

## Knowledge Assessment

<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>	<b>Perform Carbonates &amp; Bicarbonates test by Titrimetric Method</b>
<b>Candidate Details</b>	Name: _____  Registration/Roll Number: _____ Candidate Signature: _____ _____
<b>Assessment Outcome</b>	<div style="display: flex; justify-content: space-around; align-items: center;"> <span>COMPETENT <input type="checkbox"/></span> <span>NOT YET COMPETENT <input type="checkbox"/></span> </div> Name of the Assessor: _____ Assessor's code: _____  Signature of the Assessor: _____

Candidate's response is not required to be identical, but similar concepts and/or keywords must be used. Oral questioning may be used to clarify candidate understanding of topic and its application.

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)		Satisfactory	Not Satisfactory
1.	Why we perform Carbonates & Bicarbonates test for water?		
2.	Which indicator is used for carbonate determination by titrimetric method?		
	a) Phenolphthalein b) Eriochrome black T c) Methyl orange d) Potassium chromate		

3.	Which indicator is used for bicarbonate determination by titrimetric method?		
	a) Eriochrome black T b) Methyl orange c) Potassium chromate d) Murexide		
4.	Name the titrant used for determination of Carbonates & Bicarbonates?		
	a) Hydrochloric acid b) Sulphuric acid c) Acetic acid d) Ammonia		
5.	What is end point for determination of carbonate by titrimetric method?  a) Pink to colorless b) Yellow to black c) Wine to green d) Blue to red		
6.	What is end point for determination of bicarbonate by titrimetric method?		
	a) Pink to colorless b) Yellow to orange c) Wine to green d) Blue to red		
7.	In which unit you report Carbonates & Bicarbonates?		
8.	How will you Standardized HCl solution?  a) Standard sodium hydroxide b) Standard potassium chloride c) Standard potassium chromate d) Oxalic acid		

## Key

National Vocational Certificate level 2 to 5, in **Agriculture Sector (Soil, Water and Fertilizer Testing Lab Technician)**

### Perform Carbonates & Bicarbonates test by Titrimetric Method

<b>Questions</b> (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)		<b>Satisfactory</b>	<b>Not Satisfactory</b>
1.	Why we perform Carbonates & Bicarbonates test for water?		
	For the determination of alkalinity of water		
2.	Which indicator is used for carbonate determination by titrimetric method?		
	Phenolphthalein		
3.	Which indicator is used for bicarbonate determination by titrimetric method?		
	Methyl orange		
4.	Name the titrant used for determination of Carbonates & Bicarbonates?		
	Hydrochloric acid		
5.	What is end point for determination of carbonate by titrimetric method?		
	Pink to colorless		
6.	What is end point for determination of bicarbonate by titrimetric method?		
	Yellow to orange		

7.	In which unit you report Carbonates & Bicarbonates?		
	ppm (mg/L)		
8.	How will you Standardized HCl solution?		
	Standard sodium hydroxide		