

Knowledge Assessment

Qualification	National Vocational Certificate level 2 to 5, in Agriculture Sector (Soil, water and fertilizer testing lab technician)
Competency Standard(s)	Perform Calcium & Magnesium test of water by Titrimetric Method
Candidate Details	Name: _____ Registration/Roll Number: _____ Candidate 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 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 Calcium & Magnesium test of water?		
2.	How we determine water hardness?		
3.	Describe method for the determination of total hardness of water?		

4.	Name the indicator used in determination of total hardness of water?		
	a) Eriochrome black T b) Methyl orange c) Potassium chromate d) Sodium carbonate		
5.	What is the end point of total hardness of water?		
	a) Wine to blue b) Yellow to black c) Wine to green d) Blue to red		
6.	Which indicator is used for calcium?		
7.	How do you made 0.1 M EDTA solution?		
	33.23 gm in 1L		
8.	How will you standardize EDTA solution?		
	It is standardize with standard zinc solution		

Key

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

Perform Calcium & Magnesium test of water by Titrimetric Method

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)		Satisfactory	Not Satisfactory
1.	Why we perform Calcium & Magnesium test of water?		
	Because of water hardness. Water hardness is the amount of dissolved calcium and magnesium in the water. Hard water is high in dissolved minerals, largely calcium and magnesium.		
2.	How we determine water hardness?		
	It is determine by EDTA titrimetric method		
3.	Describe method for the determination of total hardness of water?		
	To the sample solution, add ammonia buffer and indicator in conical flask. Then titrate with Standard EDTA solution. The end point will determine by color change.		
4.	Name the indicator used in determination of total hardness of water?		
	Eriochrome black T		
5.	What is the end point of total hardness of water?		
	Wine to blue		
6.	Which indicator is used for calcium?		
	Patton & Reader and Murexide		
7.	How do you made 0.1 M EDTA solution?		

	33.23 gm in 1L		
8.	How will you standardize EDTA solution?		