuring good air-circulation, adequate sunlight exposure along with temperature and humidity control equipment	-	-	-	-
<b>PC6.</b> assist in installing the appropriate glazing material as per the plan such as Polycarbonate plastic, glass, Fibre-reinforced plastic (FRP), corrugated sheet, plastic film, Ultraviolet stabilised low-density polyethene, Silpaulin, etc.	-	-	-	-
<b>PC7.</b> Assist in Installation of wireless sensor networks or IOT based systems to regulate the greenhouse as per plan	-	-	-	-
<b>PC8.</b> assist in installing automated or non-automated irrigation or fertigation system as planned	-	-	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC9.</b> arrange for safe drainage of excess water from the greenhouse and its protection from external threats such as stray animals, whiteflies, rodents, etc.	-	-	-	-
<i>Optimise resource utilisation</i>	<b>10</b>	<b>15</b>	-	<b>10</b>
<b>PC10.</b> optimise the usage of water and other resources in various tasks and processes	-	-	-	-
<b>PC11.</b> plug water leakages to prevent its wastage	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	-	<b>30</b>

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	AGR/N1014
<b>NOS Name</b>	Assist in setting up the greenhouse
<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Agriculture Crop Production
<b>Occupation</b>	Precision Farming
<b>NSQF Level</b>	3
<b>Credits</b>	3
<b>Version</b>	2.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	17/11/2025
<b>NSQF Clearance Date</b>	17/11/2022

## Qualification Pack

# AGR/N1008: Carry out greenhouse operations and maintain the greenhouse

## Description

This OS unit is about carrying out various greenhouse operations such as planting, maintaining, harvesting and marketing seeds, flowers, vegetables and plants. It also covers maintenance of the greenhouse and waste management practices.

## Scope

The scope covers the following :

- Plant and maintain seeds, vegetables and plants
- Harvest, acclimatise and transplant seedlings and plants
- Harvest the flowers and vegetables
- Carry out post-harvest processing and marketing of flowers and vegetables
- Maintain the greenhouse
- Perform waste management

## Elements and Performance Criteria

### *Plant and maintain seeds, vegetables and plants*

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

- PC1.** ensure the availability of required planting material
- PC2.** prepare the raised, flat or sunken bed in the greenhouse as per the requirement
- PC3.** plant seeds, vegetables and different types of plants in the greenhouse
- PC4.** water the planted seeds, vegetables, flowers and plants with the recommended quantity
- PC5.** apply relevant fertilizers in the recommended quantity to promote the healthy growth of seedlings, vegetables and plants
- PC6.** check the seedlings, vegetables, flowers and plants to identify the signs of pests and disease
- PC7.** apply the recommended pesticides and insecticides to control pest and disease infestation
- PC8.** remove the dead and damaged seedlings, vegetables, flowers and plants
- PC9.** apply herbicides and weedicides and carry out manual weeding to prevent unwanted growth in the greenhouse
- PC10.** maintain the recommended temperature, humidity and sunlight exposure in the greenhouse
- PC11.** carry out regular repair and maintenance of the irrigation or fertigation system
- PC12.** maintain the manual and/ or electronic record of herbicides, weedicides fertilizers, pesticides and insecticides used in the greenhouse

### *Harvest, acclimatise and transplant seedlings and plants*

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

- PC13.** check the readiness of the seedlings and plants for being transplanted
- PC14.** harvest the seedlings and plants ensuring no damage to them

## Qualification Pack

**PC15.** acclimatise the seedlings and plants under the recommended temperature, protecting them from harsh conditions

**PC16.** transplant the acclimatised seedlings and plants in the garden

### *Harvest the flowers and vegetables*

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

**PC17.** check the maturity of flowers and vegetables grown in the greenhouse

**PC18.** harvest the flowers and vegetables using the appropriate tools and collect them in appropriate baskets and/ or containers

**PC19.** store the harvested flowers and vegetables at the recommended temperature, humidity and hygienic conditions

### *Carry out post-harvest processing and marketing of flowers and vegetables*

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

**PC20.** carry out sorting and grading of the flowers and vegetables

**PC21.** clean the vegetables using clean water and recommended cleaning agents

**PC22.** prepare the hydration solution and apply it to the flowers to maintain their freshness

**PC23.** market the flowers and vegetables to the customers visiting the greenhouse or to the regular market buyers

**PC24.** process the payments using the appropriate e-payment methods

**PC25.** maintain the record of sales and payments manually and/or electronically using the physical registers and/ or the relevant computer application

