

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

TITLE

RESOURCES

INSTRUCTIONS TO CANDIDATE:

1. You are required to perform the following tasks
 - i. Carry out sieve analysis on the river and sample provided
 - ii. Fill the work sheet 1 provided by determining the following:
 - weight of aggregate retained in each sieve
 - percentage of soil retained on each sieve
 - cumulative percentage retained
 - percentage sample passing in each of the sieves
 - iii. Plot the grading curve on a semi-logarithmic Particle Size Distribution chart provided.
2. You have been provided with the following resources for the practical tasks:

TOOLS/EQUIPMENT	MATERIALS
• PPEs • Weighing Balance • Sieves (4.75mm, 2.00mm, 1.18mm, 425um, 300um, 150um, 75um, lid and Pan) • Scoop • Sieve brushes • Mechanical sieve shaker (optional)	• Oven /air river sand • semi-logarithmic curve • River sand

WORK SHEET 1: Sieve Analysis Grading Worksheet

Sieve sizes (mm or um)	Weight. of sieve	Weight. of sieve + soil	Weight. of soil retained	Percentage soil retained (%)	Cumulative percentage retained (%)	Percentage given (%)
4.75						
2.00						
1.18						
425						
300						
150						
75						
pan						
TOTAL						