

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 Potassium (K) in Solid, Liquid and Mixed Fertilizer by Flame Photometry Method
Assessment Task	Determine Potassium content in fertilizer sample: a) Prepare working standard solution and calibrate analytical instrument. b) Process fertilizer sample for flame-photometer analysis and determine results by standard procedure.

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. Check for availability of P standard as per requirement.	<input type="checkbox"/>	<input type="checkbox"/>
4. Set up equipments in accordance with the standard work instructions.	<input type="checkbox"/>	<input type="checkbox"/>
5. Conduct pre-use and safety checks.	<input type="checkbox"/>	<input type="checkbox"/>
6. Prepare sample according to requirement.	<input type="checkbox"/>	<input type="checkbox"/>
7. Process sample as per standard testing method.	<input type="checkbox"/>	<input type="checkbox"/>
8. Analyze sample using flame photometer as per SOP.	<input type="checkbox"/>	<input type="checkbox"/>
9. Perform calculations as per standard procedure	<input type="checkbox"/>	<input type="checkbox"/>
10. Store unused reagents and dispose of wastes as required by relevant regulations and codes.	<input type="checkbox"/>	<input type="checkbox"/>
11. Clean and store equipment as per lab protocol	<input type="checkbox"/>	<input type="checkbox"/>
12. Ensure use of fresh working Standards as per SOP.	<input type="checkbox"/>	<input type="checkbox"/>
13. Run blank sample accordingly.	<input type="checkbox"/>	<input type="checkbox"/>

14. Run Laboratory Control samples as per standard.	<input type="checkbox"/>	<input type="checkbox"/>
15. Perform replicate/re-testing as per lab standards.	<input type="checkbox"/>	<input type="checkbox"/>
16. Record quality control data as per lab procedure.	<input type="checkbox"/>	<input type="checkbox"/>
17. Note down the Results on analyst workbook.	<input type="checkbox"/>	<input type="checkbox"/>
18. Submit the results to lab In-charge	<input type="checkbox"/>	<input type="checkbox"/>
19. Clear and restore work area.	<input type="checkbox"/>	<input type="checkbox"/>
20. Ensure calibration of required equipment as per standard testing method.	<input type="checkbox"/>	<input type="checkbox"/>
21. Perform dilutions in case of liquid sample before running any batch sample	<input type="checkbox"/>	<input type="checkbox"/>
22. Dispose-off waste as per SOP.	<input type="checkbox"/>	<input type="checkbox"/>
23. Ensure safety protocols as per standard requirement	<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 Potassium (K) in Solid, Liquid and Mixed Fertilizer by Flame Photometry Method
Candidate Details	
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):</p> <p>Determine Potassium content in fertilizer sample:</p> <ol style="list-style-type: none"> a) Prepare working standard solution and calibrate analytical instrument. b) Process fertilizer sample for flame-photometer analysis and determine results by standard procedure.
Time:240 Mins	<p>During a practical assessment, under observation by an assessor, you are required to</p> <p>Determine Potassium content in fertilizer sample:</p> <ol style="list-style-type: none"> 1. Prepare working standard solution and calibrate analytical instrument. 2. Process fertilizer sample for flame-photometer analysis and determine results by standard procedure.
Minimum Evidence Required	<p>Demonstrate the following criteria:</p> <p>Prepare working standard solution and calibrate the instruments for analysis.</p> <ol style="list-style-type: none"> 1. Check sample label for required test 2. Maintain Laboratory room temperature as per requirement. 3. Check for availability of P standard as per requirement. 4. Set up equipments in accordance with the standard work instructions. 5. Conduct pre-use and safety checks. <p>Process fertilizer sample for analysis on flame-photometer and calculate results as per standard procedure.</p> <ol style="list-style-type: none"> 6. Prepare sample according to requirement. 7. Process sample as per standard testing method. 8. Analyze sample using flame photometer as per SOP.

	<ol style="list-style-type: none"> 9. Perform calculations as per standard procedure 10. Store unused reagents and dispose of wastes as required by relevant regulations and codes. 11. Clean and store equipment as per lab protocol 12. Ensure use of fresh working Standards as per SOP. 13. Run blank sample accordingly. 14. Run Laboratory Control samples as per standard. 15. Perform replicate/re-testing as per lab standards. 16. Record quality control data as per lab procedure. 17. Note down the Results on analyst workbook. 18. Submit the results to lab In-charge 19. Clear and restore work area. 20. Ensure calibration of required equipment as per standard testing method. 21. Perform dilutions in case of liquid sample before running any batch sample 22. Dispose-off waste as per SOP. 23. Ensure safety protocols as per standard requirement
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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 Potassium (K) in Solid, Liquid and Mixed Fertilizer by Flame Photometry Method
Candidate Details	Name: _____ Registration/Roll Number: _____ Signature: _____
Assessment Outcome	<div style="display: flex; justify-content: space-around; align-items: center;"> COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> </div> 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	Determine Potassium content in fertilizer sample: a) Prepare working standard solution and calibrate analytical instrument. b) Process fertilizer sample for flame-photometer analysis and determine results by standard procedure.			
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.	Checked for availability of P standard as per requirement.			
4.	Set up equipments in accordance with the standard work instructions.			
5.	Conducted pre-use and safety checks.			
6.	Prepared sample according to requirement.			
7.	Processed sample as per standard testing method.			
8.	Analyzed sample using flame photometer as per SOP.			
9.	Performed calculations as per standard procedure			
10	Stored unused reagents and dispose of wastes as required by relevant regulations and codes.			
11	Cleaned and store equipment as per lab protocol			
12	Ensured use of fresh working Standards as per SOP.			
13	Run blank sample accordingly.			
14	Run Laboratory Control samples as per standard.			
15	Performed replicate/re-testing as per lab			

	standards.			
16	Recorded quality control data as per lab procedure.			
17	Noted down the Results on analyst workbook.			
18	Submitted the results to lab In-charge			
19	Cleared and restore work area.			
20	Ensured calibration of required equipment as per standard testing method.			
21	Performed dilutions in case of liquid sample before running any batch sample			
22	Disposed-off waste as per SOP.			
23	Ensured safety protocols as per standard requirement			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Feedback to the Candidate	

Candidate's Signature_____ **Assessor's Signature**_____