

## Qualification Pack



# Mushroom Grower(Entrepreneur)

QP Code: AGR/Q7803

Version: 3.0

NSQF Level: 4

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## Qualification Pack

### Contents

AGR/Q7803: Mushroom Grower(Entrepreneur) .....	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/N7813: Prepare and pasteurise mushroom compost .....	5
AGR/N7814: Procure inputs and prepare the site for mushroom cultivation .....	10
AGR/N7815: Carry out mushroom cultivation .....	15
AGR/N7816: Maintain, harvest and process mushroom .....	22
AGR/N9908: Undertake basic entrepreneurial activities for small enterprise .....	27
AGR/N9903: Maintain health and safety at the workplace .....	34
DGT/VSQ/N0102: Employability Skills (60 Hours) .....	40
Assessment Guidelines and Weightage .....	47
<i>Assessment Guidelines</i> .....	47
<i>Assessment Weightage</i> .....	48
Acronyms .....	49
Glossary .....	50

## Qualification Pack

### AGR/Q7803: Mushroom Grower(Entrepreneur)

#### Brief Job Description

A Mushroom Grower(Entrepreneur) performs various activities in the process of cultivating mushroom such as preparing mushroom compost, spawning, maintenance, harvesting and post-harvest processing of mushroom.

#### Personal Attributes

The individual must be physically fit to work for long hours. The person must have attention to detail and problem-solving skills. Ability to read, write and co-ordinate with others are other important attributes required in this job role.

#### Applicable National Occupational Standards (NOS)

##### Compulsory NOS:

1. [AGR/N7813: Prepare and pasteurise mushroom compost](#)
2. [AGR/N7814: Procure inputs and prepare the site for mushroom cultivation](#)
3. [AGR/N7815: Carry out mushroom cultivation](#)
4. [AGR/N7816: Maintain, harvest and process mushroom](#)
5. [AGR/N9908: Undertake basic entrepreneurial activities for small enterprise](#)
6. [AGR/N9903: Maintain health and safety at the workplace](#)
7. [DGT/VSQ/N0102: Employability Skills \(60 Hours\)](#)

#### Qualification Pack (QP) Parameters

<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Agriculture Industries
<b>Occupation</b>	Agri-Entrepreneurship and Rural Enterprises
<b>Country</b>	India
<b>NSQF Level</b>	4

### Qualification Pack

<b>Credits</b>	13
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/NIL
<b>Minimum Educational Qualification &amp; Experience</b>	10th Class with 2 Years of experience relevant experience OR 10th Class (Pass and pursuing continuous regular schooling) OR Certificate-NSQF (Level- 3 with minimum education as 5th grade pass) with 2 Years 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>	30/12/2024
<b>NSQC Approval Date</b>	30/12/2021
<b>Version</b>	3.0
<b>Reference code on NQR</b>	2022/AGR/ASCI/06548
<b>NQR Version</b>	1.0

## Qualification Pack

### AGR/N7813: Prepare and pasteurise mushroom compost

#### Description

This OS unit is about preparing and pasteurising compost for the purpose of growing mushroom.

#### Scope

The scope covers the following :

- Arrange various materials to prepare mushroom compost
- Prepare and pasteurise the mushroom compost

#### Elements and Performance Criteria

##### *Arrange various materials to prepare mushroom compost*

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

- PC1.** select the appropriate method for preparing the compost such as long method/ short method according to the budget
- PC2.** arrange the base material required for preparing the compost such as wheat/ paddy straw, calcium ammonium nitrate, urea, etc.
- PC3.** select the appropriate ingredients to rectify mineral deficiencies; stabilise the effect of ammonium content, and ensure adequate aeration
- PC4.** determine different formulations of composting ingredients to achieve the required nitrogen and carbon ratio for mushroom compost
- PC5.** organise the appropriate tools, equipment and Personal Protective Equipment (PPE)

##### *Prepare and pasteurise the mushroom compost*

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

- PC6.** prepare a clean concrete floor to prepare the mushroom compost
- PC7.** apply the recommended quantity of water on the base material after spreading it on the floor
- PC8.** maintain the recommended level of moisture in the base material for the recommended duration
- PC9.** prepare a mixture of molasses, wheat bran and fertilizers maintaining the recommended ratio
- PC10.** apply a cover of wet gunny bags on the mixture to maintain the appropriate level of moisture
- PC11.** prepare the mushroom compost by mixing the base material and wet fertilizers
- PC12.** carry out turning of the mushroom compost as per the recommended turning schedule
- PC13.** add the recommended nutrients to the compost such as gypsum during turning
- PC14.** maintain the recommended level of ammonia and moisture in the compost
- PC15.** store the mushroom compost at the recommended temperature
- PC16.** pasteurise the mushroom compost to kill the harmful micro-organisms
- PC17.** arrange for protection of mushroom compost from pathogens or pests
- PC18.** use the relevant PPE and clothing
- PC19.** maintain the record of chemicals used in the preparation of mushroom compost