### *Maintain the greenhouse*

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

**PC26.** maintain cleanliness in the greenhouse through regular sweeping and removal of trash

**PC27.** check the greenhouse structure regularly to identify the repair and maintenance needs

**PC28.** carry out regular repair and maintenance of the greenhouse structure and co-ordinate with an expert for complex repairs

### *Perform waste management*

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

**PC29.** segregate waste into appropriate categories

**PC30.** dispose or recycle different types of wastes following the recommended practices

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

**KU1.** the process to prepare raised, flat or sunken bed in the greenhouse

**KU2.** how to plant seeds, vegetables and different types of plants in the greenhouse

**KU3.** water requirements of different types of seeds, vegetables, flowers and plants

**KU4.** how to apply fertilizers, herbicides, weedicides, pesticides and insecticides in a greenhouse

**KU5.** signs of pests and disease in the seedlings, vegetables, flowers and plants

**KU6.** the importance of maintaining the recommended temperature, humidity and sunlight exposure in the greenhouse

## Qualification Pack

- KU7.** the process of carrying out regular repair and maintenance of the irrigation or fertigation system
- KU8.** applicable documentation and record-keeping requirements
- KU9.** the process of harvest, acclimatising and transplanting seedlings and plants
- KU10.** the process of harvesting flowers and vegetables, and the use of relevant tools
- KU11.** the importance of storing the harvested flowers and vegetables at the recommended temperature, humidity and hygienic conditions
- KU12.** post-harvest processing and marketing of flowers and vegetables i.e. sorting and grading, cleaning and marketing
- KU13.** how to prepare the hydration solution and apply it on flowers to maintain their freshness
- KU14.** use of relevant e-payment methods
- KU15.** use of physical registers and/ or the relevant computer application to maintain manual or electronic record of sales and payments
- KU16.** the importance of maintaining cleanliness in the greenhouse
- KU17.** how to carry out regular repair and maintenance of the greenhouse
- KU18.** the criteria for segregating waste into different categories
- KU19.** the process of recycling and disposing different types of waste

## Generic Skills (GS)

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

- GS1.** maintain work-related notes and records
- GS2.** read the relevant guides and manuals
- GS3.** communicate politely and professionally
- GS4.** listen attentively to understand the information/instructions being shared
- GS5.** plan and schedule various tasks for effective time-management
- GS6.** identify possible disruptions to work and take appropriate preventive measures
- GS7.** evaluate all the possible solutions to a problem to select the best one

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Plant and maintain seeds, vegetables and plants</i>	<b>10</b>	<b>12</b>	-	<b>8</b>
<b>PC1.</b> ensure the availability of required planting material	-	-	-	-
<b>PC2.</b> prepare the raised, flat or sunken bed in the greenhouse as per the requirement	-	-	-	-
<b>PC3.</b> plant seeds, vegetables and different types of plants in the greenhouse	-	-	-	-
<b>PC4.</b> water the planted seeds, vegetables, flowers and plants with the recommended quantity	-	-	-	-
<b>PC5.</b> apply relevant fertilizers in the recommended quantity to promote the healthy growth of seedlings, vegetables and plants	-	-	-	-
<b>PC6.</b> check the seedlings, vegetables, flowers and plants to identify the signs of pests and disease	-	-	-	-
<b>PC7.</b> apply the recommended pesticides and insecticides to control pest and disease infestation	-	-	-	-
<b>PC8.</b> remove the dead and damaged seedlings, vegetables, flowers and plants	-	-	-	-
<b>PC9.</b> apply herbicides and weedicides and carry out manual weeding to prevent unwanted growth in the greenhouse	-	-	-	-
<b>PC10.</b> maintain the recommended temperature, humidity and sunlight exposure in the greenhouse	-	-	-	-
<b>PC11.</b> carry out regular repair and maintenance of the irrigation or fertigation system	-	-	-	-
<b>PC12.</b> maintain the manual and/ or electronic record of herbicides, weedicides fertilizers, pesticides and insecticides used in the greenhouse	-	-	-	-
<i>Harvest, acclimatise and transplant seedlings and plants</i>	<b>6</b>	<b>8</b>	-	<b>4</b>

