

Qualification Pack



Assistant Developer-Microforest

QP Code: AGR/Q6110

Version: 1.0

NSQF Level: 2

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AGR/Q6110: Assistant Developer-Microforest

Brief Job Description

An Assistant Developer-Microforest prepares site and make design, create and maintains small, urban forest by using local biomass

Personal Attributes

The individual must be physically fit to work for extended durations both indoor and outdoor with the ability to make appropriate decisions independently. The person must have strong verbal and written communication skills to interact with various stakeholders. Analytical and problem-solving skills are the other important requirements in this job role.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [AGR/N6139: Understand the basic components of making an urban forest](#)
2. [AGR/N6140: Follow the process of making a man-made forest](#)
3. [AGR/N6141: Maintain an urban forest](#)
4. [AGR/N6142: Follow procedures to prepare natural manure and nutrients](#)
5. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Agriculture
Sub-Sector	Forestry, Environment and Renewable Energy Management
Occupation	Agro-Forestry Management
Country	India
NSQF Level	2
Credits	7
Aligned to NCO/ISCO/ISIC Code	NCO-2015/2132.1000

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Minimum Educational Qualification & Experience	No formal education prescribed with NA of experience
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	29/09/2026
NSQC Approval Date	29/09/2023
Version	1.0
Reference code on NQR	QG-02-AG-01005-2023-V1-ASCI
NQR Version	1.0

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AGR/N6139: Understand the basic components of making an urban forest

Description

This OS unit is about basics concepts of making an urban forest and basic tenets, conditions and limitations of Miyawaki forests

Scope

The scope covers the following :

- Grasp the basics concept of forest
- Comprehend basic tenets of Vrikshayurveda/Miyawaki forests
- Assimilate basic conditions required for Vrikshayurveda/Miyawaki forests

Elements and Performance Criteria

Grasp the basics concept of forest

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

- PC1.** Comprehend the meaning of forest and their constituents, elements and benefits
- PC2.** Recognize the meaning of a natural forest and the types, characteristics, layers of a natural-forest, interaction between their components, nurturing of forest and evolution of forest
- PC3.** Assimilate the concept of made forest and various techniques of manmade-forests
- PC4.** distinguish between (a) Manmade Forest Vs Natural Forest (b) Agro-forestry Plantation and Forest-Making
- PC5.** Comprehend the five basic elements of the Forest being a micro-cosmos of the planet-earth
- PC6.** Perceive interaction of the five basic-elements of forest and their effects
- PC7.** Classify the inhabitants of forest as per modern environmental-science
- PC8.** Recognize the niche of various species of plants and animals and their co-existence, co-operation and competition
- PC9.** Comprehend interplay of biotic and abiotic factors in the process of forest evolution
- PC10.** Exemplify how Forests are self-sustaining eco-zones
- PC11.** Explore Ancient and Modern Techniques of forest making
- PC12.** Recognize Panch-Tatva: Element of Forests- Earth, Air, Water, Sunlight and Space
- PC13.** cognize how the Panch-Tatva will effect urban forest making
- PC14.** Figure out Ancient Indian techniques of Forest-making-- Vedic-Van, Nakshatras-Van, Navagrahas-Van, Rashi-Van, Vrikshayurveda, Panchvati-forests
- PC15.** Comprehend the concept of Urban forestry and their management
- PC16.** Comprehend how the forests naturally originate – Primary succession and secondary succession.
- PC17.** Interpret forest food-chain
- PC18.** Make out how forests serve as a buffer in natural disasters like flood ,rainfalls etc.
- PC19.** Figure out how forest offer watershed protection, prevent soil erosion and mitigate climate change

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PC20. Prepare table of native and local trees of various Indian states and UTs

PC21. Enlist Reasons for deforestation in the world and their impact

Comprehend basic tenets of Vrikshayurveda/Miyawaki forests

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

PC22. Ensure that the selected trees are local, native and original trees of the area as these trees grow very well in local conditions owing to natural selection

PC23. ensure bio-diversity of local trees is maintained so that there is richness in flora i.e. different varieties of trees

PC24. avoid plating of exotic or foreign species plants

PC25. plant tree-saplings as if they exist in the nature

PC26. plant trees in very close proximity preferably 2-3 trees in the 1 square meter since tree develop as a family and support each other in growing through exchange of food and nutrients.

PC27. Create an eco-system where big trees should be complemented by small and auxiliary trees, shrubs or creepers.

PC28. Grow urban forest in natural environment without/least human-interference

Assimilate basic conditions required for Vrikshayurveda/Miyawaki forests

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

PC29. Carry out rigorous initial site survey and research of potential natural vegetation.

PC30. Select a community of variety of local trees for planting

PC31. Identify and collect a large number of various native seeds, locally or nearby and in a comparable geo-climatic context.

PC32. select the saplings or seeds which is local to selected site

PC33. propagate the seed in local area and germinated in a local nursery

PC34. prepare soil cover if it is very degraded by adding local bio mass in the soil and Soil should have perforators and retainers

PC35. cover and protect the roots by mulching the soil cover with organic material

PC36. carryout plantation respecting biodiversity inspired by the model of the natural forest.

PC37. carryout dense plantation of very young seedlings which already have a mature root system. Check the presence of symbiotic bacteria and fungi in matured root system

PC38. carryout plantations randomly distributed in space in the way plants are distributed in a clearing or at the edge of the natural forest, not in rows or staggered

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. relevant applicable government legislation, standards, policies, and procedures at work

KU2. relevant health and safety requirements applicable to the work environment

KU3. meaning of forest, their constituents, types, benefits of forests- direct and indirect

KU4. classification of forests - High forests, coppice forests, virgin forest and second growth forests, pure and mixed forests etc.