## Qualification Pack

### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** use of the relevant tools, equipment and PPE
- KU2.** applicable record-keeping requirements in the job role
- KU3.** the importance, types and function of compost in mushroom cultivation
- KU4.** long and short methods of preparing mushroom and the difference between them
- KU5.** appropriate ingredients to rectify mineral deficiencies, stabilise the effect of ammonium content and ensure adequate aeration during composting
- KU6.** base material required for preparing the compost such as wheat/ paddy straw, calcium ammonium nitrate, urea, etc.
- KU7.** different types of fertilisers used for preparing mushroom compost
- KU8.** the process of preparing mushroom compost
- KU9.** different formulations of composting ingredients to achieve the required nitrogen and carbon ratio for mushroom compost
- KU10.** importance of maintaining the appropriate moisture in the base material
- KU11.** conditions appropriate for the preparation and storage of mushroom compost
- KU12.** the importance and process of pasteurising mushroom compost
- KU13.** the process of compost turning and the turning schedule for mushroom compost
- KU14.** different ways of protecting mushroom compost from pathogens and pests

### Generic Skills (GS)

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

- GS1.** write work-related notes and maintain relevant records
- GS2.** read the relevant literature to get latest updates about the field of work
- GS3.** listen attentively to understand the information/ instructions being shared by the speaker
- GS4.** communicate clearly and politely with co-workers and clients
- GS5.** plan and prioritise tasks to ensure timely completion
- GS6.** evaluate all possible solutions to a problem to select the best one
- GS7.** co-ordinate with co-workers to achieve work objectives
- GS8.** identify possible disruptions to work and take appropriate preventive measures
- GS9.** take quick decisions to deal with workplace emergencies/ accidents

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Arrange various materials to prepare mushroom compost</i>	<b>18</b>	<b>20</b>	-	<b>14</b>
<b>PC1.</b> select the appropriate method for preparing the compost such as long method/ short method according to the budget	-	-	-	-
<b>PC2.</b> arrange the base material required for preparing the compost such as wheat/ paddy straw, calcium ammonium nitrate, urea, etc.	-	-	-	-
<b>PC3.</b> select the appropriate ingredients to rectify mineral deficiencies; stabilise the effect of ammonium content, and ensure adequate aeration	-	-	-	-
<b>PC4.</b> determine different formulations of composting ingredients to achieve the required nitrogen and carbon ratio for mushroom compost	-	-	-	-
<b>PC5.</b> organise the appropriate tools, equipment and Personal Protective Equipment (PPE)	-	-	-	-
<i>Prepare and pasteurise the mushroom compost</i>	<b>12</b>	<b>20</b>	-	<b>16</b>
<b>PC6.</b> prepare a clean concrete floor to prepare the mushroom compost	-	-	-	-
<b>PC7.</b> apply the recommended quantity of water on the base material after spreading it on the floor	-	-	-	-
<b>PC8.</b> maintain the recommended level of moisture in the base material for the recommended duration	-	-	-	-
<b>PC9.</b> prepare a mixture of molasses, wheat bran and fertilizers maintaining the recommended ratio	-	-	-	-
<b>PC10.</b> apply a cover of wet gunny bags on the mixture to maintain the appropriate level of moisture	-	-	-	-
<b>PC11.</b> prepare the mushroom compost by mixing the base material and wet fertilizers	-	-	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> carry out turning of the mushroom compost as per the recommended turning schedule	-	-	-	-
<b>PC13.</b> add the recommended nutrients to the compost such as gypsum during turning	-	-	-	-
<b>PC14.</b> maintain the recommended level of ammonia and moisture in the compost	-	-	-	-
<b>PC15.</b> store the mushroom compost at the recommended temperature	-	-	-	-
<b>PC16.</b> pasteurise the mushroom compost to kill the harmful micro-organisms	-	-	-	-
<b>PC17.</b> arrange for protection of mushroom compost from pathogens or pests	-	-	-	-
<b>PC18.</b> use the relevant PPE and clothing	-	-	-	-
<b>PC19.</b> maintain the record of chemicals used in the preparation of mushroom compost	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	AGR/N7813
<b>NOS Name</b>	Prepare and pasteurise mushroom compost
<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Agriculture Industries
<b>Occupation</b>	Agri Entrepreneurship & Rural Enterprises
<b>NSQF Level</b>	4
<b>Credits</b>	2
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	19/07/2023
<b>NSQC Clearance Date</b>	19/01/2023

## Qualification Pack

### AGR/N7814: Procure inputs and prepare the site for mushroom cultivation

#### Description

This OS unit is about procuring the inputs required for mushroom cultivation along with selecting an appropriate site and establishing a mushroom farm.

