

Self-Assessment Checklist

Candidate Name	
Registration No.	
Qualification	National Vocational Certificate level 2 to 5, in Agriculture Sector (Soil, water and fertilizer testing lab technician)
Competency Standards	Perform Soil Electrical Conductivity (EC) by EC Meter
Assessment Task	Analyze the soil sample for electrical conductivity

I can.....

Performance Criteria	Yes	No
1. Check sample label for the required test.	<input type="checkbox"/>	<input type="checkbox"/>
2. Maintain Laboratory room temperature as per requirement.	<input type="checkbox"/>	<input type="checkbox"/>
3. Keep sample at room temperature for few minutes.	<input type="checkbox"/>	<input type="checkbox"/>
4. Check for availability of EC standard as per requirement.	<input type="checkbox"/>	<input type="checkbox"/>
5. Arrange equipment as per requirements..	<input type="checkbox"/>	<input type="checkbox"/>
6. Set up EC meter and/or reagents in accordance with the standard work instructions.	<input type="checkbox"/>	<input type="checkbox"/>
7. Conduct pre-use and safety checks	<input type="checkbox"/>	<input type="checkbox"/>
8. Turn on instrument as per standard method.	<input type="checkbox"/>	<input type="checkbox"/>
9. Prepare soil:water suspension as per SOP.	<input type="checkbox"/>	<input type="checkbox"/>
10. Calibrate conductivity meter according to standard instructions.	<input type="checkbox"/>	<input type="checkbox"/>
11. Rinse cell/ electrode thoroughly as per SOP.	<input type="checkbox"/>	<input type="checkbox"/>
12. Measure electrical conductivity of the 0.01M KCl as per standard test method.	<input type="checkbox"/>	<input type="checkbox"/>
13. Measure EC of sample suspension as per standard test method	<input type="checkbox"/>	<input type="checkbox"/>
14. Rinse the conductivity cell in soil suspension as per test method.	<input type="checkbox"/>	<input type="checkbox"/>
15. Refill the conductivity cell as per SOP.	<input type="checkbox"/>	<input type="checkbox"/>
16. Perform replicates as per requirement.	<input type="checkbox"/>	<input type="checkbox"/>
17. Store unused reagents and dispose of wastes as required by relevant regulations and codes.	<input type="checkbox"/>	<input type="checkbox"/>
18. Clean and store equipment as per SOP	<input type="checkbox"/>	<input type="checkbox"/>
19. Perform EC meter intermediate checks as per lab quality assurance plan	<input type="checkbox"/>	<input type="checkbox"/>

20. Run blank sample accordingly.	<input type="checkbox"/>	<input type="checkbox"/>
21. Run Laboratory Control samples as per standard.	<input type="checkbox"/>	<input type="checkbox"/>
22. Perform replicate/re-testing as per lab standards.	<input type="checkbox"/>	<input type="checkbox"/>
23. Record quality control data as per lab procedure.	<input type="checkbox"/>	<input type="checkbox"/>
24. Prepare quality control charts of quality assurance activities according to lab procedure	<input type="checkbox"/>	<input type="checkbox"/>
25. Calculate and Note down the Results on analyst workbook.	<input type="checkbox"/>	<input type="checkbox"/>
26. Submit the results to lab In-charge	<input type="checkbox"/>	<input type="checkbox"/>
27. Clear and restore work area	<input type="checkbox"/>	<input type="checkbox"/>
28. Ensure calibration of instrument as per method requirement.	<input type="checkbox"/>	<input type="checkbox"/>
29. Leave probe always in conductivity/ storage solution.	<input type="checkbox"/>	<input type="checkbox"/>
30. Submerge probe in sample to be tested while stirring it gently.	<input type="checkbox"/>	<input type="checkbox"/>
31. Rinse probe tip after use according to SOP	<input type="checkbox"/>	<input type="checkbox"/>

