

081105T4AEX

AGRICULTURAL EXTENSION LEVEL 5

AGR/OS/EXT/CR/07/5

Perform Soil and Water Conservation

July/August 2025



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

PRACTICAL ASSESSMENT

INSTRUCTIONS TO ASSESSOR:

1. Assess the candidate as the practical progresses observing the critical areas
2. You are required to mark the practical as the candidate perform the tasks
3. You are required to take video clips at critical points
4. Ensure the candidate has a name tag and registration code at the back and front

OBSERVATION CHECKLIST

Candidate's Name & Registration Code			
Assessor Name & Registration Code			
Venue of Assessment			
Date of Assessment			
Items to be Evaluated: <i>Please award marks as appropriate. Give a brief comment on your observation.</i>	Marks Available	Marks Obtained	Comments
TASK 1: DETERMINATION OF THE SLOPE OF LAND			
1. Wore the right personal protective attire <ul style="list-style-type: none"> • Dust coat • Gumboots/Safety boots • Mask • Gloves <i>(Award 0.5 mark for each)</i>	2		
2. Gathered necessary tools and equipment <ul style="list-style-type: none"> • Spirit level • Measuring tape • Measuring rod/pegs • String/sisal twine • Notebook and pen • Calculator <i>(Award 0.5 mark for each or zero)</i>	3		
3. Selected two points on the land <ul style="list-style-type: none"> • Use pegs/rods to mark two points along a slope • One higher (Point A) and Lower (Point B) 	6		

<ul style="list-style-type: none"> Tied the string/sisal twine between the two pegs <p><i>(Award 2 marks each)</i></p>			
<p>4. Measured the horizontal interval/distance (H.I)</p> <ul style="list-style-type: none"> Used the tape to measure the distance between Point A and Point B along the ground surface Recorded the measurement in Meters <p><i>(Award 2 marks each)</i></p>	4		
<p>5. Measured the vertical interval/distance (V.I)</p> <ul style="list-style-type: none"> Used the spirit level to determine the difference in elevation between the two points Recorded the measurement in Meters <p><i>(Award 1 mark each)</i></p>	2		
<p>6. Calculated the slope</p> <ul style="list-style-type: none"> Slope = (Vertical interval/ Horizontal interval) X 100 <p><i>(Award 1 mark for correct formula, 2 marks for correct workings)</i></p>	3		
<p>7. Interpreted the slope</p> <ul style="list-style-type: none"> 0–2% = flat (suitable for most farming) 3–5% = gentle slope (good for some farming, light mechanization) 6–10% = moderate slope (needs soil conservation measures) >10% = steep (high erosion risk; limited farming use) <p><i>(Award 2 marks for correct interpretation)</i></p>	2		
SUBTOTAL	22		
TASK 2: CONSTRUCTION OF A SEMI-CIRCULAR BUND WITH A RADIUS OF 1M			
<p>8. Selected and prepared the site</p>	6		

<ul style="list-style-type: none"> • Identified suitable site • Used a panga/slasher to clear vegetation • Raked the residues, rocks, and debris from the selected area <p><i>(Award 2 marks each)</i></p>			
<p>9. Prepared the layout and marked the selected site</p> <ul style="list-style-type: none"> • Used the tape measure, pegs, and string to mark the center of the bund. • Used a marked rope to trace the semicircular shape from the center point • Ensured the open end of the semi-circle faces uphill to catch and hold runoff. <p><i>(Award 2 marks each)</i></p>	6		
<p>10. Dug and excavated the soil:</p> <ul style="list-style-type: none"> • Dug the soil using Jembe/mattock • Used spade/shovel to excavate soil along the traced semicircular lines with a depth of 20-30 cm and width of 30-50 cm • Placed the excavated soil downhill of the trench to form the bund <p><i>(Award 2 marks each)</i></p>	6		
<p>11. Constructed the bund</p> <ul style="list-style-type: none"> • Built the bund with the excavated soil forming a compacted ridge with height of 25–50 cm depending on rainfall/runoff and a base width of 60–100 cm • Compacted the soil using hand rammers to strengthen the bund. <p><i>(Award 2 marks each)</i></p>	4		
<p>12. Shaped and stabilized the bund</p> <ul style="list-style-type: none"> • Shaped the bund to form a smooth curve 	4		

<ul style="list-style-type: none"> Firmed the bund well <p><i>(Award 2 mark each)</i></p>			
<p>13. Inspected and performed final adjustments</p> <ul style="list-style-type: none"> Checked the alignment, radius, and bund firmness. <p><i>(Award 2 mark)</i></p>	2		
<p>14. Cleaned, inspected, and stored tools and equipment</p> <ul style="list-style-type: none"> Cleaned and inspected tools and equipment for damage Stored tools and equipment <p><i>(Award 1 mark each)</i></p>	2		
SUBTOTAL	30		
GRAND TOTAL	52		

ASSESSMENT OUTCOME

The candidate was found to be:

Competent

Not yet Competent

(Please tick as appropriate)

(The candidate is competent if the candidate obtains at least 50%)

Feedback from the Candidate:

Feedback to the Candidate:

Candidate Signature

Date:

Assessor's Signature

Date