KU5. Elements of a Forest: Biotic and Abiotic,

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- KU6.** FAO definition of Forests
- KU7.** Agroforestry - farm forestry, social forestry, joint forest management - concepts, programmes and objectives
- KU8.** Natural forest and the types, Characteristics and Layers of a Natural-Forest, interaction between their components, nurturing of forest and evolution of forest
- KU9.** self-sustenance, interdependent and self-reviving ecosystem of natural forest
- KU10.** concept of made Forest and various techniques of Manmade-Forests
- KU11.** Difference between-(1) Manmade Forest Vs Natural Forest (2) Ancient and Modern Techniques of forest making (3) Agro-forestry Plantation and Forest-Making
- KU12.** Panch-Tatva: Element of Forests- Earth, Air, Water, Sunlight and Space
- KU13.** Ancient Indian techniques of Forest-making-- Vedic-Van, Nakshatras-Van, Navagrahas-Van, Rashi-Van, Vrikshayurveda, Panchvati-forests
- KU14.** Modern technique of Forest Making: Miyawaki, Its basic tenets, Its application, Limitations of Miyawaki
- KU15.** five basic elements of the Forest being a micro-cosmos of the planet-earth
- KU16.** interaction of the five basic-elements of forest and their effects
- KU17.** inhabitants of forest as per modern environmental-science
- KU18.** biotic and abiotic inhabitants of forest
- KU19.** niche of various species of plants and animals and their co-existence, co-operation and competition
- KU20.** Global warming - forestry options for mitigation and adaptation - carbon sequestration
- KU21.** natural vegetation restoration of degraded land
- KU22.** how Forests are self-sustaining eco-zones
- KU23.** forest food-chain and Biodiversity of forest
- KU24.** Forests serve as a buffer in natural disasters like flood and rainfalls
- KU25.** forest offer watershed protection, prevent soil erosion and mitigate climate change
- KU26.** General problems of forest development and economy.
- KU27.** Forest based industries in the developed and developing countries.
- KU28.** Urban forestry - definition and scope - uses of urban forests
- KU29.** Management of urban forest-Arbiculture and its importance in urban forestry
- KU30.** National and state level programmes on degraded lands/ wasteland development
- KU31.** how the forests naturally originate - Primary succession and secondary succession
- KU32.** native and local trees of various Indian states and UTs
- KU33.** Reasons for deforestation in the world and their impact
- KU34.** reforestation and afforestation
- KU35.** three distinct layers in any Natural-forest viz, Forest-canopy, Forest-floor and Forest-soil.

Generic Skills (GS)

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

- GS1.** write work-related notes

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- GS2.** read the relevant guides and manuals
- GS3.** communicate clearly and politely
- GS4.** listen attentively to understand the information/ instructions being given
- GS5.** plan and prioritise tasks to ensure timely completion
- GS6.** take quick decisions to deal with workplace emergencies/ accidents
- GS7.** identify possible disruptions to work and take preventive measures
- GS8.** co-ordinate with co-workers to achieve the work objectives

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Grasp the basics concept of forest</i>	10	5	-	5
PC1. Comprehend the meaning of forest and their constituents, elements and benefits	-	-	-	-
PC2. Recognize the meaning of a natural forest and the types, characteristics, layers of a natural-forest, interaction between their components, nurturing of forest and evolution of forest	-	-	-	-
PC3. Assimilate the concept of made forest and various techniques of manmade-forests	-	-	-	-
PC4. distinguish between (a) Manmade Forest Vs Natural Forest (b) Agro-forestry Plantation and Forest-Making	-	-	-	-
PC5. Comprehend the five basic elements of the Forest being a micro-cosmos of the planet-earth	-	-	-	-
PC6. Perceive interaction of the five basic-elements of forest and their effects	-	-	-	-
PC7. Classify the inhabitants of forest as per modern environmental-science	-	-	-	-
PC8. Recognize the niche of various species of plants and animals and their co-existence, co-operation and competition	-	-	-	-
PC9. Comprehend interplay of biotic and abiotic factors in the process of forest evolution	-	-	-	-
PC10. Exemplify how Forests are self-sustaining eco-zones	-	-	-	-
PC11. Explore Ancient and Modern Techniques of forest making	-	-	-	-
PC12. Recognize Panch-Tatva: Element of Forests-Earth, Air, Water, Sunlight and Space	-	-	-	-
PC13. cognize how the Panch-Tatva will effect urban forest making	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. Figure out Ancient Indian techniques of Forest-making-- Vedic-Van, Nakshatras-Van, Navagrahas-Van, Rashi-Van, Vrikshayurveda, Panchvati-forests	-	-	-	-
PC15. Comprehend the concept of Urban forestry and their management	-	-	-	-
PC16. Comprehend how the forests naturally originate – Primary succession and secondary succession.	-	-	-	-
PC17. Interpret forest food-chain	-	-	-	-
PC18. Make out how forests serve as a buffer in natural disasters like flood ,rainfalls etc.	-	-	-	-
PC19. Figure out how forest offer watershed protection, prevent soil erosion and mitigate climate change	-	-	-	-
PC20. Prepare table of native and local trees of various Indian states and UTs	-	-	-	-
PC21. Enlist Reasons for deforestation in the world and their impact	-	-	-	-
<i>Comprehend basic tenets of Vrikshayurveda/Miyawaki forests</i>	5	5	-	5
PC22. Ensure that the selected trees are local, native and original trees of the area as these trees grow very well in local conditions owing to natural selection	-	-	-	-
PC23. ensure bio-diversity of local trees is maintained so that there is richness in flora i.e. different varieties of trees	-	-	-	-
PC24. avoid plating of exotic or foreign species plants	-	-	-	-
PC25. plant tree-saplings as if they exist in the nature	-	-	-	-
PC26. plant trees in very close proximity preferably 2-3 trees in the 1 square meter since tree develop as a family and support each other in growing through exchange of food and nutrients.	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC27. Create an eco-system where big trees should be complemented by small and auxiliary trees, shrubs or creepers.	-	-	-	-
PC28. Grow urban forest in natural environment without/least human-interference	-	-	-	-
<i>Assimilate basic conditions required for Vrikshayurveda/Miyawaki forests</i>	5	5	-	5
PC29. Carry out rigorous initial site survey and research of potential natural vegetation.	-	-	-	-
PC30. Select a community of variety of local trees for planting	-	-	-	-
PC31. Identify and collect a large number of various native seeds, locally or nearby and in a comparable geo-climatic context.	-	-	-	-
PC32. select the saplings or seeds which is local to selected site	-	-	-	-
PC33. propagate the seed in local area and germinated in a local nursery	-	-	-	-
PC34. prepare soil cover if it is very degraded by adding local bio mass in the soil and Soil should have perforators and retainers	-	-	-	-
PC35. cover and protect the roots by mulching the soil cover with organic material	-	-	-	-
PC36. carryout plantation respecting biodiversity inspired by the model of the natural forest.	-	-	-	-
PC37. carryout dense plantation of very young seedlings which already have a mature root system. Check the presence of symbiotic bacteria and fungi in matured root system	-	-	-	-
PC38. carryout plantations randomly distributed in space in the way plants are distributed in a clearing or at the edge of the natural forest, not in rows or staggered	-	-	-	-
NOS Total	20	15	-	15