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> check the readiness of the seedlings and plants for being transplanted	-	-	-	-
<b>PC14.</b> harvest the seedlings and plants ensuring no damage to them	-	-	-	-
<b>PC15.</b> acclimatise the seedlings and plants under the recommended temperature, protecting them from harsh conditions	-	-	-	-
<b>PC16.</b> transplant the acclimatised seedlings and plants in the garden	-	-	-	-
<i>Harvest the flowers and vegetables</i>	<b>4</b>	<b>6</b>	-	<b>4</b>
<b>PC17.</b> check the maturity of flowers and vegetables grown in the greenhouse	-	-	-	-
<b>PC18.</b> harvest the flowers and vegetables using the appropriate tools and collect them in appropriate baskets and/ or containers	-	-	-	-
<b>PC19.</b> store the harvested flowers and vegetables at the recommended temperature, humidity and hygienic conditions	-	-	-	-
<i>Carry out post-harvest processing and marketing of flowers and vegetables</i>	<b>4</b>	<b>8</b>	-	<b>6</b>
<b>PC20.</b> carry out sorting and grading of the flowers and vegetables	-	-	-	-
<b>PC21.</b> clean the vegetables using clean water and recommended cleaning agents	-	-	-	-
<b>PC22.</b> prepare the hydration solution and apply it to the flowers to maintain their freshness	-	-	-	-
<b>PC23.</b> market the flowers and vegetables to the customers visiting the greenhouse or to the regular market buyers	-	-	-	-
<b>PC24.</b> process the payments using the appropriate e-payment methods	-	-	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC25.</b> maintain the record of sales and payments manually and/or electronically using the physical registers and/ or the relevant computer application	-	-	-	-
<i>Maintain the greenhouse</i>	<b>2</b>	<b>4</b>	-	<b>4</b>
<b>PC26.</b> maintain cleanliness in the greenhouse through regular sweeping and removal of trash	-	-	-	-
<b>PC27.</b> check the greenhouse structure regularly to identify the repair and maintenance needs	-	-	-	-
<b>PC28.</b> carry out regular repair and maintenance of the greenhouse structure and co-ordinate with an expert for complex repairs	-	-	-	-
<i>Perform waste management</i>	<b>4</b>	<b>2</b>	-	<b>4</b>
<b>PC29.</b> segregate waste into appropriate categories	-	-	-	-
<b>PC30.</b> dispose or recycle different types of wastes following the recommended practices	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	-	<b>30</b>

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	AGR/N1008
<b>NOS Name</b>	Carry out greenhouse operations and maintain the greenhouse
<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Agriculture Crop Production
<b>Occupation</b>	Precision Farming
<b>NSQF Level</b>	3
<b>Credits</b>	3
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	17/11/2025
<b>NSQC Clearance Date</b>	17/11/2022

## Qualification Pack

### AGR/N9903: Maintain health and safety at the workplace

#### Description

This OS is about maintaining health and safety of self and other co-workers at the workplace

#### Scope

The scope covers the following :

- Maintain personal hygiene
- Maintain clean and safe workplace
- Administer appropriate emergency procedures

#### Elements and Performance Criteria

##### *Maintain personal hygiene*

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

- PC1.** wash hands, legs and face with soap/alcohol based sanitizer at reasonable intervals
- PC2.** wash the worn clothes with soap and sun dry before use next time
- PC3.** ensure the face is covered with mask or three layers of cloth-piece
- PC4.** follow the workplace sanitization norms including distancing from sick people

##### *Maintain clean and safe workplace*

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

- PC5.** carry out basic safety checks before operation of all tools, implements, and machinery and report identified hazards to the supervisor
- PC6.** wear appropriate Personal Protective Equipment (PPE) while performing work in accordance with the workplace policy
- PC7.** follow the instructions mentioned on the labels of chemicals/pesticides/fumigants etc to avoid hazards
- PC8.** assess risks prior to performing manual handling jobs, and work according to currently recommended safe practices
- PC9.** sanitize equipment, tools and machinery before and after use
- PC10.** use equipment and materials safely and correctly and return the same to designated storage after use
- PC11.** dispose waste safely and correctly in the designated area
- PC12.** recognize risks to bystanders and take required action to reduce the risks
- PC13.** work in a manner which minimizes environmental damage, ensuring all procedures and instructions for controlling risks are followed
- PC14.** report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger
- PC15.** follow government / workplace advisories incase of outbreak of any disease/disaster

