# Model Curriculum

**QP Name: Barefoot Technician**

**QP Code: AGR/Q7801**

**Version: 3.0**

**NSQF Level: 4**

**Model Curriculum Version: 2.0**

Agriculture Skill Council of India || Agriculture Skill Council of India (ASCI), 6th Floor, GNG Tower, Plot No. 10, Sector - 44

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# Training Parameters

| Sector | Agriculture |
|---|---|
| Sub-Sector | Agriculture industries |
| Occupation | Agri-Entrepreneurship & Rural Enterprises |
| Country | India |
| NSQF Level | 4 |
| Aligned to NCO/ISCO/ISIC Code | NCO-2015/NIL |
| Minimum Educational Qualification and Experience | Minimum Educational Qualification:<br>12th grade pass<br>OR<br>Completed 2nd year of 3-year diploma (after 10th) and pursuing regular diploma<br>OR<br>10th grade pass plus 2-year NTC<br>OR<br>10th grade pass plus 1-year NTC plus 1 year NAC<br>OR<br>8th pass plus 2-year NTC plus 1-Year NAC plus CITS<br>OR<br>10th grade pass and pursuing continuous schooling<br>OR<br>10th Grade Pass with 2-year relevant experience<br>OR<br>Previous relevant Qualification of NSQF Level 3.0 with minimum education as 8th Grade pass with 3- year relevant experience<br>OR<br>Previous relevant Qualification of NSQF Level 3.5 with 1.5- year relevant experience |
| Pre-Requisite License or Training | NA |
| Minimum Job Entry Age | 18 Years |
| Last Reviewed On | 31/03/2022 |
| Next Review Date | 31/03/2025 |
| NSQC Approval Date | 31/03/2022 |
| QP Version | 3.0 |
| Model Curriculum Creation Date | 31/03/2022 |

| Model Curriculum Valid Up to Date | 31/03/2025 |
|---|---|
| Model Curriculum Version | 2.0 |
| Minimum Duration of the Course | 390 Hours |
| Maximum Duration of the Course | 390 Hours |

# Program Overview

This section summarizes the end objectives of the program along with its duration.

## Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills to:

- Describe the process of assisting in identifying the works to be taken up and collecting baseline information.

- Demonstrate the process of assisting in making the presentation to the GP and preparing the work register.

- Describe the process of assisting in preparing for work on the MGNREGA work site.

- Describe the process of assisting in monitoring work at MGNREGA work site.

- Describe the process of maintaining the relevant MGNREGA records.

- Explain the basic entrepreneurial activities for small enterprise.

- Describe the process of undertaking employability and entrepreneurial practices.

- Demonstrate various practices to maintain health, hygiene and safety at the workplace.

## Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

| NOS and Module Details | Theory Duration | Practical Duration | On-the-Job Training Duration (Mandatory) | On-the-Job Training Duration (Recommended) | Total Duration |
|---|---|---|---|---|---|
| **Bridge Module** | **05:00** | **00:00** | **0:00** | **0:00** | **05:00** |
| Module 1: Introduction to the role of a Barefoot Technician | 05:00 | 0:00 | 0:00 | 0:00 | 05:00 |
| **AGR/N7801 Assist in identifying the works to be taken up and collecting baseline information** **NOS Version- 2.0** **NSQF Level- 4** | **10:00** | **15:00** | **0:00** | **00:00** | **25:00** |

| | | | | | |
|---|---|---|---|---|---|
| Module 2: Process of assisting in identifying the works to be taken up and collecting baseline information | 10:00 | 15:00 | 0:00 | 00:00 | 25:00 |
| **AGR/N7802 Assist in making the presentation to the GP and preparing the work register**<br>**NOS Version- 2.0**<br>**NSQF Level- 4** | **15:00** | **15:00** | **0:00** | **00:00** | **30:00** |
| Module 3: Process of assisting in making the presentation to the GP and preparing the work register | 15:00 | 15:00 | 0:00 | 00:00 | 30:00 |
| **AGR/N7804 Assist in preparing for work on the MGNREGA work site**<br>**NOS Version- 2.0**<br>**NSQF Level- 4** | **15:00** | **45:00** | **0:00** | **00:00** | **60:00** |
| Module 4: Process of assisting in preparing for work on the MGNREGA work site | 15:00 | 45:00 | 0:00 | 00:00 | 60:00 |
| **AGR/N7805 Assist in monitoring work at MGNREGA work sites**<br>**NOS Version- 2.0**<br>**NSQF Level- 4** | **15:00** | **15:00** | **0:00** | **00:00** | **30:00** |
| Module 5: Process of assisting in monitoring work at MGNREGA work sites | 15:00 | 15:00 | 0:00 | 00:00 | 30:00 |
| **AGR/N7806: Maintain the relevant MGNREGA records**<br>**NOS Version- 2.0**<br>**NSQF Level- 4** | **15:00** | **15:00** | **0:00** | **00:00** | **30:00** |
| Module 6: Process of maintaining the relevant MGNREGA records | 15:00 | 15:00 | 0:00 | 00:00 | 30:00 |
| **AGR/N9903 Maintain health and safety at the workplace**<br>**NOS Version- 3.0**<br>**NSQF Level-4** | **15:00** | **15:00** | **0:00** | **00:00** | **30:00** |