#### Scope

The scope covers the following :

- Procure the inputs for mushroom cultivation
- Prepare the site for mushroom cultivation

#### Elements and Performance Criteria

##### *Procure the inputs for mushroom cultivation*

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

- PC1.** select an appropriate variety of mushroom to grow according to the local climate, market demand and required investment
- PC2.** estimate the requirement of inputs such as mushroom spawn, fertilizer, pesticides, etc.
- PC3.** identify the vendors of the required inputs
- PC4.** select a vendor based on the quality of inputs
- PC5.** purchase the inputs in the required quantity
- PC6.** store the inputs as per the storage requirements

##### *Prepare the site for mushroom cultivation*

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

- PC7.** select a site for mushroom cultivation that does not have exposure to sunlight
- PC8.** examine the moisture and temperature levels to ensure favourable conditions for growing mushroom
- PC9.** determine that the site has access to inputs required for mushroom cultivation such as water, electricity and farm labour
- PC10.** check that the site has easy access to the local markets
- PC11.** ensure effective drainage of water from the site of cultivation
- PC12.** prepare a layout of the mushroom farm according to the growing conditions required for the selected variety of mushroom
- PC13.** establish the mushroom farm using the recommended materials such as timber, bamboo frame, synthetic fibre cloth, etc.
- PC14.** build a store room for storing mushroom farming inputs, tools and equipment

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

## Qualification Pack

- KU1.** different varieties of mushroom and the appropriate growing conditions
- KU2.** various inputs required for mushroom cultivation
- KU3.** the characteristics of good-quality mushroom spawn
- KU4.** fertilizers and pesticides appropriate for use in mushroom cultivation
- KU5.** the purpose and process of using mushroom spawns
- KU6.** storage requirements for mushroom spawn, fertilizers and pesticides
- KU7.** appropriate conditions for mushroom cultivation such as temperature and humidity
- KU8.** various material required for setting up a mushroom farm
- KU9.** the process of preparing the layout and establishing a mushroom farm
- KU10.** importance of having an effective drainage system at a mushroom farm

## Generic Skills (GS)

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

- GS1.** write work-related notes
- GS2.** communicate politely and professionally
- GS3.** read the relevant literature to learn about new latest developments in the field of work
- GS4.** listen attentively to understand the information/ instructions being shared by the speaker
- GS5.** plan and prioritise tasks to ensure timely completion
- GS6.** co-ordinate with co-workers to achieve work objectives
- GS7.** evaluate all possible solutions to a problem to select the best one
- GS8.** identify possible disruptions to work and take appropriate preventive measures
- GS9.** take quick decisions to deal with workplace emergencies/ accidents

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Procure the inputs for mushroom cultivation</i>	<b>14</b>	<b>24</b>	-	<b>18</b>
<b>PC1.</b> select an appropriate variety of mushroom to grow according to the local climate, market demand and required investment	-	-	-	-
<b>PC2.</b> estimate the requirement of inputs such as mushroom spawn, fertilizer, pesticides, etc.	-	-	-	-
<b>PC3.</b> identify the vendors of the required inputs	-	-	-	-
<b>PC4.</b> select a vendor based on the quality of inputs	-	-	-	-
<b>PC5.</b> purchase the inputs in the required quantity	-	-	-	-
<b>PC6.</b> store the inputs as per the storage requirements	-	-	-	-
<i>Prepare the site for mushroom cultivation</i>	<b>16</b>	<b>16</b>	-	<b>12</b>
<b>PC7.</b> select a site for mushroom cultivation that does not have exposure to sunlight	-	-	-	-
<b>PC8.</b> examine the moisture and temperature levels to ensure favourable conditions for growing mushroom	-	-	-	-
<b>PC9.</b> determine that the site has access to inputs required for mushroom cultivation such as water, electricity and farm labour	-	-	-	-
<b>PC10.</b> check that the site has easy access to the local markets	-	-	-	-
<b>PC11.</b> ensure effective drainage of water from the site of cultivation	-	-	-	-
<b>PC12.</b> prepare a layout of the mushroom farm according to the growing conditions required for the selected variety of mushroom	-	-	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> establish the mushroom farm using the recommended materials such as timber, bamboo frame, synthetic fibre cloth, etc.	-	-	-	-
<b>PC14.</b> build a store room for storing mushroom farming inputs, tools and equipment	-	-	-	-
<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/N7814
<b>NOS Name</b>	Procure inputs and prepare the site for mushroom cultivation
<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Agriculture Industries
<b>Occupation</b>	Agri Entrepreneurship & Rural Enterprises
<b>NSQF Level</b>	4
<b>Credits</b>	2
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	19/07/2023
<b>NSQC Clearance Date</b>	19/01/2023

## Qualification Pack

### AGR/N7815: Carry out mushroom cultivation

#### Description

This OS unit is about carrying out spawning and preparing casing soil. It also includes practicing resource optimisation at work.