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National Occupational Standards (NOS) Parameters

NOS Code	AGR/N6139
NOS Name	Understand the basic components of making an urban forest
Sector	Agriculture
Sub-Sector	Forestry, Environment and Renewable Energy Management
Occupation	Agro-Forestry Management
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	29/09/2023
Next Review Date	29/09/2026
NSQC Clearance Date	29/09/2023

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AGR/N6140: Follow the process of making a man-made forest

Description

This OS unit is about relevant steps and process involved in making a manmade micro forest

Scope

The scope covers the following :

- Prepare the site for the making urban forest
- Prepare the soils for plating of sapling
- Carryout Transplanting of sapling
- Perform waste management
- Optimize resource utilization

Elements and Performance Criteria

Prepare the site for the making urban forest

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

- PC1.** ascertain selected site comply with relevant applicable government legislation, standards, policies, and procedures
- PC2.** check and ascertain the required weather and climatic conditions including the average rainfall of the area where Mini-forest is being planned and is free from limiting factors
- PC3.** coordinate with an authorised soil testing lab to determine suitability of the soil for urban forest establishment
- PC4.** create appropriate drainage channels in the field for the effective drainage of water
- PC5.** prepare soil with good porosity levels for effective root penetration of the plant
- PC6.** Check the quality of soil of the selected site and ascertain the texture whether the soil is acidic or alkaline in nature etc. and is fit for plantation or not
- PC7.** Evaluate the fertility, strength and nutritional value of the soil
- PC8.** Ensure the accessibility or availability of water as water is a key element to make and sustain a forest.
- PC9.** Keep in scheme the artificial source of water if natural source is not available nearby
- PC10.** Ascertain the decline/incline of the land with respect of water source
- PC11.** Earmark a specific area for a small water pond.

Prepare the soils for plating of sapling

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

- PC12.** prepare the soil for propagation by applying the necessary treatment
- PC13.** arrange coir peat, vermiculite, compost, FYM etc. in the recommended quantity for preparing the soil as per requirement
- PC14.** create a mixture of coir peat, vermiculite and compost by adding the ingredients in the recommended ratio
- PC15.** add worm castings/ vermicompost to the mixture as per the requirement

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- PC16.** rake the soil to break any lumps and aerate it
- PC17.** Conduct erosion and sediment control activities
- PC18.** Comply with soil and water protection practices
- PC19.** Dig the upper crust or the soil up to minimum 2 feet by using manual labour or earth augur. For big piece of land, use JCM machines.
- PC20.** Mix the soil with perforators like biomass, stubble, rice-husk etc, and maintain the ratio 1/5 of the soil
- PC21.** Mix the soil with retainers keeping the ratio 1/5 of the soil.
- PC22.** Mix the soil with dry cow-dung or local biomass which should be in the ratio of 1/3 of the soil

Carryout Transplanting of sapling

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

- PC23.** transplant the planning materials using the relevant machinery and tools or manually as per the case, maintaining the recommended planting density for the selected planting materials to ensure its healthy growth as per planned layout
- PC24.** Divide the Plants in four categories viz, Canopy trees, Trees, bushes, creepers and climbers
- PC25.** Carryout plantation in set of plant-group which should include 1 canopy-tree, 1 tree, 1 bush and 1 creeper.
- PC26.** Dig the pits with a minimum depth of 1.5 feet and a width of 1 feet.
- PC27.** Mix properly the mixture of soil, retainers, perforators and nutrients properly to make the soil loose that the roots of the sapling spread easily.
- PC28.** Carry out plantation in monsoon season or in other seasons by giving a natural ambience and support to the saplings.
- PC29.** Cover the planted saplings with stubble up to 5 inches which will help in retaining water and moisture as well as help in checking the growth of grass and weeds.
- PC30.** ensure that there is very less human or animal activity for minimum 6 months till the roots are well entrenched.
- PC31.** Ascertain the appropriate plant density taking in to account the total area of the site.
- PC32.** Ensure that no plant of same species should be planted next to each other.
- PC33.** Ensure that the secondary root-system of the plant is not harmed while removing the plastic-cover of the sapling
- PC34.** Maintain the ideal space among the plant of 2.5 to 3 feet and in 1 square meter plant a group of 5 plants as per the case
- PC35.** Ensure that group of plant should have the canopy tree at the centre surrounded by other four trees and plants of the group.
- PC36.** Carryout regular watering of the forests for 18 months.
- PC37.** Perform watering in winter preferably in the afternoon and in summer watered twice a day in morning and in the evening.
- PC38.** apply water and fertilizers in the recommended quantity
- PC39.** apply pesticides/ insecticides to protect the plantlets from pests/ insects and diseases
- PC40.** set up appropriate irrigation and drainage systems in the urban forest
- PC41.** guide the client on the maintenance of the urban forest
- PC42.** arrange for protection from any health and safety hazards in and around the urban forest
- PC43.** support the plants with bamboo-sticks with cotton thread for each plant-sapling.

