

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 Organic Matter Test
Assessment Task	Assess the percentage of organic matter in soil using standard test method

I can.....

Performance Criteria	Yes	No
1. Check sample label for required test.	<input type="checkbox"/>	<input type="checkbox"/>
2. Maintain Laboratory room temperature as per requirement.	<input type="checkbox"/>	<input type="checkbox"/>
3. Arrange equipment as per required method.	<input type="checkbox"/>	<input type="checkbox"/>
4. Perform standardization of ferrous sulphate solution as per standard method.	<input type="checkbox"/>	<input type="checkbox"/>
5. Set up apparatus in accordance with the standard work instructions.	<input type="checkbox"/>	<input type="checkbox"/>
6. Conduct pre-use and safety checks.	<input type="checkbox"/>	<input type="checkbox"/>
7. Take required amount of soil sample as per standard procedure.	<input type="checkbox"/>	<input type="checkbox"/>
8. Add recommended amount of potassium dichromate and mix well as per procedure.	<input type="checkbox"/>	<input type="checkbox"/>
9. Add volume of sulfuric acid and allow to leave as per standard method.	<input type="checkbox"/>	<input type="checkbox"/>
10. Add distilled water and phosphoric acid into the sample as per standard method.	<input type="checkbox"/>	<input type="checkbox"/>
11. Add indicator and titrate against standard solution as per standard method.	<input type="checkbox"/>	<input type="checkbox"/>
12. Use standardized ferrous sulphate solution as per SOP.	<input type="checkbox"/>	<input type="checkbox"/>
13. Check for volume used during titration.	<input type="checkbox"/>	<input type="checkbox"/>
14. Run blank sample accordingly.	<input type="checkbox"/>	<input type="checkbox"/>
15. Run Laboratory Control samples as per standard.	<input type="checkbox"/>	<input type="checkbox"/>
16. Perform replicate/re-testing as per lab standards.	<input type="checkbox"/>	<input type="checkbox"/>
17. Record quality control data as per lab procedure.	<input type="checkbox"/>	<input type="checkbox"/>
18. Calculate organic matter percentage as per recommended formula.	<input type="checkbox"/>	<input type="checkbox"/>

19. Submit the results to lab In-charge	<input type="text"/>	<input type="text"/>
20. Clear and restore work area	<input type="text"/>	<input type="text"/>
21. Perform digestion in fume hood as per standard method	<input type="text"/>	<input type="text"/>
22. Rinse apparatus as per SOP.	<input type="text"/>	<input type="text"/>
23. Ensure safety protocols.	<input type="text"/>	<input type="text"/>
24. Store solutions and reagents as per standard method.	<input type="text"/>	<input type="text"/>
25. Use acids as per MSDS.	<input type="text"/>	<input type="text"/>

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 Organic Matter Test
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): Assess the percentage of organic matter in soil using standard test method
Time:240 Mins	During a practical assessment, under observation by an assessor, you are required to Assess the percentage of organic matter in soil using standard test method Demonstrate the following criteria: <ol style="list-style-type: none"> 1. Check sample label for required test. 2. Maintain Laboratory room temperature as per requirement. 3. Arrange equipment as per required method. 4. Perform standardization of ferrous sulphate solution as per standard method. 5. Set up apparatus in accordance with the standard work instructions. 6. Conduct pre-use and safety checks.

Minimum Evidence Required	<ol style="list-style-type: none"> 7. Take required amount of soil sample as per standard procedure. 8. Add recommended amount of potassium dichromate and mix well as per procedure. 9. Add volume of sulfuric acid and allow to leave as per standard method. 10. Add distilled water and phosphoric acid into the sample as per standard method. 11. Add indicator and titrate against standard solution as per standard method. 12. Use standardized ferrous sulphate solution as per SOP. 13. Check for volume used during titration. 14. Run blank sample accordingly. 15. Run Laboratory Control samples as per standard. 16. Perform replicate/re-testing as per lab standards. 17. Record quality control data as per lab procedure. 18. Calculate organic matter percentage as per recommended formula. 19. Submit the results to lab In-charge 20. Clear and restore work area 21. Perform digestion in fume hood as per standard method 22. Rinse apparatus as per SOP. 23. Ensure safety protocols. 24. Store solutions and reagents as per standard method. 25. Use acids as per MSDS.
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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 Organic Matter Test
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	
	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Nature of Activity							
Practical Skill Demonstration			✓				
Knowledge Assessment		✓					
Other Requirement							

Observation Checklist

Assessment Task		Assess the percentage of organic matter in soil using standard test method			
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks	
1.	Checked sample label for required test.				
2.	Maintained Laboratory room temperature as per requirement.				
3.	Arranged equipment as per required method.				
4.	Performed standardization of ferrous sulphate solution as per standard method.				

5.	Set up apparatus in accordance with the standard work instructions.			
6.	Conducted pre-use and safety checks.			
7.	Take required amount of soil sample as per standard procedure.			
8.	Added recommended amount of potassium dichromate and mix well as per procedure.			
9.	Added volume of sulfuric acid and allow to leave as per standard method.			
10.	Added distilled water and phosphoric acid into the sample as per standard method.			
11.	Added indicator and titrate against standard solution as per standard method.			
12.	Used standardized ferrous sulphate solution as per SOP.			
13.	Checked for volume used during titration.			
14.	Run blank sample accordingly.			
15.	Run Laboratory Control samples as per standard.			
16.	Performed replicate/re-testing as per lab standards.			
17.	Recorded quality control data as per lab procedure.			
18.	Calculated organic matter percentage as per recommended formula.			
19.	Submitted the results to lab In-charge			
20.	Cleared and restore work area			
21.	Performed digestion in fume hood as per standard method			
22.	Rinsed apparatus as per SOP.			
23.	Ensured safety protocols.			
24.	Stored solutions and reagents as per standard method.			
25.	Used acids as per MSDS.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Feedback to the Candidate

Candidate's Signature _____
Assessor's Signature _____