#### Scope

The scope covers the following :

- Carry out spawning
- Prepare and apply casing soil
- Optimise resource utilisation
- Perform waste management

#### Elements and Performance Criteria

##### *Carry out spawning*

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

- PC1.** select an appropriate method of spawning such as spot spawning, surface spawning and layer spawning
- PC2.** create holes of the recommended depth maintaining appropriate space in case of spot spawning
- PC3.** plant lumps of spawn in the holes
- PC4.** apply a cover of compost on the holes after planting spawns
- PC5.** spread spawn evenly on the top layer of the compost in case of surface spawning
- PC6.** mix spawn in the compost at the recommended depth
- PC7.** apply a thin layer of compost on spawn mixture
- PC8.** prepare a mixture of mushroom spawn and compost maintaining the recommended ratio in the layering method
- PC9.** create further layers of mushroom compost as per the layering method with mushroom spawns applied in the recommended quantity
- PC10.** apply a thin layer of compost on the top layer after mixing spawn and a cover of the recommended material on the compost bed
- PC11.** spread the mixture on racks or fill in polythene bags as planned
- PC12.** apply water in the recommended quantity using a spray pump
- PC13.** maintain the recommended temperature and relative humidity in the cultivation area

##### *Prepare and apply casing soil*

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

- PC14.** prepare the casing soil using the recommended material such as ash of the rice husk, calcium carbonate and sterilised soil
- PC15.** pasteurise the compost and casing soil with formalin solution
- PC16.** apply a cover of polythene on the compost after making it wet

## Qualification Pack

- PC17.** remove the polythene cover after the recommended duration
- PC18.** carry out compost turning to remove the smell of formalin
- PC19.** apply casing mixture when the mushroom mycelium spreads completely
- PC20.** apply water in the recommended quantity using a sprinkler
- PC21.** maintain the recommended temperature, Potential of Hydrogen (pH) and relative humidity
- PC22.** arrange for protection of growing mushroom from dry air

### *Optimise resource utilisation*

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

- PC23.** optimise the usage of various materials, water and other resources in various tasks and processes
- PC24.** plug water leakages to prevent the wastage of water

### *Perform waste management*

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

- PC25.** segregate waste into different categories
- PC26.** dispose the non-recyclable waste appropriately
- PC27.** deposit the recyclable and reusable material at the identified location

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** different methods of spawning mushroom seeds such as spot spawning, surface spawning, layer spawning
- KU2.** the process of spawning and the necessary materials required for it
- KU3.** water, temperature and relative humidity requirements during the spawning process
- KU4.** the process of preparing casing soil and the required ingredients
- KU5.** how to pasteurise mushroom compost and casing soil
- KU6.** approved chemicals and fertilizers and their safe use
- KU7.** the importance and process of compost turning
- KU8.** the importance and ways of protecting casing soil from dry air
- KU9.** importance of following environmental and ecological best practices to minimise the impact on the environment
- KU10.** benefits of resource optimisation
- KU11.** common practices of conserving electricity
- KU12.** different methods of recycling and disposing waste
- KU13.** common sources of pollution and ways to minimise it

## Generic Skills (GS)

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

- GS1.** maintain work-related records

## Qualification Pack

- GS2.** read the health and safety manual
- GS3.** listen attentively to understand the information/ instructions being shared by the speaker
- GS4.** communicate clearly and politely with co-workers and clients
- GS5.** plan and prioritise tasks to ensure timely completion
- GS6.** identify possible disruptions to work and take appropriate preventive measures
- GS7.** take quick decisions to deal with workplace emergencies/ accidents
- GS8.** evaluate all possible solutions to a problem to select the best one
- GS9.** co-ordinate with co-workers to achieve work objectives

