

073206T4CEN

CIVIL ENGINEERING LEVEL 6

CON/OS/CET/CR/01/6

Conduct Material Testing

July/Aug 2025



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

PRACTICE ASSESSMENT

INSTRUCTIONS TO THE 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's 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:			
1. Wore PPEs (Safety boots, Overall, Helmet) (Award 3 marks or zero)	3		
2. Weighed a given amount of sand sample (Award 2 marks or zero)	2		
3. Cleaned the sieves and pan with brush and weighed them. (Award 1 mark for each sieve and pan 1x8=8marks)	8		
4. Arrange the sieves in order keeping sieve 4.75mm at the top and 75um at the bottom, followed by the pan (Award 4 marks or zero)	4		
5. Put the soil sample in the top sieve (4.75mm) (Award 2 marks or zero)	2		

6. shook the set using mechanical sieve shaker or manually for ten minutes. (Award 3 marks or zero)	3		
7. Weighed each sieve and pan with soil retained on each of them and recorded in the table provided. (Award 2 marks for each sieve and pan $2 \times 8 = 16 \text{ marks}$)	16		
Sub-Total 1	38		
TASK 2:			
8. Calculated the percentage of soil retained in each sieve and pan and tabulated results (mass retained in each sieve or pan / total weight) x 100 (Award 2 marks for each sieve and pan $2 \times 8 = 16 \text{ marks}$)	16		
9. Calculated the cumulative percentage retained in each sieve by summing up cumulatively from the first sieve to the pan (Award 2 marks or zero)	2		
10. The last value calculated was 100% (Award 2 marks or zero)	2		
11. Calculated the percentage sample passing each of the sieves and tabulated the results $(\% \text{ passing each sieve}) = 100\% - \text{cumulative percentage retained in each sieve.}$ (Award 2 marks for each sieve and pan	14		

$2 \times 7 = 14$ marks)			
Sub-Total 2	35		
TASK 3:			
12. Plotted the grading curve (Award 2 marks for each correctly plotted point $2 \times 7 = 14$ marks)	14		
13. Achieve a smooth curve (Award 4 marks or zero)	4		
Sub-Total 3	18		
GRAND TOTAL	90		
ASSESSMENT OUTCOME			
The candidate was found to be: Competent ☐ Not yet Competent ☐ (Please tick as appropriate) (The candidate is competent if the candidate is at least 50%)			
Feedback from the Candidate:			
Feedback to the Candidate:			
Candidate Signature		Date:	
_____		_____	
Assessor's Signature		Date	
_____		_____	