| | | | | | |
|---|---|---|---|---|---|
| Module 7: Hygiene and cleanliness | 03:00 | 03:00 | 0:00 | 0:00 | 6:00 |
| Module 8: Safety and emergency procedures | 12:00 | 12:00 | 0:00 | 0:00 | 24:00 |
| **DGT/VSQ/N0102 Employability Skills** **NOS Version-1.0** **NSQF Level-4** | **60:00** | **00:00** | **0:00** | **0:00** | **60:00** |
| Module 9: Employability Skills | 60:00 | 00:00 | 0:00 | 0:00 | 60:00 |
| **Total Duration** | **150:00** | **120:00** | **0:00** | **00:00** | **270:00** |
| **OJT: 120 hours** | | | | | |

# Module Details

## Module 1: Introduction to the role of a Barefoot Technician
### *Bridge Module*

**Terminal Outcomes:**

- Discuss the job role of a Barefoot Technician.

| Duration: 05:00 | Duration: 0:00 |
|---|---|
| **Theory – Key Learning Outcome** | **Practical – Key Learning Outcomes** |
| <ul><li>Describe the size and scope of the agriculture industry and its sub-sectors.</li><li>Discuss the role and responsibilities of a Barefoot Technician.</li><li>Identify various employment opportunities for a Barefoot Technician.</li></ul> | |
| **Classroom Aids** | |
| Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films | |
| **Tools, Equipment and Other Requirements** | |
| NA | |

## Module 2: Process of assisting in identifying the works to be taken up and collecting baseline information

### Mapped to AGR/N7801 v2.0

**Terminal Outcomes:**

- Describe the process of assisting in identifying works to be taken up.
- Describe the process of assisting in collecting the baseline information.
- Demonstrate the process of assist in preparing the documents.

| Duration: 10:00 | Duration: 15:00 |
|---|---|
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| <ul><li>Explain the importance and benefits of MGNREGA.</li><li>State the relevant provisions of Schedule I of the MGNREGA Act relating to categories of permissible works.</li><li>Describe the process of selecting worksites and works to be taken up based on the village survey and study of topographic sheets and maps.</li><li>Describe the process of mapping the resources required for works to be taken up under MGNREGA in the identified areas.</li><li>List various pieces of information to be recorded during the survey such as land use and ownership of the selected work sites; measurements such as length, breadth, depth/thickness, area, volume/ quantity, slope, weight, densities, and other relevant technical details.</li><li>Explain the basic principles of geometrics.</li><li>Describe the process of estimate preparation and the relevant estimate components to be considered.</li><li>Explain how to estimate for the excavation of farm pond, construction of Rock Fill Dam (RFD), construction of water trough.</li><li>Describe the process of calculating the requirement of materials for</li></ul> | <ul><li>Roleplay how to conduct village-level survey to identify the potential work sites such as water bodies, streets, ridges, contours, and work suitable for taking up under the MGNREGA.</li><li>Demonstrate the process of recording information regarding the type of soil and slope at the worksite, as required according to the type of work to be taken up.</li><li>Demonstrate the use of A-frame to mark contours and horizontal lines on slopes.</li><li>Demonstrate how to measure slopes for various works using Abney level, hydro marker, etc.</li><li>Demonstrate the process of preparing the site plan, along with the necessary drawings and documentation in consultation with TA/ JE/ AE.</li><li>Demonstrate the process of preparing index map and sketches for each type of work, along with the work input data sheet meant for the preparation of work estimates.</li></ul> |

- different types of works.
- Describe the process and necessity of conducting surveys for MGNREGA works.
- Explain the use of various measuring aids and instruments to take relevant measurements.
- Describe the process of identifying and setting out levels and slopes using a hydrometer/ pipe level and Abney level.
- Explain different types of soils, sands, stones, bricks, cement.
- Explain different types of maps and their use.
- Explain how to convert units of length, area, volume and weight.
- Explain how to draw relevant sketches, basic drawings, cross-sections, layouts.
- Explain how to calculate the average of multiple values.
- Explain the application of basic measurements.
- Describe the process of estimating and calculating areas, slopes and weights related to construction works under MGNREGA.

## Classroom Aids

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

## Tools, Equipment and Other Requirements

Flip Card, Cue Card or Moderation Card, Geometry Box, Calculator, Flip Chart, Measuring Tape, etc.