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out spawning</i>	<b>10</b>	<b>12</b>	-	<b>12</b>
<b>PC1.</b> select an appropriate method of spawning such as spot spawning, surface spawning and layer spawning	-	-	-	-
<b>PC2.</b> create holes of the recommended depth maintaining appropriate space in case of spot spawning	-	-	-	-
<b>PC3.</b> plant lumps of spawn in the holes	-	-	-	-
<b>PC4.</b> apply a cover of compost on the holes after planting spawns	-	-	-	-
<b>PC5.</b> spread spawn evenly on the top layer of the compost in case of surface spawning	-	-	-	-
<b>PC6.</b> mix spawn in the compost at the recommended depth	-	-	-	-
<b>PC7.</b> apply a thin layer of compost on spawn mixture	-	-	-	-
<b>PC8.</b> prepare a mixture of mushroom spawn and compost maintaining the recommended ratio in the layering method	-	-	-	-
<b>PC9.</b> create further layers of mushroom compost as per the layering method with mushroom spawns applied in the recommended quantity	-	-	-	-
<b>PC10.</b> apply a thin layer of compost on the top layer after mixing spawn and a cover of the recommended material on the compost bed	-	-	-	-
<b>PC11.</b> spread the mixture on racks or fill in polythene bags as planned	-	-	-	-
<b>PC12.</b> apply water in the recommended quantity using a spray pump	-	-	-	-
<b>PC13.</b> maintain the recommended temperature and relative humidity in the cultivation area	-	-	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare and apply casing soil</i>	<b>8</b>	<b>10</b>	-	<b>8</b>
<b>PC14.</b> prepare the casing soil using the recommended material such as ash of the rice husk, calcium carbonate and sterilised soil	-	-	-	-
<b>PC15.</b> pasteurise the compost and casing soil with formalin solution	-	-	-	-
<b>PC16.</b> apply a cover of polythene on the compost after making it wet	-	-	-	-
<b>PC17.</b> remove the polythene cover after the recommended duration	-	-	-	-
<b>PC18.</b> carry out compost turning to remove the smell of formalin	-	-	-	-
<b>PC19.</b> apply casing mixture when the mushroom mycelium spreads completely	-	-	-	-
<b>PC20.</b> apply water in the recommended quantity using a sprinkler	-	-	-	-
<b>PC21.</b> maintain the recommended temperature, Potential of Hydrogen (pH) and relative humidity	-	-	-	-
<b>PC22.</b> arrange for protection of growing mushroom from dry air	-	-	-	-
<i>Optimise resource utilisation</i>	<b>6</b>	<b>8</b>	-	<b>6</b>
<b>PC23.</b> optimise the usage of various materials, water and other resources in various tasks and processes	-	-	-	-
<b>PC24.</b> plug water leakages to prevent the wastage of water	-	-	-	-
<i>Perform waste management</i>	<b>6</b>	<b>10</b>	-	<b>4</b>
<b>PC25.</b> segregate waste into different categories	-	-	-	-
<b>PC26.</b> dispose the non-recyclable waste appropriately	-	-	-	-
<b>PC27.</b> deposit the recyclable and reusable material at the identified location	-	-	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>NOS Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	AGR/N7815
<b>NOS Name</b>	Carry out mushroom cultivation
<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Agriculture Industries
<b>Occupation</b>	Agri Entrepreneurship & Rural Enterprises
<b>NSQF Level</b>	4
<b>Credits</b>	3
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	19/07/2023
<b>NSQC Clearance Date</b>	19/01/2023

## Qualification Pack

### AGR/N7816: Maintain, harvest and process mushroom

#### Description

This OS unit is about maintaining mushroom in a controlled environment and carrying out harvest and post-harvest activities.

#### Scope

The scope covers the following :

- Maintain optimum growth of the mushroom
- Harvest the mushroom
- Store, pack and transport mushroom

#### Elements and Performance Criteria

##### *Maintain the mushroom's optimum growth*

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

- PC1.** inspect the cropping bed for any pests and fungal diseases
- PC2.** apply the recommended pesticides/ insecticides/ fungicides using sterilised PPE as per the manufacturer's instructions
- PC3.** maintain the recommended temperature, relative humidity and air circulation for the optimum growth of mushroom
- PC4.** remove the spent compost from the cultivation area to prevent contamination
- PC5.** use sterilised pots, containers, tools and equipment to control nematodes, mites, insect pests, etc.

##### *Harvest the mushroom*

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

- PC6.** examine the mushroom to identify the relevant growth indicators appropriate for harvesting
- PC7.** apply the recommended harvesting techniques to harvest mushroom
- PC8.** use the approved cleaning agents to remove soil particles, compost, and other foreign materials from the harvested mushroom
- PC9.** remove the water content from the mushroom
- PC10.** sort and grade the harvested mushroom on the relevant parameters

##### *Store, pack and transport mushroom*

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

- PC11.** prepare the storage area to ensure it is clean, dry and ventilated before storing mushroom
- PC12.** apply the relevant treatment in the storage area to remove any pesticides/ insecticides/ rodents
- PC13.** store the harvested mushroom at the recommended temperature and humidity
- PC14.** arrange for the protection of mushroom from dust, rain, livestock and direct sunlight
- PC15.** select the appropriate packing material considering the distance to the target market and required shelf-life

## Qualification Pack

- PC16.** pack the mushroom in the packs of appropriate capacity as per the requirement
- PC17.** apply labels on the mushroom packs containing the relevant information as per the regulatory requirements
- PC18.** arrange for appropriate transport to protect mushroom during transit to the market
- PC19.** maintain the record of harvested, packed and transported mushroom