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- PC44.** Replace the dead sapling by a new healthy and disease-free sapling
- PC45.** Perform weeding if there is grass or weed in urban forest till the plants establish their own eco-system.
- PC46.** Leave the fell leaves in urban forest so that it gets decomposed and become part of the soil.
- PC47.** use the relevant PPE during the operations

Perform waste management

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

- PC48.** segregate waste into different categories
- PC49.** dispose the non-recyclable waste in an environment-friendly manner
- PC50.** recycle the recyclable waste appropriately

Optimize resource utilization

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

- PC51.** optimize the usage of various material in different tasks/ activities/ processes
- PC52.** optimize the usage of water/ electricity/ energy in various tasks/ activities/ processes
- PC53.** connect electrical tools and equipment safely and turn off when not in use

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** silviculture objectives and scope and modern silvicultural tools
- KU2.** site factors - climatic, edaphic, physiographic, biotic and their interactions
- KU3.** texture and nature of forest soils
- KU4.** trees and their distinguishing features, growth and development
- KU5.** different methods of propagating plants
- KU6.** root growth- fine root/functional root production
- KU7.** maintenance requirements of plantlets before transplanting
- KU8.** various ingredients used for preparing potting soil and their recommended quantity
- KU9.** ideal soil conditions for the healthy growth of plants
- KU10.** the correct method of planting various types of plants, trees, shrubs and grass
- KU11.** relevant treatments to improve nutrient levels in the soil
- KU12.** water and temperature requirements of plants in the urban forest
- KU13.** irrigation and drainage systems in the urban forest
- KU14.** relevant tools, implements, PPE and their correct use
- KU15.** proportionality of growing a forest with the richness in biodiversity that it attracts
- KU16.** importance of weeding and effective techniques for carrying out same
- KU17.** importance of following environmental and ecological best practices to minimise the impact on the environment
- KU18.** relevant occupational and environmental hazards and appropriate ways of dealing with them
- KU19.** benefits of resource optimization
- KU20.** ways of efficiently managing various materials used in the urban forest

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- KU21.** Direct and indirect benefits- biophysical interactions
- KU22.** Carbon sequestration potential of forests
- KU23.** weather and climatic conditions required for making urban forest
- KU24.** how to carry out soil testing
- KU25.** soil physical and chemical properties
- KU26.** evaluation of the fertility, strength and nutritional value of the soil
- KU27.** land reclamation
- KU28.** drainage channels
- KU29.** organic manures and their recommended dose
- KU30.** method of transplanting of sapling
- KU31.** pesticides/fertilizer requirements and their dose
- KU32.** use of the relevant PPE during the operations

Generic Skills (GS)

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

- GS1.** write work-related notes
- GS2.** read the relevant guides and manuals
- GS3.** communicate clearly and politely
- GS4.** listen attentively to understand the information/ instructions being given
- GS5.** plan and prioritise tasks to ensure timely completion
- GS6.** take quick decisions to deal with workplace emergencies/ accidents
- GS7.** identify possible disruptions to work and take preventive measures
- GS8.** co-ordinate with co-workers to achieve the work objectives

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare the site for the making urban forest</i>	6	8	-	8
PC1. ascertain selected site comply with relevant applicable government legislation, standards, policies, and procedures	-	-	-	-
PC2. check and ascertain the required weather and climatic conditions including the average rainfall of the area where Mini-forest is being planned and is free from limiting factors	-	-	-	-
PC3. coordinate with an authorised soil testing lab to determine suitability of the soil for urban forest establishment	-	-	-	-
PC4. create appropriate drainage channels in the field for the effective drainage of water	-	-	-	-
PC5. prepare soil with good porosity levels for effective root penetration of the plant	-	-	-	-
PC6. Check the quality of soil of the selected site and ascertain the texture whether the soil is acidic or alkaline in nature etc. and is fit for plantation or not	-	-	-	-
PC7. Evaluate the fertility, strength and nutritional value of the soil	-	-	-	-
PC8. Ensure the accessibility or availability of water as water is a key element to make and sustain a forest.	-	-	-	-
PC9. Keep in scheme the artificial source of water if natural source is not available nearby	-	-	-	-
PC10. Ascertain the decline/incline of the land with respect of water source	-	-	-	-
PC11. Earmark a specific area for a small water pond.	-	-	-	-
<i>Prepare the soils for plating of sapling</i>	6	8	-	8

