

**051106T4APB**

**APPLIED BIOLOGY LEVEL 6**

**APB/OS/AB/CR/05/6**

**Carry Out Ecological and Soil Studies**

**July/August 2025**



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

**PRACTICE ASSESSMENT**

**Time: 3 HOURS**

**INSTRUCTIONS TO CANDIDATE:**

1. You are required to perform the following tasks
  - i. To estimate the population size of *Tagetes minuta* using Quadrat Method (Fill Table 1)
  - ii. To determine soil texture using the feel method
2. You have been provided with the following resources for the practical tasks:
  - i. Face mask
  - ii. Writing materials (booklet)
  - iii. Soil sample labelled A (Sand soil) in a beaker
  - iv. Soil sample labelled B (Silt) in a beaker
  - v. Pegs/Small Marking Flags
  - vi. Soil sample labelled C (Loam Soils) in a beaker

- vii. Quadrat (0.6 m x 0.6m)
- viii. Small placards
- ix. 500 mL of water in a wash bottle
- x. Disposal bins
- xi. Soil texture triangle

**Table 1 (21 Marks)**

| <b>Location A</b> |                      | <b>Location B</b> |                      | <b>Location C</b> |                      |
|-------------------|----------------------|-------------------|----------------------|-------------------|----------------------|
| <b>Toss</b>       | <b>No. of plants</b> | <b>Toss</b>       | <b>No. of plants</b> | <b>Toss</b>       | <b>No. of plants</b> |
| <b>1</b>          |                      | <b>1</b>          |                      | <b>1</b>          |                      |
| <b>2</b>          |                      | <b>2</b>          |                      | <b>2</b>          |                      |
| <b>3</b>          |                      | <b>3</b>          |                      | <b>3</b>          |                      |
| <b>4</b>          |                      | <b>4</b>          |                      | <b>4</b>          |                      |
| <b>5</b>          |                      | <b>5</b>          |                      | <b>5</b>          |                      |
| <b>Total</b>      |                      |                   |                      |                   |                      |
| <b>Average</b>    |                      |                   |                      |                   |                      |