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** different varieties of mushroom and their maintenance requirements
- KU2.** common mushroom pests, insects, fungi, diseases and their remedy
- KU3.** safe use of appropriate pesticides/ insecticides/ fungicides
- KU4.** various measures to protect the mushroom cultivation area
- KU5.** optimum temperature and relative humidity requirements for the growth of mushroom
- KU6.** different growth indicators to identify the readiness of mushroom for being harvested
- KU7.** appropriate techniques for harvesting mushroom
- KU8.** safe methods of post-harvest processing of mushroom
- KU9.** various parameters to sort and grade the harvested mushroom
- KU10.** storage requirements for different varieties of mushroom
- KU11.** appropriate packing material and mode of transport for mushroom
- KU12.** different uses of spent mushroom compost
- KU13.** the importance of using sterilised PPE and maintaining cleanliness at a mushroom farm

## Generic Skills (GS)

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

- GS1.** maintain work-related records
- GS2.** communicate clearly and politely with co-workers and clients
- GS3.** read the relevant literature to get information about the latest developments in the field of work
- GS4.** plan and prioritise tasks to ensure timely completion
- GS5.** take quick decisions to deal with workplace emergencies/ accidents
- GS6.** listen attentively to understand the information/ instructions being shared by the speaker
- GS7.** identify possible disruptions to work and take appropriate preventive measures
- GS8.** co-ordinate with co-workers to achieve work objectives
- GS9.** evaluate all 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>Maintain the mushroom's optimum growth</i>	<b>10</b>	<b>16</b>	-	<b>8</b>
<b>PC1.</b> inspect the cropping bed for any pests and fungal diseases	-	-	-	-
<b>PC2.</b> apply the recommended pesticides/ insecticides/ fungicides using sterilised PPE as per the manufacturer's instructions	-	-	-	-
<b>PC3.</b> maintain the recommended temperature, relative humidity and air circulation for the optimum growth of mushroom	-	-	-	-
<b>PC4.</b> remove the spent compost from the cultivation area to prevent contamination	-	-	-	-
<b>PC5.</b> use sterilised pots, containers, tools and equipment to control nematodes, mites, insect pests, etc.	-	-	-	-
<i>Harvest the mushroom</i>	<b>12</b>	<b>14</b>	-	<b>12</b>
<b>PC6.</b> examine the mushroom to identify the relevant growth indicators appropriate for harvesting	-	-	-	-
<b>PC7.</b> apply the recommended harvesting techniques to harvest mushroom	-	-	-	-
<b>PC8.</b> use the approved cleaning agents to remove soil particles, compost, and other foreign materials from the harvested mushroom	-	-	-	-
<b>PC9.</b> remove the water content from the mushroom	-	-	-	-
<b>PC10.</b> sort and grade the harvested mushroom on the relevant parameters	-	-	-	-
<i>Store, pack and transport mushroom</i>	<b>8</b>	<b>10</b>	-	<b>10</b>
<b>PC11.</b> prepare the storage area to ensure it is clean, dry and ventilated before storing mushroom	-	-	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> apply the relevant treatment in the storage area to remove any pesticides/ insecticides/ rodents	-	-	-	-
<b>PC13.</b> store the harvested mushroom at the recommended temperature and humidity	-	-	-	-
<b>PC14.</b> arrange for the protection of mushroom from dust, rain, livestock and direct sunlight	-	-	-	-
<b>PC15.</b> select the appropriate packing material considering the distance to the target market and required shelf-life	-	-	-	-
<b>PC16.</b> pack the mushroom in the packs of appropriate capacity as per the requirement	-	-	-	-
<b>PC17.</b> apply labels on the mushroom packs containing the relevant information as per the regulatory requirements	-	-	-	-
<b>PC18.</b> arrange for appropriate transport to protect mushroom during transit to the market	-	-	-	-
<b>PC19.</b> maintain the record of harvested, packed and transported mushroom	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	AGR/N7816
<b>NOS Name</b>	Maintain, harvest and process mushroom
<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Agriculture Industries
<b>Occupation</b>	Agri Entrepreneurship & Rural Enterprises
<b>NSQF Level</b>	4
<b>Credits</b>	2
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	19/07/2023
<b>NSQC Clearance Date</b>	19/01/2023

## Qualification Pack

### AGR/N9908: Undertake basic entrepreneurial activities for small enterprise

#### Description

This OS unit is about undertaking basic entrepreneurial or business activities in the agriculture sector.

#### Scope

The scope covers the following :

- Plan the agricultural enterprise/ business
- Manage the agricultural production process
- Manage the post-production and marketing processes

#### Elements and Performance Criteria

##### *Plan the agricultural enterprise/ business*

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

- PC1.** analyse the demand and supply of the relevant agricultural produce in the market
- PC2.** identify the target customers and assess their needs and expectations with respect to the quality and price of the produce
- PC3.** identify various types of agricultural entrepreneurship/ business opportunities
- PC4.** plan agricultural production with the use of relevant and efficient technologies for availing funds
- PC5.** identify appropriate and authentic advisory services/Government authority for skill upgradation to successfully plan and implement business activities
- PC6.** prepare a basic business plan for the agricultural entrepreneurship/business activities
- PC7.** identify appropriate sources of funding for the agricultural entrepreneurship/ business
- PC8.** coordinate with the relevant government authorities to subscribe to the relevant government schemes and programs to benefit from them
- PC9.** ensure compliance with the government structural reforms and framework along with the applicable rules and regulations while setting up the agricultural enterprise/ business