# Module 3: Process of assisting in making the presentation to the GP and preparing the work register

*Mapped to ARG/N7802 v2.0*

**Terminal Outcomes:**

- Describe the process assisting in making the presentation to GP.
- Demonstrate the process preparing the work register.

| Duration: 15:00 | Duration: 15:00 |
|---|---|
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| <ul><li>Explain the role of GP, GP Secretary, TA, JE, AE, Technical sanction authority, Administration sanction authority in sanctioning the works to be taken up under MGNREGA.</li><li>Describe the annual planning process and the labour budget preparation.</li><li>Explain the important technical features of the works mentioned in schedule I of the MGNREGA Act.</li></ul> | <ul><li>Demonstrate the process of preparing the work estimates according to the labour budget in the required format to be presented to GP.</li><li>Demonstrate the process of making the presentation of work proposals to GP for their approval.</li><li>Show how to prepare the work register after obtaining approval from the relevant authority.</li><li>Show how to prepare the work schedule according to the required person-days and available material.</li><li>Demonstrate how to update the worksheets with the information regarding the work completed and remaining.</li></ul> |
| **Classroom Aids** ||
| Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop ||
| **Tools, Equipment and Other Requirements** ||
| Wooden Sticks, Plastic Pipes, Kneels, Hammer, Rope, Lime Powder, Ranging Rod ||

## Module 4: Process of assisting in preparing for work on the MGNREGA work site

### Mapped to AGR/N7804 v2.0

**Terminal Outcomes:**

- Describe the process of assisting in preparing for work at the worksite.
- Discuss ways to promote diversity and inclusion at the workplace.

| Duration: 15:00 | Duration: 45:00 |
|---|---|
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| <ul><li>Explain the role of labour groups, mates, Rozgar Sevak, GP secretary</li><li>Explain task rates and the process of calculating task rates using a ready reckoner</li><li>List various worksite facilities to be provided under MGNREGA</li><li>Describe the process of setting work to be done on the ground using an L-scale, A-frame, hydrometer, water tube, line level, rope, measuring tape, etc.</li><li>State the applicable construction activities, their units and quality specifications</li><li>Describe the process of preparing for various works sanctioned under MGNREGA</li><li>State the standard schedule of rates</li><li>Describe the process of preparing the Bill of Quantities (BoQ)</li><li>Describe the process of procuring construction materials such as cement, stones, bricks, etc.</li><li>Explain the importance of ensuring safe and efficient storage of construction materials at the worksite</li><li>Explain the importance of organising relevant training sessions such as on-the-job training for mates and labourers and Rozgar Sevak to help them learn the required skills and perform their duties</li></ul> | <ul><li>Roleplay how to allot tasks to labour groups at the worksite, ensuring no overlap among them, briefing them about the scope of work, applicable quality standards and targets to be achieved, along with the payable wages.</li><li>Demonstrate appropriate verbal and non-verbal communication that is respectful of genders and disability.</li></ul> |

- Describe the process of allotting tasks to labour groups at the worksite, ensuring no overlap among them

- Explain the importance of briefing labourers about the scope of work, applicable quality standards and targets to be achieved, along with the payable wages

- Explain the importance of ensuring proportionate work allocation according to the number of labourers in each group and minimum guaranteed number of work hours

- Explain the importance of ensuring the availability of appropriate tools, implements, equipment and materials to the labourers for effective and timely completion of work

- Explain the importance of inclusion of all genders and People with Disability (PwD) at the workplace.

**Classroom Aids**

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

**Tools, Equipment and Other Requirements**

Wooden Sticks, Plastic Pipes, Kneels, Hammer, Rope, Lime Powder, Ranging Rod

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## Module 5: Process of assisting in monitoring work at MGNREGA work sites
### Mapped to ARG/N7805 v2.0

**Terminal Outcomes:**

- Describe the process of assisting in supervising the execution and quality of work
- Describe the process of assisting in ensuring adherence to health and safety standards
- Demonstrate various practices for effective resource optimisation.
- Demonstrate various waste management practices.