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. prepare the soil for propagation by applying the necessary treatment	-	-	-	-
PC13. arrange coir peat, vermiculite, compost, FYM etc. in the recommended quantity for preparing the soil as per requirement	-	-	-	-
PC14. create a mixture of coir peat, vermiculite and compost by adding the ingredients in the recommended ratio	-	-	-	-
PC15. add worm castings/ vermicompost to the mixture as per the requirement	-	-	-	-
PC16. rake the soil to break any lumps and aerate it	-	-	-	-
PC17. Conduct erosion and sediment control activities	-	-	-	-
PC18. Comply with soil and water protection practices	-	-	-	-
PC19. Dig the upper crust or the soil up to minimum 2 feet by using manual labour or earth augur. For big piece of land, use JCM machines.	-	-	-	-
PC20. Mix the soil with perforators like biomass, stubble, rice-husk etc, and maintain the ratio 1/5 of the soil	-	-	-	-
PC21. Mix the soil with retainers keeping the ratio 1/5 of the soil.	-	-	-	-
PC22. Mix the soil with dry cow-dung or local biomass which should be in the ratio of 1/3 of the soil	-	-	-	-
<i>Carryout Transplanting of sapling</i>	8	8	-	8
PC23. transplant the planning materials using the relevant machinery and tools or manually as per the case, maintaining the recommended planting density for the selected planting materials to ensure its healthy growth as per planned layout	-	-	-	-
PC24. Divide the Plants in four categories viz, Canopy trees, Trees, bushes, creepers and climbers	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC25. Carryout plantation in set of plant-group which should include 1 canopy-tree, 1 tree, 1 bush and 1 creeper.	-	-	-	-
PC26. Dig the pits with a minimum depth of 1.5 feet and a width of 1 feet.	-	-	-	-
PC27. Mix properly the mixture of soil, retainers, perforators and nutrients properly to make the soil loose that the roots of the sapling spread easily.	-	-	-	-
PC28. Carry out plantation in monsoon season or in other seasons by giving a natural ambience and support to the saplings.	-	-	-	-
PC29. Cover the planted saplings with stubble up to 5 inches which will help in retaining water and moisture as well as help in checking the growth of grass and weeds.	-	-	-	-
PC30. ensure that there is very less human or animal activity for minimum 6 months till the roots are well entrenched.	-	-	-	-
PC31. Ascertain the appropriate plant density taking in to account the total area of the site.	-	-	-	-
PC32. Ensure that no plant of same species should be planted next to each other.	-	-	-	-
PC33. Ensure that the secondary root-system of the plant is not harmed while removing the plastic-cover of the sapling	-	-	-	-
PC34. Maintain the ideal space among the plant of 2.5 to 3 feet and in 1 square meter plant a group of 5 plants as per the case	-	-	-	-
PC35. Ensure that group of plant should have the canopy tree at the centre surrounded by other four trees and plants of the group.	-	-	-	-
PC36. Carryout regular watering of the forests for 18 months.	-	-	-	-
PC37. Perform watering in winter preferably in the afternoon and in summer water twice a day in morning and in the evening.	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC38. apply water and fertilizers in the recommended quantity	-	-	-	-
PC39. apply pesticides/ insecticides to protect the plantlets from pests/ insects and diseases	-	-	-	-
PC40. set up appropriate irrigation and drainage systems in the urban forest	-	-	-	-
PC41. guide the client on the maintenance of the urban forest	-	-	-	-
PC42. arrange for protection from any health and safety hazards in and around the urban forest	-	-	-	-
PC43. support the plants with bamboo-sticks with cotton thread for each plant-sapling.	-	-	-	-
PC44. Replace the dead sapling by a new healthy and disease-free sapling	-	-	-	-
PC45. Perform weeding if there is grass or weed in urban forest till the plants establish their own eco-system.	-	-	-	-
PC46. Leave the fell leaves in urban forest so that it gets decomposed and become part of the soil.	-	-	-	-
PC47. use the relevant PPE during the operations	-	-	-	-
<i>Perform waste management</i>	2	2	-	2
PC48. segregate waste into different categories	-	-	-	-
PC49. dispose the non-recyclable waste in an environment-friendly manner	-	-	-	-
PC50. recycle the recyclable waste appropriately	-	-	-	-
<i>Optimize resource utilization</i>	2	2	-	2
PC51. optimize the usage of various material in different tasks/ activities/ processes	-	-	-	-
PC52. optimize the usage of water/ electricity/ energy in various tasks/ activities/ processes	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC53. connect electrical tools and equipment safely and turn off when not in use	-	-	-	-
NOS Total	24	28	-	28

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National Occupational Standards (NOS) Parameters

NOS Code	AGR/N6140
NOS Name	Follow the process of making a man-made forest
Sector	Agriculture
Sub-Sector	Forestry, Environment and Renewable Energy Management
Occupation	Agro-Forestry Management
NSQF Level	2
Credits	2
Version	1.0
Last Reviewed Date	29/09/2023
Next Review Date	29/09/2026
NSQC Clearance Date	29/09/2023

Qualification Pack

AGR/N6141: Maintain an urban forest

Description

This OS unit is about various steps involved in maintenance of urban forest till it becomes a natural self-sustaining eco-system

Scope

The scope covers the following :

- Prepare for maintaining the urban forest
- Maintain the plants, trees and shrubs in the urban forest
- Make the urban forest self-sustaining
- Maintain the Micro forest tools and equipment

Elements and Performance Criteria

Prepare for maintaining the urban forest

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

- PC1.** visit the mini-forest once in 15 days for minimum 1 year as it takes minimum 18 months for a forest to be self-sufficient.
- PC2.** monitor the forest twice in 1 month to check the growth of the saplings.
- PC3.** Observe and measure the general well-being and health of the forest and its growth on various parameters
- PC4.** Count the number of saplings that have survived, and record the data
- PC5.** Prepare the record of observations for carrying maintenance

Maintain the plants, trees and shrubs in the urban forest

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

- PC6.** water the urban plants/ trees/ shrubs with the recommended quantity of water and ensure that the water reaches all the nook and corner of the forest
- PC7.** Water the forest with hose pipe once a day in summer and during winters water the forest each alternate day.
- PC8.** maintain the prescribed level of moisture and soil temperature
- PC9.** drain out excess water from the urban forest appropriately
- PC10.** apply the recommended quantity of fertilizers and manure to the plants/ trees/ shrubs
- PC11.** Avoid carryout pruning of the plants
- PC12.** Perform pruning only if any plants has overshadowed and has a wild-growth only during the first 2 years.
- PC13.** examine the plants/ trees/ shrubs regularly for pest infestation
- PC14.** apply the approved pesticides/ insecticides as per the manufacturer's instructions
- PC15.** rake the urban forest to remove dead leaves and debris
- PC16.** remove the weeds and wilted plants/ tree/ shrubs as per the Standard Operating Procedure (SOP)

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- PC17.** carry out plant rotation and shifting for the healthy growth of plants/ trees/ shrubs
- PC18.** carryout weeding of the forest for the first 18 months
- PC19.** spray natural fermented liquid like Jeevan Amrit twice a month if the forest is not growing in a proper way due to lack of nutrients
- PC20.** apply nature based fertilisers like neem-turmeric paste if there is issue of termite
- PC21.** maintain the record of fertilizers, pesticides and insecticides used in the urban forest
- PC22.** co-ordinate with an expert for any complex issues and maintenance activities required in urban forest
- PC23.** observe the growth of the forest like the height of the plants, colour of the leafs and increasing activities of the microorganism
- PC24.** check if the forest becomes a self-sustained eco-system in 18 months when all the plants are well developed and grown.
- PC25.** Do not remove any item of the forests like fruits, leaves, wood or soil from the forest.
- PC26.** Replace If any sapling is dead, immediately with disease free sapling
- PC27.** Replace the supporting bamboo-stick if missing as sticks are good for a good straight posture of a tree and an overall shape and growth of the forest.
- PC28.** Ensure that the plants stay straight, are not buried under the mulch, and are only loosely tied to the support stick.
- PC29.** Keep the forest off from any inorganic waste like plastic, paper, chemical or metal.
- PC30.** Ensure that there is a proper drainage system so that water does not get accumulated anywhere in the forest.
- PC31.** Check the slope and ensure that excess water is out instead of being accumulated particularly during the rainy season when the water stagnates due to excess rains.
- PC32.** Check the mortality rate of plant only after 3-4 months of planting.
- PC33.** Avoid using any chemicals like pesticides, weed-killer or inorganic fertilisers.
- PC34.** Maintain mulching for at least one year and the soil should be re-mulched with time, since dry soil is detrimental to forest health.
- PC35.** Use only natural, organic and bio-degradable mulch like stubbles, leaf-residue etc.
- PC36.** Avoid removing organic matter like fallen leaves, twigs, moss from the forest floor, as it will kill good soil microbes.
- PC37.** Ensure support sticks are in accordance with plant growth
- PC38.** Avoid cutting or pruning the forest as it could make the forest weaker.
- PC39.** add natural fertilisers and bio-enzymes like Panchgavya, Jeevanamrit etc. if soil is lacking the fertility
- PC40.** spray organic pesticides if plants are eaten-up by termites or parasites
- PC41.** Keep-away stray animals for at least 18 months till the forest attain a good height.