Candidate's Signature_____

Assessor's Signature_____

Date: _____

Instruction Sheet for the Candidate

Qualification	National Vocational Certificate level 2 to 5, in Agriculture Sector (Soil, water and fertilizer testing lab technician)
Competency Standard(s)	Perform Soil Electrical Conductivity (EC) by EC Meter
Candidate Details	Name_____ Registration/Roll Number_____
Guidance for Candidate	To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment): Analyze the soil sample for electrical conductivity
Time:180 mins	<p>During a practical assessment, under observation by an assessor, you are required to</p> <p>Analyze the soil sample for electrical conductivity</p> <p>Demonstrate the following criteria:</p> <ol style="list-style-type: none"> 1. Check sample label for the required test. 2. Maintain Laboratory room temperature as per requirement. 3. Keep sample at room temperature for few minutes. 4. Check for availability of EC standard as per requirement. 5. Arrange equipment as per requirements.. 6. Set up EC meter and/or reagents in accordance with the standard work instructions. 7. Conduct pre-use and safety checks 8. Turn on instrument as per standard method. 9. Prepare soil:water suspension as per SOP. 10. Calibrate conductivity meter according to standard instructions. 11. Rinse cell/ electrode thoroughly as per SOP. 12. Measure electrical conductivity of the 0.01M KCl as per standard test

Minimum Evidence Required	<p>method.</p> <ol style="list-style-type: none"> 13. Measure EC of sample suspension as per standard test method 14. Rinse the conductivity cell in soil suspension as per test method. 15. Refill the conductivity cell as per SOP. 16. Perform replicates as per requirement. 17. Store unused reagents and dispose of wastes as required by relevant regulations and codes. 18. Clean and store equipment as per SOP 19. Perform EC meter intermediate checks as per lab quality assurance plan 20. Run blank sample accordingly. 21. Run Laboratory Control samples as per standard. 22. Perform replicate/re-testing as per lab standards. 23. Record quality control data as per lab procedure. 24. Prepare quality control charts of quality assurance activities according to lab procedure 25. Calculate and Note down the Results on analyst workbook. 26. Submit the results to lab In-charge 27. Clear and restore work area 28. Ensure calibration of instrument as per method requirement. 29. Leave probe always in conductivity/ storage solution. 30. Submerge probe in sample to be tested while stirring it gently. 31. Rinse probe tip after use according to SOP
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Assessors Judgment Guide

Qualification	National Vocational Certificate level 2 to 5, in Agriculture Sector (Soil, water and fertilizer testing lab technician)
Competency Standard(s)	Perform Soil Electrical Conductivity (EC) by EC Meter
Candidate Details	Name: _____ Registration/Roll Number: _____ Signature: _____
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor _____ Assessor's code: _____ Signature: _____

Assessment Summary (to be filled by the assessor)

Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment		✓					
Other Requirement							

Observation Checklist

Assessment Task	Analyze the soil sample for electrical conductivity				
During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks
1.	Checked sample label for the required test.				
2.	Maintained Laboratory room temperature as per requirement.				
3.	Kept sample at room temperature for few minutes.				
4.	Checked for availability of EC standard as per requirement.				
5.	Arranged equipment as per requirements..				
6.	Set up EC meter and/or reagents in				

	accordance with the standard work instructions.			
7.	Conducted pre-use and safety checks			
8.	Turned on instrument as per standard method.			
9.	Prepared soil:water suspension as per SOP.			
10	Calibrated conductivity meter according to standard instructions.			
11	Rinsed cell/ electrode thoroughly as per SOP.			
12	Measured electrical conductivity of the 0.01M KCl as per standard test method.			
13	Measured EC of sample suspension as per standard test method			
14	Rinsed the conductivity cell in soil suspension as per test method.			
15	Refilled the conductivity cell as per SOP.			
16	Performed replicates as per requirement.			
17	Stored unused reagents and dispose of wastes as required by relevant regulations and codes.			
18	Cleaned and store equipment as per SOP			
19	Performed EC meter intermediate checks as per lab quality assurance plan			
20	Run blank sample accordingly.			
21	Run Laboratory Control samples as per standard.			
22	Performed replicate/re-testing as per lab standards.			
23	Recorded quality control data as per lab procedure.			
24	Prepared quality control charts of quality assurance activities according to lab procedure			
25	Calculate and Note down the Results on analyst workbook.			
26	Submitted the results to lab In-charge			
27	Cleared and restore work area			
28	Ensured calibration of instrument as per method requirement.			
29	Left probe always in conductivity/ storage solution.			
30	Submerged probe in sample to be tested while stirring it gently.			
31	Rinsed probe tip after use according to SOP			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Feedback to the Candidate

Candidate's Signature _____ Assessor's Signature _____