| Duration: 15:00 | Duration: 15:00 |
|---|---|
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| <ul><li>Explain the importance of guiding the mates and Rozgar Sevak for providing worksite facilities</li><li>Explain the applicable brick masonry practices</li><li>Explain the importance of ensuring work is completed as per the applicable standards and within the agreed Turn-Around-Time (TAT)</li><li>Explain the importance of ensuring safe usage and maintenance of tools, implements and equipment as per the manufacturer's instructions</li><li>Describe the process of managing with remaining construction material</li><li>Explain the importance of ensuring activity-specific compliance to environmental laws, community facilitation requirements, health and safety standards in the execution of works</li><li>Explain how to coordinate with the TA/ JE/ AE for reviewing and verifying the measurements of work done by each labour group as recorded in the M-Book</li><li>Describe the process of checking the quality of work carried out by each labour group to get approval</li><li>Describe the process of initiating and taking corrective action as per the applicable standards if any defects are identified in work.</li><li>Explain the benefits of resource</li></ul> | <ul><li>Demonstrate the process of checking work execution at the worksite to ensure the work is carried out as planned, and according to the work specifications and applicable quality standards</li><li>Demonstrate how to prepare and use cement concentration and mortar.</li><li>Demonstrate the process of making superstructure with stones or bricks.</li><li>Demonstrate the process of laying the foundation in construction works.</li><li>Demonstrate use of the relevant Personal Protective Equipment (PPE).</li><li>Demonstrate various practices to optimise the usage of various resources such as water and electricity.</li><li>Demonstrate the process of recycling and disposing different types of waste appropriately.</li></ul> |

optimisation.

- Explain the importance of recycling and disposing different types of waste as per the applicable regulations.

| Classroom Aids |
| --- |
| Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop |

| Tools, Equipment and Other Requirements |
| --- |
| NA |

# Module 6: Process of maintaining the relevant MGNREGA records
## *Mapped to ARG/N7806 v2.0*

**Terminal Outcomes:**

- Demonstrate the process of maintaining the relevant records
- Explain the importance of ensuring safe storage of records

| Duration: 15:00 | Duration: 15:00 |
|---|---|
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| <ul><li>Explain how to maintain the Material at work site (MAS) register, M Book or measurement book and asset register.</li><li>Explain how to write and maintain a shelf of works register.</li><li>Describe the process of preparing and updating the work register in the template as required by the Ministry of Rural Development (MoRD).</li><li>State the relevant administrative and technical sanctions from the relevant authority to be recorded during the documentation process.</li><li>Describe the process of reviewing the technical sanction estimates to ensure accuracy.</li><li>Explain the importance of recording information regarding the receipt and consumption of various materials for each type of work in the Material at Site (MAS) register.</li><li>Explain the importance of updating the asset register with details of assets created under MGNREGA after completion of the works.</li><li>Explain the importance and process of recording the measurements of work completed by each labour group in the measurement book (MBook).</li><li>Describe the process of calculating the wages payable to labourers in each group, based on the extent of work done by each of them.</li><li>Explain the importance of updating the payment register with</li></ul> | <ul><li>Demonstrate the process of preparing and updating the work register in the template as required by the Ministry of Rural Development (MoRD).</li><li>Demonstrate how to maintain and review the technical sanction estimates to ensure accuracy.</li><li>Demonstrate how to maintain the status of work with respect to work sanctioned under different categories, spillover works, works under coverage and work completed.</li><li>Demonstrate how to maintain supplier-wise material supply report along with the material expenditure report.</li><li>Demonstrate the process of preparing and updating the workwise Material at Site (MAS) register with the information regarding the receipt and consumption of various materials for each type of work.</li><li>Demonstrate the process of preparing and update asset register with details of assets created under MGNREGA after completion of the works.</li><li>Show how to record the measurements of work completed by each labour group in the measurement book (MBook) and update the relevant authority with the status of MBook in a timely manner.</li><li>Show how to calculate the wages payable to labourers in each group, based on the extent of work done by</li></ul> |

| | |
|---|---|
| information regarding the payments made according to the recorded measurements.<br><br>• Describe the process of maintaining the tools issue register with details of their issue and return.<br><br>• Explain the importance of ensuring safe storage of records and access to them by the authorised personnel only. | each of them and update the payment register with information regarding the payments made according to the recorded measurements.<br><br>• Demonstrate how to maintain the tools issue register with details of their issue and return.<br><br>• Show how to record photographic evidence of the status of work and uploaded it to the relevant portal using a mobile phone or computer. |

**Classroom Aids**

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

**Tools, Equipment and Other Requirements**

Flip Card, Cue Card or Moderation Card, Geometry Box, Calculator, Flip Chart

# Module 7: Hygiene and cleanliness

## Mapped to NOS AGR/N9903 v3.0

**Terminal Outcomes:**

- Discuss how to adhere to personal hygiene practices.