##### *Administer appropriate emergency procedures*

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

## Qualification Pack

- PC16.** follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to the location of emergency, as per the workplace requirements
- PC17.** use emergency equipment in accordance with manufacturer's specifications and workplace requirements
- PC18.** provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques
- PC19.** recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate
- PC20.** report details of first aid administered in accordance with workplace procedures

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant legislation, standards, policies, and procedures at work
- KU2.** relevant health and safety requirements applicable to the work environment
- KU3.** own job role and responsibilities and sources of information pertaining to work
- KU4.** who to approach for support in order to obtain work related information, clarifications and support
- KU5.** importance of following health, hygiene, safety and quality standards and the impact of not following the standards on consumers and the business
- KU6.** personal hygiene and fitness requirement
- KU7.** importance of sanitization of the workplace
- KU8.** types of Personal Protective Equipment (PPE) required at the workplace and their importance
- KU9.** the correct and safe way to use materials and equipment required for the work
- KU10.** the importance of good housekeeping at the workplace
- KU11.** safe waste disposal methods
- KU12.** methods for minimizing environmental damage during work
- KU13.** the risks to health and safety including contagious diseases and the measures to be taken to control those risks in the area of work
- KU14.** workplace procedures and requirements for the prevention and treatment of workplace injuries/illnesses.
- KU15.** basic emergency first aid procedure
- KU16.** local emergency services
- KU17.** why accidents, incidents and problems should be reported and the appropriate actions to be taken

## Generic Skills (GS)

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

- GS1.** record the data as per the requirement
- GS2.** report problems to the appropriate personnel in a timely manner

## Qualification Pack

- GS3.** read instruction manual for hand tool and equipments
- GS4.** communicate clearly and effectively with co-workers, and other stakeholders
- GS5.** comprehend information shared by senior people and experts
- GS6.** make decisions pertaining to personal hygiene and safety
- GS7.** schedule daily activities and draw up priorities
- GS8.** manage relationships with co-workers, manager and other stakeholders
- GS9.** assess situation and identify appropriate control measures

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain personal hygiene</i>	<b>10</b>	<b>5</b>	-	<b>10</b>
<b>PC1.</b> wash hands, legs and face with soap/alcohol based sanitizer at reasonable intervals	-	-	-	-
<b>PC2.</b> wash the worn clothes with soap and sun dry before use next time	-	-	-	-
<b>PC3.</b> ensure the face is covered with mask or three layers of cloth-piece	-	-	-	-
<b>PC4.</b> follow the workplace sanitization norms including distancing from sick people	-	-	-	-
<i>Maintain clean and safe workplace</i>	<b>15</b>	<b>15</b>	-	<b>15</b>
<b>PC5.</b> carry out basic safety checks before operation of all tools, implements, and machinery and report identified hazards to the supervisor	-	-	-	-
<b>PC6.</b> wear appropriate Personal Protective Equipment (PPE) while performing work in accordance with the workplace policy	-	-	-	-
<b>PC7.</b> follow the instructions mentioned on the labels of chemicals/pesticides/fumigants etc to avoid hazards	-	-	-	-
<b>PC8.</b> assess risks prior to performing manual handling jobs, and work according to currently recommended safe practices	-	-	-	-
<b>PC9.</b> sanitize equipment, tools and machinery before and after use	-	-	-	-
<b>PC10.</b> use equipment and materials safely and correctly and return the same to designated storage after use	-	-	-	-
<b>PC11.</b> dispose waste safely and correctly in the designated area	-	-	-	-
<b>PC12.</b> recognize risks to bystanders and take required action to reduce the risks	-	-	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> work in a manner which minimizes environmental damage, ensuring all procedures and instructions for controlling risks are followed	-	-	-	-
<b>PC14.</b> report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger	-	-	-	-
<b>PC15.</b> follow government / workplace advisories incase of outbreak of any disease/disaster	-	-	-	-
<i>Administer appropriate emergency procedures</i>	<b>15</b>	<b>5</b>	-	<b>10</b>
<b>PC16.</b> follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to the location of emergency, as per the workplace requirements	-	-	-	-
<b>PC17.</b> use emergency equipment in accordance with manufacturer's specifications and workplace requirements	-	-	-	-
<b>PC18.</b> provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques	-	-	-	-
<b>PC19.</b> recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate	-	-	-	-
<b>PC20.</b> report details of first aid administered in accordance with workplace procedures	-	-	-	-
<b>NOS Total</b>	<b>40</b>	<b>25</b>	-	<b>35</b>

