

## Self-Assessment Checklist

<b>Candidate Name</b>	
<b>Registration No.</b>	
<b>Qualification</b>	National Vocational Certificate level 2 to 5, in Agriculture Sector (Soil, water and fertilizer testing lab technician)
<b>Competency Standards</b>	Perform Boron (Water-Soluble) in Fertilizers through Spectrophotometric Method)
<b>Assessment Task</b>	<ol style="list-style-type: none"> <li>1. Prepare a sample of fertilizer for testing of water soluble boron</li> <li>2. Determine boron content of prepared sample by using spectrophotometric process</li> </ol>

I can.....

<b>Performance Criteria</b>	<b>Yes</b>	<b>No</b>
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 standard solution 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. Weight sample of according to requirement.	<input type="checkbox"/>	<input type="checkbox"/>
8. Process sample as per standard testing method.	<input type="checkbox"/>	<input type="checkbox"/>
9. Take reading and prepare standard curve as required	<input type="checkbox"/>	<input type="checkbox"/>
10. Perform calculations as per standard procedure.	<input type="checkbox"/>	<input type="checkbox"/>
11. Store unused reagents and dispose of wastes as required by relevant regulations and codes.	<input type="checkbox"/>	<input type="checkbox"/>
12. Clean and store equipment as per lab protocol	<input type="checkbox"/>	<input type="checkbox"/>
13. Run Laboratory Control samples as per standard.	<input type="checkbox"/>	<input type="checkbox"/>
14. Perform replicate/re-testing as per lab standards.	<input type="checkbox"/>	<input type="checkbox"/>
15. Record quality control data as per lab procedure.	<input type="checkbox"/>	<input type="checkbox"/>
16. Prepare quality control charts of quality assurance activities according to lab procedure	<input type="checkbox"/>	<input type="checkbox"/>
17. Always used valid standards	<input type="checkbox"/>	<input type="checkbox"/>
18. Note down Results on analyst workbook.	<input type="checkbox"/>	<input type="checkbox"/>
19. Perform detail calculations	<input type="checkbox"/>	<input type="checkbox"/>

20. Submit results to lab In-charge	<input type="text"/>	<input type="text"/>
21. Clear and restore work area	<input type="text"/>	<input type="text"/>
22. Ensure before taking any measurement that instrument has been calibrated.	<input type="text"/>	<input type="text"/>
23. Perform dilutions if required	<input type="text"/>	<input type="text"/>
24. Always use clean and transparent cuvettes	<input type="text"/>	<input type="text"/>

Candidate's Signature: \_\_\_\_\_ Assessor's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## Instruction Sheet for the Candidate

<b>Qualification</b>	<b>National Vocational Certificate level 2 to 5, in Agriculture Sector (Soil, water and fertilizer testing lab technician)</b>
<b>Competency Standard(s)</b>	Perform Boron (Water-Soluble) in Fertilizers through Spectrophotometric Method)
Candidate Details	Name_____ Registration/Roll Number_____
Guidance for Candidate	<b>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration &amp; assessment):</b> <ol style="list-style-type: none"> <li>1. Prepare a sample of fertilizer for testing of water soluble boron</li> <li>2. Determine boron content of prepared sample by using spectrophotometric process</li> </ol>
Time:240 Mins	During a practical assessment, under observation by an assessor, you are required to <ol style="list-style-type: none"> <li>1. Prepare a sample of fertilizer for testing of water soluble boron</li> <li>2. Determine boron content of prepared sample by using spectrophotometric process</li> </ol>
Minimum Evidence Required	Demonstrate the following criteria: <ol style="list-style-type: none"> <li>1. Check sample label for required test.</li> <li>2. Maintain Laboratory room temperature as per requirement.</li> <li>3. Check for availability of standard solution as per requirement.</li> <li>4. Set up equipments in accordance with the standard work instructions.</li> <li>5. Conduct pre-use and safety checks</li> <li>6. Prepare sample according to requirement</li> <li>7. Weight sample of according to requirement.</li> <li>8. Process sample as per standard testing method.</li> <li>9. Take reading and prepare standard curve as required</li> <li>10. Perform calculations as per standard procedure.</li> <li>11. Store unused reagents and dispose of wastes as required by relevant</li> </ol>

	<p>regulations and codes.</p> <p>12. Clean and store equipment as per lab protocol</p> <p>13. Run Laboratory Control samples as per standard.</p> <p>14. Perform replicate/re-testing as per lab standards.</p> <p>15. Record quality control data as per lab procedure.</p> <p>16. Prepare quality control charts of quality assurance activities according to lab procedure</p> <p>17. Always used valid standards</p> <p>18. Note down Results on analyst workbook.</p> <p>19. Perform detail calculations</p> <p>20. Submit results to lab In-charge</p> <p>21. Clear and restore work area</p> <p>22. Ensure before taking any measurement that instrument has been calibrated.</p> <p>23. Perform dilutions if required</p> <p>24. Always use clean and transparent cuvettes</p>
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### Assessors Judgment Guide

<b>Qualification</b>	National Vocational Certificate level 2 to 5, in Agriculture Sector (Soil, water and fertilizer testing lab technician)
<b>Competency Standard(s)</b>	Perform Boron (Water-Soluble) in Fertilizers through Spectrophotometric Method)
<b>Candidate Details</b>	Name: _____ Registration/Roll Number: -----Signature-----
<b>Assessment Outcome</b>	<p><b>COMPETENT</b> <input type="checkbox"/> <b>NOT YET COMPETENT</b> <input type="checkbox"/></p> <p>Name of the Assessor ----- Assessor's code: -----</p> <p>Signature: -----</p>

### 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		a) Prepare a sample of fertilizer for testing of water soluble boron b) Determine boron content of prepared sample by using spectrophotometric process		
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 standard solution as per requirement.			
4.	Set up equipment in accordance with the standard work instructions.			
5.	Conducted pre-use and safety checks			
6.	Prepared sample according to requirement			
7.	Weighed sample of according to requirement.			
8.	Processed sample as per standard testing method.			
9.	Took reading and prepare standard curve as required			
10	Performed calculations as per standard procedure.			
11	Stored unused reagents and dispose of wastes as required by relevant regulations and codes.			
12	Cleaned and store equipment as per lab protocol			
13	Run Laboratory Control samples as per standard.			
14	Performed replicate/re-testing as per lab standards.			
15	Recorded quality control data as per lab procedure.			
16	Prepared quality control charts of quality assurance activities according to lab procedure			
17	Always used valid standards			
18	Noted down Results on analyst workbook.			
19	Performed detail calculations			
20	Submitted results to lab In-charge			
21	Cleared and restore work area			
22	Ensured before taking any measurement			

	that instrument has been calibrated.			
23	Performed dilutions if required			
24	Always use cleaned and transparent cuvettes			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

### Feedback to the Candidate

Candidate's Signature _____ Assessor's Signature _____