- Demonstrate ways to ensure cleanliness around the workplace.

| Duration: 03:00 | Duration: 03:00 |
|---|---|
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| <ul><li>Explain the requirements of personal health, hygiene and fitness at work.</li><li>Describe common health-related guidelines laid down by the organizations/ Government at the workplace.</li><li>Explain the importance of good housekeeping at the workplace.</li><li>Explain the importance of informing the designated authority on personal health issues related to injuries and infectious diseases.</li></ul> | <ul><li>Demonstrate personal hygiene practices to be followed at the workplace.</li><li>Demonstrate the correct way of washing hands using soap and water, and alcohol-based hand rubs.</li><li>Demonstrate the steps to follow to put on and take off a mask safely.</li><li>Show how to sanitize and disinfect one's work area regularly.</li><li>Demonstrate adherence to the workplace sanitization norms.</li><li>Show how to ensure the cleanliness of the work area.</li></ul> |
| **Classroom Aids:** | |
| Computer, Projection Equipment, PowerPoint Presentation and Software, Facilitator's Guide, Participant's Handbook. | |
| **Tools, Equipment and Other Requirements** | |
| Personal Protective Equipment, Cleaning Equipment and Materials, Sanitizer, Soap, Mask | |

## Module 8: Safety and emergency procedures
### *Mapped to NOS AGR/N9903 v3.0*

**Terminal Outcomes:**

- Describe how to adhere to safety guidelines.
- Show how to administer appropriate emergency procedures.

| Duration: 12:00 | Duration: 12:00 |
|---|---|
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| <ul><li>List the Personal Protective Equipment (PPE) required at the workplace.</li><li>Describe the commonly reported hazards at the workplace.</li><li>Describe the hazards caused due to chemicals/pesticides/fumigants.</li><li>Describe the basic safety checks to be done before the operation of any equipment/machinery.</li><li>Describe the common first aid procedures to be followed in case of emergencies.</li><li>State measures that can be taken to prevent accidents and damage s at the workplace.</li><li>Explain the importance of reporting details of first aid administered, to the reporting officer/doctor, in accordance with workplace procedures.</li><li>State common health and safety guidelines to be followed at the workplace.</li></ul> | <ul><li>Check various areas of the workplace for leakages, waterlogging, pests, fire, etc.</li><li>Demonstrate how to safely use the PPE and implements it as applicable to the workplace.</li><li>Display the correct way of donning, doffing and discarding PPE such as face masks, hand gloves, face shields, PPE suits, etc.</li><li>Sanitize the tools, equipment and machinery properly.</li><li>Demonstrate the safe disposal of waste.</li><li>Demonstrate procedures for dealing with accidents, fires and emergencies.</li><li>Demonstrate emergency procedures to the given workplace requirements.</li><li>Demonstrate the use of emergency equipment in accordance with manufacturers' specifications and workplace requirements.</li><li>Demonstrate the administration of first aid.</li><li>Prepare a list of relevant hotline/ emergency numbers.</li></ul> |
| **Classroom Aids:** | |
| Computer, Projection Equipment, PowerPoint Presentation and Software, Facilitator's Guide, Participant's Handbook. | |
| **Tools, Equipment and Other Requirements** | |
| Personal Protective Equipment, First Aid Kit, Equipment used in Medical Emergencies. | |

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## Module 9: Employability Skills (60 hours)
### Mapped to NOS DGT/VSQ/N0102 v1.0

| Duration: 60:00 |
|---|
| **Key Learning Outcomes** |

### Introduction to Employability Skills Duration: 1.5 Hours
After completing this programme, participants will be able to:
1. Discuss the Employability Skills required for jobs in various industries
2. List different learning and employability related GOI and private portals and their usage

### Constitutional values - Citizenship Duration: 1.5 Hours
3. Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen
4. Show how to practice different environmentally sustainable practices.

### Becoming a Professional in the 21st Century Duration: 2.5 Hours
5. Discuss importance of relevant 21st century skills.
6. Exhibit 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life.
7. Describe the benefits of continuous learning.

### Basic English Skills Duration: 10 Hours
8. Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone
9. Read and interpret text written in basic English
10. Write a short note/paragraph / letter/e -mail using basic English

### Career Development & Goal Setting Duration: 2 Hours
11. Create a career development plan with well-defined short- and long-term goals

### Communication Skills Duration: 5 Hours
12. Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette.
13. Explain the importance of active listening for effective communication
14. Discuss the significance of working collaboratively with others in a team

### Diversity & Inclusion Duration: 2.5 Hours
15. Demonstrate how to behave, communicate, and conduct oneself appropriately with all genders and PwD
16. Discuss the significance of escalating sexual harassment issues as per POSH act.

### Financial and Legal Literacy Duration:5 Hours
17. Outline the importance of selecting the right financial institution, product, and service
18. Demonstrate how to carry out offline and online financial transactions, safely and securely
19. List the common components of salary and compute income, expenditure, taxes, investments etc.
20. Discuss the legal rights, laws, and aids

**Essential Digital Skills Duration: 10 Hours**

21. Describe the role of digital technology in today's life
22. Demonstrate how to operate digital devices and use the associated applications and features, safely and securely
23. Discuss the significance of displaying responsible online behavior while browsing, using various social media platforms, e-mails, etc., safely and securely
24. Create sample word documents, excel sheets and presentations using basic features
25. utilize virtual collaboration tools to work effectively