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	AGR/N9903
<b>NOS Name</b>	Maintain health and safety at the workplace
<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Generic
<b>Occupation</b>	Generic
<b>NSQF Level</b>	4
<b>Credits</b>	1
<b>Version</b>	4.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	29/03/2026
<b>NSQC Clearance Date</b>	29/03/2023

## Qualification Pack

### DGT/VSQ/N0102: Employability Skills (60 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.** identify employability skills required for jobs in various industries
- PC2.** identify and explore learning and employability portals

##### *Constitutional values - Citizenship*

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

- PC3.** 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.
- PC4.** follow environmentally sustainable practices

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

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

- PC5.** recognize the significance of 21st Century Skills for employment
- PC6.** 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

##### *Basic English Skills*

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

## Qualification Pack

- PC7.** use basic English for everyday conversation in different contexts, in person and over the telephone
- PC8.** read and understand routine information, notes, instructions, mails, letters etc. written in English
- PC9.** 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:

- PC10.** understand the difference between job and career
- PC11.** prepare a career development plan with short- and long-term goals, based on aptitude

### *Communication Skills*

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

- PC12.** follow verbal and non-verbal communication etiquette and active listening techniques in various settings
- PC13.** work collaboratively with others in a team

### *Diversity & Inclusion*

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

- PC14.** communicate and behave appropriately with all genders and PwD
- PC15.** 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:

- PC16.** select financial institutions, products and services as per requirement
- PC17.** carry out offline and online financial transactions, safely and securely
- PC18.** identify common components of salary and compute income, expenses, taxes, investments etc
- PC19.** 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:

- PC20.** operate digital devices and carry out basic internet operations securely and safely
- PC21.** use e- mail and social media platforms and virtual collaboration tools to work effectively
- PC22.** use basic features of word processor, spreadsheets, and presentations

### *Entrepreneurship*

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

- PC23.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
- PC24.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
- PC25.** 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:

- PC26.** identify different types of customers
- PC27.** identify and respond to customer requests and needs in a professional manner.

## Qualification Pack

**PC28.** follow appropriate hygiene and grooming standards

*Getting ready for apprenticeship & Jobs*

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

**PC29.** create a professional Curriculum vitae (Résumé)

**PC30.** search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively

**PC31.** apply to identified job openings using offline /online methods as per requirement

**PC32.** answer questions politely, with clarity and confidence, during recruitment and selection

**PC33.** 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.** 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 and use applications such as word processors, spreadsheets etc.

**KU16.** how to identify business opportunities

**KU17.** types and needs of customers

**KU18.** how to apply for a job and prepare for an interview

**KU19.** 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

**GS2.** communicate effectively using appropriate language in formal and informal settings

## Qualification Pack

- GS3.** behave politely and appropriately with all
- GS4.** how to work in a virtual mode
- 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