##### *Manage the agricultural production process*

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

- PC10.** select and arrange the necessary resources for the business operations
- PC11.** ensure the use of relevant and efficient production technologies as per planning and availability of funds
- PC12.** follow the recommended practices for efficient input resource management
- PC13.** optimise the production processes and output through the amalgamation of existing practices with smart technologies
- PC14.** follow the recommended sustainability practices during agricultural production to prevent adverse impacts on the environment and produce viz. deforestation, loss of biodiversity, soil degradation, etc.

## Qualification Pack

### *Manage the post-production and marketing processes*

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

- PC15.** ensure the availability of proper storage infrastructures and facilities post-production of the produce as per the industry quality standards
- PC16.** collect information related to the wholesale and retail price of produce
- PC17.** calculate the costs incurred and determine the price of the produce for profitability
- PC18.** ensure that the cost of production, transportation, and marketing are considered while calculating the cost and setting the price for the produce
- PC19.** collect information related to various subsidies/funds offered by the government, authorised state units and other financial institutions involved with the promotion of the produce
- PC20.** select appropriate marketing channels for the produce, considering the relevant requirements and constraints
- PC21.** identify various risks to production and post-production processes and manage them appropriately
- PC22.** undertake outreach programs to promote agricultural products and services, and expand agri-business
- PC23.** prepare and execute a marketing plan considering the 4Ps i.e. product, price, promotion, and place and 4As i.e. acceptability, affordability, accessibility, and awareness
- PC24.** use the relevant digital services such as e-commerce, e-payments, electronic record-keeping, etc.
- PC25.** use efficient post-production logistics means to improve the supply quantity, reduce the cost to the consumer, and increase demand consequently
- PC26.** ensure all the relevant information such as quality and quantity of produce, date of manufacture, batch number, and sale is recorded electronically and/ or manually
- PC27.** coordinate with the various stakeholders for efficient and sustainable agri-business growth and development

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** how to analyse the demand and supply of the relevant agricultural produce in the market
- KU2.** the process of identifying the target customers and assess their needs and expectations with respect to the quality and price of the produce
- KU3.** how to identify various types of agricultural entrepreneurship/ business opportunities
- KU4.** how to prepare a basic business plan for the agricultural entrepreneurship/business activities
- KU5.** appropriate sources of funding for the agricultural entrepreneurship/ businesses
- KU6.** the relevant government schemes and programs
- KU7.** the importance of ensuring compliance with the government structural reforms and framework, along with the applicable rules and regulations
- KU8.** various resources required for agricultural production
- KU9.** the process of planning agricultural production and the use of relevant technologies to enhance production

## Qualification Pack

- KU10.** the importance of ensuring no cause adverse impact on the environment and produce during production
- KU11.** the recommended practices to be followed for efficient input resource management
- KU12.** the process of optimising the production processes and output through the amalgamation of existing practices with smart technologies
- KU13.** the recommended sustainability practices to be followed during agricultural production to prevent and deal with deforestation, loss of biodiversity, soil degradation, etc.
- KU14.** how to collect information related to the wholesale and retail price of agricultural produce
- KU15.** how to calculate the economics of the produce viz. production cost, price of the produce, B:C Ratio etc.
- KU16.** relevant government schemes with the provision of subsidies/funds for the promotion of agricultural produce
- KU17.** the process of selecting appropriate marketing channels for marketing agricultural produce, and the applicable requirements and constraints
- KU18.** the relevant buyers of different types of agricultural produce such as co-operatives, retailers, local vendors, wholesalers, e-trading portals, marketing companies, exporters, etc.
- KU19.** how to identify and manage various risks to production and post-production processes
- KU20.** how to undertake outreach programs to promote agricultural products and services, and expand agri-business
- KU21.** the 4Ps i.e. product, price, promotion, and place and 4As i.e. acceptability, affordability, accessibility, and awareness considered while preparing and executing a marketing plan
- KU22.** use of the relevant digital services such as e-commerce, e-payments, electronic record-keeping, etc.
- KU23.** the importance of using efficient post-production logistics
- KU24.** the importance of maintaining various records accurately