**Entrepreneurship Duration: 7 Hours**

26. Explain the types of entrepreneurship and enterprises
27. Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan
28. Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement
29. Create a sample business plan, for the selected business opportunity

**Customer Service Duration: 5 Hours**

30. Describe the significance of analysing different types and needs of customers
31. Explain the significance of identifying customer needs and responding to them in a professional manner.
32. Discuss the significance of maintaining hygiene and dressing appropriately

**Getting Ready for apprenticeship & Jobs Duration: 8 Hours**

33. Create a professional Curriculum Vitae (CV)
34. Use various offline and online job search sources such as employment exchanges, recruitment agencies, and job portals respectively
35. Discuss the significance of maintaining hygiene and confidence during an interview
36. Perform a mock interview
37. List the steps for searching and registering for apprenticeship opportunities

## Module 10: On-the-Job Training
### *Mapped to Barefoot Technician*

| Mandatory Duration: 120:00 | Recommended Duration: 00:00 |
|---|---|
| **Location: On-Site** | |

**Terminal Outcomes**

1. Explain the importance and benefits of MGNREGA.

2. Prepare the site plan, along with the necessary drawings and documentation in consultation with TA/ JE/ AE.

3. Prepare index map and sketches for each type of work, along with the work input data sheet meant for the preparation of work estimates.

4. Prepare the work register after obtaining approval from the relevant authority.

5. Prepare and use cement concentration and mortar.

6. Use the relevant Personal Protective Equipment (PPE).

7. Prepare and update the workwise Material at Site (MAS) register with the information regarding the receipt and consumption of various materials for each type of work.

8. Record photographic evidence of the status of work and uploaded it to the relevant portal using a mobile phone or computer.

9. Calculate the costs incurred and determine the price of the product for profitability.

10. Use relevant digital services such as e-commerce, e-payments, electronic recordkeeping, etc.

11. Carry out commercial activities such as buying and selling commodities using the appropriate e-commerce platforms.

12. Use emergency equipment in accordance with manufacturers' specifications and workplace requirements.

# Annexure

## Trainer Requirements

| Trainer Prerequisites | | | | | |
|---|---|---|---|---|---|
| **Minimum Educational Qualification** | **Specialization** | **Relevant Industry Experience** | | **Training Experience** | | **Remarks** |
| | | Years | Specialization | Years | Specialization | |
| 12th Class | Science | 6 | Infrastructure Activities | 0 | | Ex-Service-Man including Ex-Paramilitary personnel: Minimum Qualification is 10+2 with an Honourable Discharge/ Pension. SSC would consider a relaxation/waiver of sector-specific experience on a case-to-case basis. |
| Diploma | Agriculture/ Horticulture /Agriculture engineering | 5 | Infrastructure Activities | 0 | | |
| Graduate | Graduate in any stream except Agriculture / Horticulture / Botany / Forestry/Rural/Civil engineering and related fields | 4 | Infrastructure Activities | 0 | | For the school Program minimum qualification of the Trainer should be Graduate in Science with Teaching experience of minimum 3 years. (will be considered industry experience) |
| Graduate | Agriculture / Horticulture / Botany/Forestry/ Rural and related fields | 1 | Infrastructure Activities | 0 | | |
| Graduate | Civil Engineering and related fields | 0.5 | Infrastructure Activities | 0 | | |

| Trainer Certification | |
|---|---|
| **Domain Certification** | **Platform Certification** |
| Certified for Job Role "**Barefoot Technician**", mapped to QP: "AGR/Q7801, v2.0", Minimum accepted score is 80% | Recommended that the Trainer is certified for the Job Role: "Trainer (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2601, v2.0". The minimum accepted score as per MEPSC guidelines is 80%. |

# Assessor Requirements

| Assessor Prerequisites | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Minimum Educational Qualification** | **Specialization** | **Relevant Industry Experience** | | **Training/Assessment Experience** | | **Remarks** | |
| | | *Years* | *Specialization* | *Years* | *Specialization* | | |
| **Graduation** | Agriculture/Rural / Civil Engineering and related fields | 5 | Civil Engineering/Rural Infrastructure Development and related experience | 0 | | Practical skills and knowledge required in Infrastructure development | |
| **Post-Graduation** | Agriculture/Rural / Civil Engineering and related fields | 2 | Civil Engineering/Rural Infrastructure Development and related experience | 0 | | Practical skills and knowledge required in Infrastructure development | |
| **PhD** | Agriculture/ Environmental Science/ Entomology and related streams | 1 | Civil Engineering/Rural Infrastructure Development and related experience | 0 | | Practical skills and knowledge required in Infrastructure development | |

| Assessor Certification | |
|---|---|
| **Domain Certification** | **Platform Certification** |
| Certified for Job Role "**Barefoot Technician**", mapped to QP: "AGR/Q7801, v2.0", Minimum accepted score is 80% | Certified for the Job Role: "Assessor (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2701, v2.0", with a minimum score of 80%. |

