

## 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</b>	<b>Perform Humic acid contents test in solid Fertilizer by gravimetric method</b>
<b>Purpose of Assessment</b>	Formative Assessment
<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><b>COMPETENT</b> <input type="checkbox"/></span> <span><b>NOT YET COMPETENT</b> <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.	What are micro and macro nutrients in soil?		
2.	Define Humic acid in soil?		
3.	Define Precipitates?		
4.	What is meant by reagents?		
5.	Explain the function of ethanol?		

6.	Define control sample?		
7.	What does DTPA stands for?		
8.	Define dilution?		
9.	What is the purpose of calibration?		

## Key

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

**Perform Humic acid contents test in solid Fertilizer by gravimetric 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.	What are micro and macro nutrients in soil?		
	The macronutrients supplied by soil includes nitrogen, phosphorus, potassium, sulphur, magnesium and calcium. whereas micronutrients or trace elements, supplied by the soil are molybdenum, copper, zinc, manganese, iron, nickel, boron and chlorine.		
2.	Define Humic acid in soil?		
	Humic acid is a group of molecules that bind to and help plant roots to receive water and nutrients.		
3.	Define Precipitates?		
	A precipitate is an insoluble solid that emerges from a liquid solution. The process of making precipitate is called precipitation.		
4.	What is meant by reagent?		
	A reagent is a substance or compound that can facilitate a reaction.		
5.	Explain the function of ethanol?		
	It is an important industrial chemical which is used as a solvent, in the synthesis of other organic chemicals.		
6.	Define control sample?		
	It is a sample that remains the same throughout the experiment.		
7.	What does DTPA stands for?		
	Diethylenetriamine pentaacetate.		
8.	Define dilution?		

	Dilution is the process of decreasing the concentration of a solute in a solution.		
9.	What is the purpose of calibration?		
	It maintains accuracy, standardization and repeatability in measurements, assuring reliable results.		