## Generic Skills (GS)

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

- GS1.** maintain work-related notes and records
- GS2.** read the relevant literature to get the latest updates about the field work
- GS3.** communicate politely and professionally
- GS4.** listen attentively to understand the information being shared
- GS5.** plan and schedule tasks for efficient time management
- GS6.** identify possible disruptions to work and take appropriate preventive measures
- GS7.** take quick decisions to deal with workplace emergencies/ accident
- GS8.** evaluate all 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>Plan the agricultural enterprise/ business</i>	<b>10</b>	<b>14</b>	-	<b>10</b>
<b>PC1.</b> analyse the demand and supply of the relevant agricultural produce in the market	-	-	-	-
<b>PC2.</b> identify the target customers and assess their needs and expectations with respect to the quality and price of the produce	-	-	-	-
<b>PC3.</b> identify various types of agricultural entrepreneurship/ business opportunities	-	-	-	-
<b>PC4.</b> plan agricultural production with the use of relevant and efficient technologies for availing funds	-	-	-	-
<b>PC5.</b> identify appropriate and authentic advisory services/Government authority for skill upgradation to successfully plan and implement business activities	-	-	-	-
<b>PC6.</b> prepare a basic business plan for the agricultural entrepreneurship/business activities	-	-	-	-
<b>PC7.</b> identify appropriate sources of funding for the agricultural entrepreneurship/ business	-	-	-	-
<b>PC8.</b> coordinate with the relevant government authorities to subscribe to the relevant government schemes and programs to benefit from them	-	-	-	-
<b>PC9.</b> ensure compliance with the government structural reforms and framework along with the applicable rules and regulations while setting up the agricultural enterprise/ business	-	-	-	-
<i>Manage the agricultural production process</i>	<b>8</b>	<b>10</b>	-	<b>8</b>
<b>PC10.</b> select and arrange the necessary resources for the business operations	-	-	-	-
<b>PC11.</b> ensure the use of relevant and efficient production technologies as per planning and availability of funds	-	-	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> follow the recommended practices for efficient input resource management	-	-	-	-
<b>PC13.</b> optimise the production processes and output through the amalgamation of existing practices with smart technologies	-	-	-	-
<b>PC14.</b> follow the recommended sustainability practices during agricultural production to prevent adverse impacts on the environment and produce viz. deforestation, loss of biodiversity, soil degradation, etc.	-	-	-	-
<i>Manage the post-production and marketing processes</i>	<b>12</b>	<b>16</b>	-	<b>12</b>
<b>PC15.</b> ensure the availability of proper storage infrastructures and facilities post-production of the produce as per the industry quality standards	-	-	-	-
<b>PC16.</b> collect information related to the wholesale and retail price of produce	-	-	-	-
<b>PC17.</b> calculate the costs incurred and determine the price of the produce for profitability	-	-	-	-
<b>PC18.</b> ensure that the cost of production, transportation, and marketing are considered while calculating the cost and setting the price for the produce	-	-	-	-
<b>PC19.</b> collect information related to various subsidies/funds offered by the government, authorised state units and other financial institutions involved with the promotion of the produce	-	-	-	-
<b>PC20.</b> select appropriate marketing channels for the produce, considering the relevant requirements and constraints	-	-	-	-
<b>PC21.</b> identify various risks to production and post-production processes and manage them appropriately	-	-	-	-
<b>PC22.</b> undertake outreach programs to promote agricultural products and services, and expand agri-business	-	-	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC23.</b> prepare and execute a marketing plan considering the 4Ps i.e. product, price, promotion, and place and 4As i.e. acceptability, affordability, accessibility, and awareness	-	-	-	-
<b>PC24.</b> use the relevant digital services such as e-commerce, e-payments, electronic record-keeping, etc.	-	-	-	-
<b>PC25.</b> use efficient post-production logistics means to improve the supply quantity, reduce the cost to the consumer, and increase demand consequently	-	-	-	-
<b>PC26.</b> ensure all the relevant information such as quality and quantity of produce, date of manufacture, batch number, and sale is recorded electronically and/ or manually	-	-	-	-
<b>PC27.</b> coordinate with the various stakeholders for efficient and sustainable agri-business growth and development	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	AGR/N9908
<b>NOS Name</b>	Undertake basic entrepreneurial activities for small enterprise
<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>	3.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	25/02/2024
<b>NSQC Clearance Date</b>	25/02/2021

## 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>	28/02/2026
<b>NSQC Clearance Date</b>	28/02/2023

## Assessment Guidelines and Assessment Weightage

### Assessment Guidelines

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.

The assessment for the theory part will be based on knowledge bank of questions created by the SSC.

Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).

Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.

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.

In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

## 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/N7813.Prepare and pasteurise mushroom compost	30	40	-	30	100	25
AGR/N7814.Procure inputs and prepare the site for mushroom cultivation	30	40	-	30	100	25
AGR/N7815.Carry out mushroom cultivation	30	40	-	30	100	15
AGR/N7816.Maintain, harvest and process mushroom	30	40	-	30	100	20
AGR/N9908.Undertake basic entrepreneurial activities for small enterprise	30	40	-	30	100	5
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>210</b>	<b>255</b>	<b>0</b>	<b>0</b>	<b>650</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.