# Assessment Strategy

### Assessment System Overview

In Agriculture Sector it is of ultimate importance that individuals dealing with crop production or livestock have the requisite knowledge and competencies to undertake the task. Based on the Assessment Criteria, SSC in association with empaneled AAs, define the test structure for the given job roles to cover the required skills and competencies. Assessment strategy consists of the following:

1. <u>Multiple Choice Questions</u>: To assess basic knowledge (Objective/Subjective)
2. <u>Viva:</u> To assess awareness on processes (Oral and/or written questioning)
3. <u>Practical:</u> To evaluate skills and identify competencies. (Observation)

Assessments for knowledge and awareness on processes may be conducted through 'real-time' internet-based evaluation or by conducting the same 'offline' through TABs. Skills and competencies are to be assessed by conducting 'practical' on the ground through qualified and ToA certified assessors.

An individual must have adequate knowledge and skills to perform a specific task, weightage for different aspects of the assessment is given as follows:

- Multiple Choice Questions: 20%-30%, depending on the specific QP
- Viva: 20%
- Practical: 50% - 60% (Involves demonstrations of applications and presentations of procedures/tasks and other components)
- Assessment will be carried out by certified assessors through empaneled assessment partners. Based on the results of the assessment; ASCI will certify the learners/candidates

**Testing Environment**

Assessments are conducted on laptops, Mobiles and android tablets via both offline and online mode depending on the internet connectivity at the assessment location.

In remote locations/villages, assessments get delivered through tablets without the requirement of the Internet.

- Multilingual assessments (ASCI is conducting the assessments in 13 + languages pan India)
- Rubric driven assessments in Practical/Viva sections and responses recorded accordingly
- All responses, data, records and feedback are stored digitally on the cloud
- Advanced auto-proctoring features – photographs, time-stamp, geographic-tagging, toggle- screen/copy-paste disabled, etc.
- Android-based monitoring system
- End to end process from allocation of a batch to final result upload, there is no manual intervention
- Assessment will normally be fixed for a day after the end date of the training / within 7 days of completion of training.
- Assessment will be conducted at the training venue
- The room where assessment is conducted will be set with proper seating arrangements with enough space to curb copying or other unethical activities
- Question bank of theory and practice will be prepared by ASCI /assessment agency and approved ASCI. Only from approved Question Bank assessment agency will prepare the question paper. Theory testing will include multiple-choice questions,

pictorial questions, etc. which will test the trainee on his theoretical knowledge of the subject.

- The theory, practical and viva assessments will be carried out on the same day. In case of a greater number of candidates, the number of assessors and venue facilitation be increased and facilitated

| Assessment | | | |
|---|---|---|---|
| Assessment Type | Formative or Summative | Strategies | Examples |
| Theory | Summative | MCQ/Written exam | Knowledge of facts related to the job role and functions. Understanding of principles and concepts related to the job role and functions |
| Practical | Summative | Structured tasks/Demonstration | Practical application /Demonstration /Application tasks |
| Viva | Summative | Questioning and Probing | Mock interviews on the usability of job roles/advantages /importance of adherence to procedures. Viva will be used to gauge trainee's confidence and correct knowledge in handling the job situation |

The question paper is pre-loaded in the computer /Tablet and it will be in the language as requested by the training partner.

# Assessment Quality Assurance framework

## Assessment Framework and Design:

Based on the Assessment Criteria, SSC in association with AAs will define the test structure for the given roles to cover the required skills and competencies. ASCI offer a bouquet of tools for multi-dimensional evaluation of candidates covering language, cognitive skills, behavioural traits and domain knowledge.

**Theoretical Knowledge** - Item constructs and types are determined by a theoretical understanding of the testing objectives and published research about the item types and constructs that have shown statistical validity towards measuring the construct. Test item types that have been reported to be coachable are not included. Based on these, items are developed by domain experts. They are provided with comprehensive guidelines of the testing objectives of each question and other quality measures.

**Type** – Questions based on Knowledge Required, Case-based practical scenario questions and automated simulation-based questions.

**Practical Skills** - The practical assessments are developed taking into consideration two aspects: what practical tasks is the candidate expected to perform on the job and what aspects of the job cannot be judged through theoretical assessments. The candidates shall be asked to perform either an entire task or a set of subtasks depending on the nature of the job role

**Type –** Standardized rubrics for evaluation against a set of tasks in a demo/practical task

**Viva Voce** - Those practical tasks which cannot be performed due to time or resource constraints are evaluated through the viva mode. Practical tasks are backed up with Viva for thorough assessment and complete evaluation

**Type** – Procedural questions, dos and don'ts, subjective questions to check the understanding of practical tasks.

The assessor has to go through an orientation program organized by the Assessment Agency. The training would give an overview to the assessors on the overall framework of QP evaluation. The assessor shall be given a NOS and PC level overview of each QP as applicable. The overall structure of assessment and objectivity of the marking scheme will be explained to them. The giving of marks will be driven by an objective framework that will maintain the standardization of the marking scheme.