Make the urban forest self-sustaining

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

- PC42.** carryout survey of the forest resources
- PC43.** arrange for administrative setting for forest resource management
- PC44.** adopt appropriate methods of cutting viz clear cutting, selective cutting and shelter wood cutting
- PC45.** maintain appropriate time gap between cutting for the re-growth of trees

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- PC46.** make appropriate arrangements to control over forest fire
- PC47.** carryout reforestation and afforestation on the denuded area as per the case to maintain eco-balance
- PC48.** select the trees according to local geographical conditions for afforestation and take care during initial growth of the trees.
- PC49.** arrange for proper fencing to protect the urban forest from unorganised grazing
- PC50.** protect the forest either by use of recommended pesticides spray, antibiotics or planting of disease resistant strains of trees to prevent diseases resulting from parasitic fungi, rusts, mistletoes, viruses and nematodes
- PC51.** prepare master plans, both for long-term and short-term period
- PC52.** maintain the cleanliness of micro forest

Maintain the urban forest tools and equipment

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

- PC53.** examine various urban forest hand/ power tools and equipment for any wear and tear or damage
- PC54.** carry out minor repair and maintenance of the tools and equipment
- PC55.** store the tools and equipment as per the manufacturer's instructions

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.** principles of forest management and Sustainable forest management-criteria and indicators
- KU4.** Modern tools in forest management
- KU5.** Basics of Forest Mensuration
- KU6.** use of different types of hand/ power tools and equipment used in microforest operations
- KU7.** how to carry out minor repair and maintenance of the microforest tools and equipment
- KU8.** storage requirements of the relevant tools and equipment
- KU9.** indicators of pest and disease infestation on plants/ trees/ shrubs
- KU10.** safe use of the recommended pesticides, insecticides and fertilizers
- KU11.** how to prune and train different types of plants/ trees/ shrubs
- KU12.** different types of weeds and the process of their removal
- KU13.** how to maintain optimum moisture and temperature in the microforest
- KU14.** the practice of plant rotation and shifting
- KU15.** different techniques to enhance microforest aesthetics
- KU16.** importance and appropriate ways of draining out water from an microforest
- KU17.** different methods of recycling and disposing waste
- KU18.** common sources of pollution and ways to minimise it
- KU19.** purpose of urban forest management

Qualification Pack

Generic Skills (GS)

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

- GS1.** write work-related notes
- GS2.** read the relevant guides and manuals
- GS3.** communicate clearly and politely
- GS4.** listen attentively to understand the information/ instructions being given
- GS5.** plan and prioritise tasks to ensure timely completion
- GS6.** take quick decisions to deal with workplace emergencies/ accidents
- GS7.** identify possible disruptions to work and take preventive measures
- GS8.** co-ordinate with co-workers to achieve the work objectives

