

Knowledge Assessment

Qualification	National Vocational Certificate level 2 to 5, in Agriculture Sector (Soil, water and fertilizer testing lab technician)
Competency Standard(s)	Perform pH test for water by pH Meter
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.	What is pH?		
2.	What is pH used for?		
3.	Why is pH of 7 is neutral?		

4.	What is the range of pH meter?		
	a) 1-7 b) 1-14 c) 2-9 d) 6-9		
5.	What pH 7 is called?		
	Acidic Basic Neutral		
6.	What is the pH of pure water?		
	a) 6 b) 9 c) 8 d) 7		
7.	How is pH calculated?		
	a) pH = - log----- b) pH = + log-----		
8.	What is the pH of acidic solution?		
	a) 7 b) 9 c) 11 d) 5		

Key

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

Perform pH test for water by pH Meter

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)		Satisfactory	Not Satisfactory
1.	What is pH?		
	pH is one of the most common water quality tests performed. pH indicates the sample's acidity but is actually a measurement of the potential activity of hydrogen ions (H ⁺) in the sample.		
2.	Why is pH of 7 is neutral?		
	Ions are just atoms that have an electric charge on them, so H ⁺ is a hydrogen atom with charge of 1. Even in pure water ions tend to form due to random processes (producing some H ⁺ and OH ⁻ ions). The amount of H ⁺ that is made in pure water is about equal to a pH of 7 . That's why 7 is neutral .		
3.	What is the range of pH meter?		
	1-14		
4.	What pH 7 is called?		
	Neutral		
5.	What is the pH of pure water?		
	7		
6.	How is pH calculated?		

	- log [H ₃ O ⁺]		
7.	What is the pH of acidic solution?		
	5		