## Type of Evidence and Evidence Gathering Protocol:

During the assessment the evidence collected by AAs and ASCI are:

- Geo Tagging to track ongoing assessment
- AA's coordinator emails the list of documents and evidence (photos and videos) to the assessor one day before the assessment. The list is mentioned below:
  - Signed Attendance sheet
  - Assessor feedback sheet
  - Candidate feedback sheet

- o Assessment checklist for assessor
- o Candidate Aadhar/ID card verification
- o Pictures of the classroom, labs to check the availability of adequate equipment's and tools to conduct the training and assessment
- o Pictures and videos of Assessment, training feedback and infrastructure.

- Apart from the Assessor, a Technical assistant is popularly known as Proctor also ensures the proper documentation and they verify each other's tasks.

- To validate their work on the day of the assessment, regular calls and video calls are done.

- On-boarding and training of the assessor and proctor are done on a timely basis to ensure that the quality of the assessment should be maintained.

- Training covers the understanding of QP, NSQF level, NOS and assessment structure

### *Methods of Validation*

- Morning Check (Pre-Assessment): Backend team of AA calls and confirms assessor/technical SPOC event status. Assessor/Technical SPOC are instructed to reach the centre on time by 9:30 AM / as decided with TC and delay should be highlighted to the Training Partner in advance.

- Video Calls: Random video calls are made to the technical SPOC/assessor so as to keep a check on assessment quality and ensure assessment is carried out in a fair and transparent manner

- Aadhar verification of candidates

- Evening Check (Post Assessment): Calls are made to the ground team to ensure the event is over by what time and the documentation is done properly or not.

- TP Calling: To keep a check on malpractices, an independent audit team calls the TP on a recorded line to take confirmation if there was any malpractice activity observed in the assessment on part of the AA/SSC team. If calls are not connected, an email is sent to TP SPOC for taking their confirmation

- Video and Picture Evidence: Backend team collects video and pictures for assessment on a real-time basis and highlights any issue such as students sitting idle/ trainer helping the candidates during the assessment.

- Surprise Visit: Time to time SSC/AA Audit team can visit the assessment location and conduct a surprise audit for the assessment carried out by the ground team.

- Geo Tagging: On the day of the assessment, each technical SPOC is required to login into our internal app which is Geotagged. Any deviation with the centre address needs to be highlighted to the assessment team on a real-time basis.

### *Method for assessment documentation, archiving, and Access:*

- ASCI have a fully automated result generation process in association with multiple AAs

- Theory, Practical and Viva marks form the basis of the results and encrypted files generated to avoid data manipulation. All responses were captured and stored in the System with Time-Stamps at the end of AAs and SSC. NOS-wise and PC-wise scores can

be generated.

- Maker Checker concept: One person prepares the results and another audit result which is internally approved by AA at first and then gets vetted at the end of SSC

- All softcopies of documents are received from the on-ground tech team over email. The same is downloaded by our internal backend team and saved in Repository. The repository consists of scheme-wise folders. These scheme-wise folders have two job role-specific folders. These specific folders have Year wise and Month wise folders where all documents are saved in Batch specific folders. All Hard copies are filed and stored in the storeroom.

*Result Review & Recheck Mechanism –*

- Time-stamped assessment logs
- Answer/Endorsement sheets for each candidate
- Attendance Sheet
- Feedback Forms: Assessor feedback form, Candidate feedback form, TP feedback form
- The results for each of the candidates shall be stored and available for review (retained for 5 years/ till the conclusion of the project or scheme)

# References

## Glossary

| Term | Description |
|---|---|
| **Declarative Knowledge** | Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem. |
| **Key Learning Outcome** | The Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application). |
| **OJT (M)** | On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on-site |
| **OJT (R)** | On-the-job training (Recommended); trainees are recommended the specified hours of training on-site |
| **Procedural Knowledge** | Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work or produce a tangible work output by applying cognitive, affective or psychomotor skills. |
| **Training Outcome** | The Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training. |
| **Terminal Outcome** | The Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome. |

## Acronyms and Abbreviations

| Term | Description |
| --- | --- |
| AEPS | Aadhar Enabled Payment System |
| AGR | Agriculture |
| NOS | National Occupational Standard (s) |
| NSQF | National Skills Qualifications Framework |
| OJT | On-the-job Training |
| PwD | People with Disability |
| PPE | Personal Protective Equipment |
| QP | Qualifications Pack |
| UPI | Unified Payment Interface |
| USSD | Unstructured Supplementary Service Data |