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare for maintaining the urban forest</i>	5	5	-	5
PC1. visit the mini-forest once in 15 days for minimum 1 year as it takes minimum 18 months for a forest to be self-sufficient.	-	-	-	-
PC2. monitor the forest twice in 1 month to check the growth of the saplings.	-	-	-	-
PC3. Observe and measure the general well-being and health of the forest and its growth on various parameters	-	-	-	-
PC4. Count the number of saplings that have survived, and record the data	-	-	-	-
PC5. Prepare the record of observations for carrying maintenance	-	-	-	-
<i>Maintain the plants, trees and shrubs in the urban forest</i>	5	8	-	5
PC6. water the urban plants/ trees/ shrubs with the recommended quantity of water and ensure that the water reaches all the nook and corner of the forest	-	-	-	-
PC7. Water the forest with hose pipe once a day in summer and during winters water the forest each alternate day.	-	-	-	-
PC8. maintain the prescribed level of moisture and soil temperature	-	-	-	-
PC9. drain out excess water from the urban forest appropriately	-	-	-	-
PC10. apply the recommended quantity of fertilizers and manure to the plants/ trees/ shrubs	-	-	-	-
PC11. Avoid carryout pruning of the plants	-	-	-	-
PC12. Perform pruning only if any plants has overshadowed and has a wild-growth only during the first 2 years.	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. examine the plants/ trees/ shrubs regularly for pest infestation	-	-	-	-
PC14. apply the approved pesticides/ insecticides as per the manufacturer's instructions	-	-	-	-
PC15. rake the urban forest to remove dead leaves and debris	-	-	-	-
PC16. remove the weeds and wilted plants/ tree/ shrubs as per the Standard Operating Procedure (SOP)	-	-	-	-
PC17. carry out plant rotation and shifting for the healthy growth of plants/ trees/ shrubs	-	-	-	-
PC18. carryout weeding of the forest for the first 18 months	-	-	-	-
PC19. spray natural fermented liquid like Jeevan Amrit twice a month if the forest is not growing in a proper way due to lack of nutrients	-	-	-	-
PC20. apply nature based fertilisers like neem-turmeric paste if there is issue of termite	-	-	-	-
PC21. maintain the record of fertilizers, pesticides and insecticides used in the urban forest	-	-	-	-
PC22. co-ordinate with an expert for any complex issues and maintenance activities required in urban forest	-	-	-	-
PC23. observe the growth of the forest like the height of the plants, colour of the leafs and increasing activities of the microorganism	-	-	-	-
PC24. check if the forest becomes a self-sustained eco-system in 18 months when all the plants are well developed and grown.	-	-	-	-
PC25. Do not remove any item of the forests like fruits, leafs, wood or soil from the forest.	-	-	-	-
PC26. Replace If any sapling is dead, immediately with disease free sapling	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC27. Replace the supporting bamboo-stick if missing as sticks are good for a good straight posture of a tree and an overall shape and growth of the forest.	-	-	-	-
PC28. Ensure that the plants stay straight, are not buried under the mulch, and are only loosely tied to the support stick.	-	-	-	-
PC29. Keep the forest off from any inorganic waste like plastic, paper, chemical or metal.	-	-	-	-
PC30. Ensure that there is a proper drainage system so that water does not get accumulated anywhere in the forest.	-	-	-	-
PC31. Check the slope and ensure that excess water is out instead of being accumulated particularly during the rainy season when the water stagnates due to excess rains.	-	-	-	-
PC32. Check the mortality rate of plant only after 3-4 months of planting.	-	-	-	-
PC33. Avoid using any chemicals like pesticides, weed-killer or inorganic fertilisers.	-	-	-	-
PC34. Maintain mulching for at least one year and the soil should be re-mulched with time, since dry soil is detrimental to forest health.	-	-	-	-
PC35. Use only natural, organic and bio-degradable mulch like stubbles, leaf-residue etc.	-	-	-	-
PC36. Avoid removing organic matter like fallen leaves, twigs, moss from the forest floor, as it will kill good soil microbes.	-	-	-	-
PC37. Ensure support sticks are in accordance with plant growth	-	-	-	-
PC38. Avoid cutting or pruning the forest as it could make the forest weaker.	-	-	-	-
PC39. add natural fertilisers and bio-enzymes like Panchgavya, Jeevanamrit etc. if soil is lacking the fertility	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC40. spray organic pesticides if plants are eaten-up by termites or parasites	-	-	-	-
PC41. Keep-away stray animals for at least 18 months till the forest attain a good height.	-	-	-	-
<i>Make the urban forest self-sustaining</i>	5	7	-	5
PC42. carryout survey of the forest resources	-	-	-	-
PC43. arrange for administrative setting for forest resource management	-	-	-	-
PC44. adopt appropriate methods of cutting viz clear cutting, selective cutting and shelter wood cutting	-	-	-	-
PC45. maintain appropriate time gap between cutting for the re-growth of trees	-	-	-	-
PC46. make appropriate arrangements to control over forest fire	-	-	-	-
PC47. carryout reforestation and afforestation on the denuded area as per the case to maintain eco-balance	-	-	-	-
PC48. select the trees according to local geographical conditions for afforestation and take care during initial growth of the trees.	-	-	-	-
PC49. arrange for proper fencing to protect the urban forest from unorganised grazing	-	-	-	-
PC50. protect the forest either by use of recommended pesticides spray, antibiotics or planting of disease resistant strains of trees to prevent diseases resulting from parasitic fungi, rusts, mistletoes, viruses and nematodes	-	-	-	-
PC51. prepare master plans, both for long-term and short-term period	-	-	-	-
PC52. maintain the cleanliness of mico forest	-	-	-	-
<i>Maintain the urban forest tools and equipment</i>	2	4	-	4

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC53. examine various urban forest hand/ power tools and equipment for any wear and tear or damage	-	-	-	-
PC54. carry out minor repair and maintenance of the tools and equipment	-	-	-	-
PC55. store the tools and equipment as per the manufacturer's instructions	-	-	-	-
NOS Total	17	24	-	19

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	AGR/N6141
NOS Name	Maintain an urban forest
Sector	Agriculture
Sub-Sector	Forestry, Environment and Renewable Energy Management
Occupation	Agro-Forestry Management
NSQF Level	2
Credits	2
Version	1.0
Last Reviewed Date	29/09/2023
Next Review Date	29/09/2026
NSQC Clearance Date	29/09/2023

Qualification Pack

AGR/N6142: Follow procedures to prepare natural manure and nutrients

Description

This OS unit is preparation of natural manual and nutrients for utilization in urban forest

Scope

The scope covers the following :

- Prepare manure by pit composting / trench composting
- Prepare Natural cow-dung manure (Jeevamrut)

Elements and Performance Criteria

Prepare manure by pit composting / trench composting

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

- PC1.** select the appropriate area for digging the pit/trench
- PC2.** dig the pit/trench of appropriate size and width required for the composting keeping into consideration the amount of organic matter to be added
- PC3.** Chop the compost materials finely by appropriate tools and equipment before being thrown in the hole so that exposed area for the compost materials can be maximized
- PC4.** Add the organic materials to the compost pit
- PC5.** Use a shovel to well mix the materials together so that they decompose as evenly as possible
- PC6.** Ensure that carbon-rich materials (e.g. dried leaves) are well mixed thoroughly with nitrogen-rich materials (like vegetable scraps and fresh grass clippings)
- PC7.** Cover the hole with a board if compost pit is not full and more organic materials are required to be added
- PC8.** Cover the compost with soil when it is full to the level with the surrounding soil
- PC9.** Improve the underground compost decomposition by watering the compost area appropriately with garden hose or with suitable watering equipment
- PC10.** Harvest the compost once it has decomposed properly and use in planting area

Prepare Natural cow-dung manure (Jeevamrut)

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

- PC11.** Take recommended quantity of water in barrel and add appropriate quantity of local cow dung and cow urine in water
- PC12.** Add recommended quantity of jaggery (Gud), pulses flour and soil in the barrel
- PC13.** stir the solution well and keep it for recommended hours in the shadow
- PC14.** check for the fermentation in the solution
- PC15.** use the solution once it is ready for use

Knowledge and Understanding (KU)

