

**071906T4AEN**

**Agricultural Engineering Technician Level 6**

**ENG/OS/AGR/CR/04/6/A**

**Perform Soil and Water Conservation Activities**

**July/Aug 2023**



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION COUNCIL  
(TVET CDACC)**

**PRACTICAL ASSESSMENT**

**Time: 3 Hours**

**INSTRUCTIONS TO THE ASSESSOR**

1. You are required to mark the practical as the candidate performs the tasks.
2. You are required to take video clips at critical points.
3. Ensure the candidate has an identification tag pinned at the back and front near the shoulders showing Candidate's name and registration code.

## OBSERVATION CHECKLIST

<b>Candidate's name &amp; Registration Code</b>			
<b>Assessor's name &amp; Registration Code</b>			
<b>Venue of Assessment</b>			
<b>Date of assessment</b>			
<b>Items to be evaluated:</b> <i>Please award marks as appropriate. Give a brief comment on your observation.</i>	<b>Marks available</b>	<b>Marks obtained</b>	<b>Comments</b>
1. Wore PPEs (Gloves, safety boots/gumboots, and overall). <i>(Award one mark for any two of PPE donned as per workplace procedures)</i>	<b>2</b>		
2. Constructed <b>A</b> - frame structure <ul style="list-style-type: none"> <li>Selected appropriate tools and materials</li> <li>Measured timber to the correct length (2.06m stands x 2 pieces and 0.5 m tie)</li> <li>Cut timber to the measured lengths</li> <li>Joined the pieces of timber with nails to form the <b>A</b>- frame structure</li> <li>Measured the central point of the tie and marked it.</li> </ul> <i>(Award two marks for each correct activity or zero)</i>	<b>10</b>		
3. Determined the percentage slope of the land <ul style="list-style-type: none"> <li>Selected appropriate tools and materials</li> <li>Marked with a peg a point on one side of the land</li> <li>Marked with a peg another point on either upper side or lower side of the first peg (ensure they are in line along</li> </ul>	<b>10</b>		

<p>the slope)</p> <ul style="list-style-type: none"> <li>Used ranging rods, plumb bob, string, spirit level and tape measure to determine to measure the horizontal and vertical distances</li> <li>Calculated percentage slope of the land as, % slope = <math>\left(\frac{\text{Vertical distance}}{\text{Horizontal distance}} \times 100\right)</math></li> </ul> <p><i>Award two marks for each correct activity or zero</i></p>			
<p>4. Laid out fanya chini channel terraces</p> <ul style="list-style-type: none"> <li>Identified the correct site</li> <li>Selected appropriate tools</li> <li>Cleared the site</li> <li>Marked with a peg selected position on one side of the land</li> <li>Calculated the vertical interval using appropriate formula</li> <li>Marked the location of a point along the slope up or below the first peg using the calculated vertical interval</li> <li>Laid the terrace profiles to 5m length each using the A- frame and marked with pegs</li> </ul> <p><i>Award two marks for each correct activity or zero</i></p>	<b>14</b>		
<p>5. Excavated fanya chini channel terrace</p> <ul style="list-style-type: none"> <li>Selected appropriate tools</li> <li>Measured 60cm wide channel and marked with white lime on both sides to the required length</li> </ul>	<b>10</b>		

<ul style="list-style-type: none"> <li>Dug along the marked lines to a depth of 30cm throwing the soil downslope to form a ridge</li> <li>Ensured the side walls were straight and levelled the floor</li> <li>Planted nipper grass on the ridge</li> </ul> <p><i>Award two marks for each correct activity or zero</i></p>			
6. Cleaned tools	<b>2</b>		
7. Cleaned self	<b>1</b>		
8. Adhered to safety work place procedures according to instructions <i>(Award one mark or zero)</i>	<b>1</b>		
<b>Total</b>	<b>50</b>		
<b>ASSESSMENT OUTCOME</b>			
<p><b>The candidate was found to be:</b></p> <p style="text-align: center;">Competent <input type="checkbox"/>      Not yet competent <input type="checkbox"/></p> <p><i>(Please tick as appropriate)</i></p> <p><i>(The candidate is competent if the candidate obtains at least 50%)</i></p>			
<b>Feedback from candidate:</b>			
<b>Feedback to candidate:</b>			
<b>Candidate's Signature</b>		<b>Date</b>	
-----		-----	
<b>Assessor's Signature</b>		<b>Date</b>	
-----		-----	