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	<b>1</b>	<b>1</b>	-	-
<b>PC1.</b> identify employability skills required for jobs in various industries	-	-	-	-
<b>PC2.</b> identify and explore learning and employability portals	-	-	-	-
<i>Constitutional values - Citizenship</i>	<b>1</b>	<b>1</b>	-	-
<b>PC3.</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.	-	-	-	-
<b>PC4.</b> follow environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	<b>2</b>	<b>4</b>	-	-
<b>PC5.</b> recognize the significance of 21st Century Skills for employment	-	-	-	-
<b>PC6.</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	-	-	-	-
<i>Basic English Skills</i>	<b>2</b>	<b>3</b>	-	-
<b>PC7.</b> use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
<b>PC8.</b> read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
<b>PC9.</b> write short messages, notes, letters, e-mails etc. in English	-	-	-	-
<i>Career Development &amp; Goal Setting</i>	<b>1</b>	<b>2</b>	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC10.</b> understand the difference between job and career	-	-	-	-
<b>PC11.</b> prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
<i>Communication Skills</i>	<b>2</b>	<b>2</b>	-	-
<b>PC12.</b> follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
<b>PC13.</b> work collaboratively with others in a team	-	-	-	-
<i>Diversity &amp; Inclusion</i>	<b>1</b>	<b>2</b>	-	-
<b>PC14.</b> communicate and behave appropriately with all genders and PwD	-	-	-	-
<b>PC15.</b> escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
<i>Financial and Legal Literacy</i>	<b>2</b>	<b>3</b>	-	-
<b>PC16.</b> select financial institutions, products and services as per requirement	-	-	-	-
<b>PC17.</b> carry out offline and online financial transactions, safely and securely	-	-	-	-
<b>PC18.</b> identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
<b>PC19.</b> identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
<i>Essential Digital Skills</i>	<b>3</b>	<b>4</b>	-	-
<b>PC20.</b> operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
<b>PC21.</b> use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
<b>PC22.</b> use basic features of word processor, spreadsheets, and presentations	-	-	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Entrepreneurship</i>	<b>2</b>	<b>3</b>	-	-
<b>PC23.</b> identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
<b>PC24.</b> develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
<b>PC25.</b> identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
<i>Customer Service</i>	<b>1</b>	<b>2</b>	-	-
<b>PC26.</b> identify different types of customers	-	-	-	-
<b>PC27.</b> identify and respond to customer requests and needs in a professional manner.	-	-	-	-
<b>PC28.</b> follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship &amp; Jobs</i>	<b>2</b>	<b>3</b>	-	-
<b>PC29.</b> create a professional Curriculum vitae (Résumé)	-	-	-	-
<b>PC30.</b> search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
<b>PC31.</b> apply to identified job openings using offline /online methods as per requirement	-	-	-	-
<b>PC32.</b> answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
<b>PC33.</b> identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
<b>NOS Total</b>	<b>20</b>	<b>30</b>	-	-

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	DGT/VSQ/N0102
<b>NOS Name</b>	Employability Skills (60 Hours)
<b>Sector</b>	Cross Sectoral
<b>Sub-Sector</b>	Professional Skills
<b>Occupation</b>	Employability
<b>NSQF Level</b>	4
<b>Credits</b>	2
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	27/05/2024
<b>NSQC Clearance Date</b>	27/05/2021

## 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) (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
5. In case of successfully passing only certain number of NOSs, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.
6. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

## 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
AGR/N1014.Assist in setting up the greenhouse	30	40	-	30	100	40
AGR/N1008.Carry out greenhouse operations and maintain the greenhouse	30	40	-	30	100	50
AGR/N9903.Maintain health and safety at the workplace	40	25	-	35	100	5
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	0	0	50	5
<b>Total</b>	<b>120</b>	<b>135</b>	<b>0</b>	<b>0</b>	<b>350</b>	<b>100</b>

## Qualification Pack

### Acronyms

<b>NOS</b>	National Occupational Standard(s)
<b>NSQF</b>	National Skills Qualifications Framework
<b>QP</b>	Qualifications Pack
<b>TVET</b>	Technical and Vocational Education and Training
<b>PPE</b>	Personal Protective Equipment
<b>PPE</b>	Personal Protective Equipment

## Qualification Pack

### Glossary

<b>Sector</b>	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.
<b>Sub-sector</b>	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
<b>Occupation</b>	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
<b>Job role</b>	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
<b>Occupational Standards (OS)</b>	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.
<b>Performance Criteria (PC)</b>	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
<b>National Occupational Standards (NOS)</b>	NOS are occupational standards which apply uniquely in the Indian context.
<b>Qualifications Pack (QP)</b>	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.
<b>Unit Code</b>	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
<b>Unit Title</b>	Unit title gives a clear overall statement about what the incumbent should be able to do.
<b>Description</b>	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.
<b>Scope</b>	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.

### Qualification Pack

<b>Knowledge and Understanding (KU)</b>	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.
<b>Organisational Context</b>	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.
<b>Technical Knowledge</b>	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
<b>Core Skills/ Generic Skills (GS)</b>	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.
<b>Electives</b>	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.
<b>Options</b>	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.