Qualification Pack

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.** impact of not following the health, hygiene, safety and quality standards on consumers and the business
- KU5.** use of appropriate personal protective equipment suitable to the type of work
- KU6.** Nutrients requirements in urban forest
- KU7.** advantage and disadvantages of nature-based manure
- KU8.** Method of preparation of manure by pit composting / trench composting
- KU9.** Method of preparation of Natural cow-dung manure
- KU10.** different types of organic wastes and their uses
- KU11.** importance of maintaining correct proportion of substrates in a composting unit
- KU12.** length of time allowed for decomposition of organic wastes
- KU13.** Properties of Manure and nutrients composition in natural manure
- KU14.** Manure as a Source of Crop Nutrients and Soil Amendment

Generic Skills (GS)

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

- GS1.** write work-related notes
- GS2.** read the relevant guides and manuals
- GS3.** communicate clearly and politely
- GS4.** listen attentively to understand the information/ instructions being given
- GS5.** plan and prioritise tasks to ensure timely completion
- GS6.** take quick decisions to deal with workplace emergencies/ accidents
- GS7.** identify possible disruptions to work and take preventive measures
- GS8.** co-ordinate with co-workers to achieve the work objectives

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare manure by pit composting / trench composting</i>	4	8	-	8
PC1. select the appropriate area for digging the pit/trench	-	-	-	-
PC2. dig the pit/trench of appropriate size and width required for the composting keeping into consideration the amount of organic matter to be added	-	-	-	-
PC3. Chop the compost materials finely by appropriate tools and equipment before being thrown in the hole so that exposed area for the compost materials can be maximized	-	-	-	-
PC4. Add the organic materials to the compost pit	-	-	-	-
PC5. Use a shovel to well mix the materials together so that they decompose as evenly as possible	-	-	-	-
PC6. Ensure that carbon-rich materials (e.g. dried leaves) are well mixed thoroughly with nitrogen-rich materials (like vegetable scraps and fresh grass clippings)	-	-	-	-
PC7. Cover the hole with a board if compost pit is not full and more organic materials are required to be added	-	-	-	-
PC8. Cover the compost with soil when it is full to the level with the surrounding soil	-	-	-	-
PC9. Improve the underground compost decomposition by watering the compost area appropriately with garden hose or with suitable watering equipment	-	-	-	-
PC10. Harvest the compost once it has decomposed properly and use in planting area	-	-	-	-
<i>Prepare Natural cow-dung manure (Jeevamrut)</i>	4	8	-	8

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. Take recommended quantity of water in barrel and add appropriate quantity of local cow dung and cow urine in water	-	-	-	-
PC12. Add recommended quantity of jaggery (Gud), pulses flour and soil in the barrel	-	-	-	-
PC13. stir the solution well and keep it for recommended hours in the shadow	-	-	-	-
PC14. check for the fermentation in the solution	-	-	-	-
PC15. use the solution once it is ready for use	-	-	-	-
NOS Total	8	16	-	16

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	AGR/N6142
NOS Name	Follow procedures to prepare natural manure and nutrients
Sector	Agriculture
Sub-Sector	Forestry, Environment and Renewable Energy Management
Occupation	Agro-Forestry Management
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	29/09/2023
Next Review Date	29/09/2026
NSQC Clearance Date	29/09/2023

Qualification Pack

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

Description

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

Scope

The scope covers the following :

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

Elements and Performance Criteria

Introduction to Employability Skills

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

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

Constitutional values – Citizenship

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

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

Becoming a Professional in the 21st Century

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

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

Basic English Skills

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

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

Communication Skills

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

PC5. follow good manners while communicating with others

PC6. work with others in a team

Qualification Pack

Diversity & Inclusion

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

PC7. communicate and behave appropriately with all genders and PwD

PC8. report any issues related to sexual harassment

Financial and Legal Literacy

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

PC9. use various financial products and services safely and securely

PC10. calculate income, expenses, savings etc.

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

Essential Digital Skills

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

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

PC13. use internet and social media platforms securely and safely

Entrepreneurship

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

PC14. identify and assess opportunities for potential business

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

Customer Service

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

PC16. identify different types of customers

PC17. identify customer needs and address them appropriately

PC18. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

PC19. create a basic biodata

PC20. search for suitable jobs and apply

PC21. identify and register apprenticeship opportunities as per requirement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

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

KU5. how to use basic spoken English language

KU6. Do and dont of effective communication

KU7. inclusivity and its importance

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

KU9. different types of financial products and services

Qualification Pack

- KU10.** how to compute income and expenses
- KU11.** importance of maintaining safety and security in financial transactions
- KU12.** different legal rights and laws
- KU13.** how to operate digital devices and applications safely and securely
- KU14.** ways to identify business opportunities
- KU15.** types of customers and their needs
- KU16.** how to apply for a job and prepare for an interview
- KU17.** apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

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

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

Qualification Pack

Assessment Criteria

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

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. calculate income, expenses, savings etc.	-	-	-	-
PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
<i>Essential Digital Skills</i>	4	6	-	-
PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-
PC13. use internet and social media platforms securely and safely	-	-	-	-
<i>Entrepreneurship</i>	3	5	-	-
PC14. identify and assess opportunities for potential business	-	-	-	-
PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
<i>Customer Service</i>	2	2	-	-
PC16. identify different types of customers	-	-	-	-
PC17. identify customer needs and address them appropriately	-	-	-	-
PC18. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	1	3	-	-
PC19. create a basic biodata	-	-	-	-
PC20. search for suitable jobs and apply	-	-	-	-
PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
NOS Total	20	30	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0101
NOS Name	Employability Skills (30 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	18/02/2025
Next Review Date	18/02/2028
NSQC Clearance Date	18/02/2025

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down the proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on the knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create unique question papers for the theory part for each candidate at each examination/training centre (as per assessment criteria below).
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training centre based on these criteria.
5. In case of successfully passing only a certain number of NOSs, the trainee is eligible to take a 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/N6139.Understand the basic components of making an urban forest	20	15	-	15	50	10
AGR/N6140.Follow the process of making a man-made forest	24	28	-	28	80	35
AGR/N6141.Maintain an urban forest	17	24	-	19	60	35
AGR/N6142.Follow procedures to prepare natural manure and nutrients	8	16	-	16	40	15
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	-	-	50	5
Total	89	113	-	78	280	100

Qualification Pack

Acronyms

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

Qualification Pack

Glossary

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

Qualification Pack

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