

**051106T4APB**

**APPLIED BIOLOGY LEVEL 6**

**APB/OS/AB/CR/12/6/A**

**Perform Pharmacological and Toxicological Techniques**

**March/April 2025**



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

**PRACT**

**MENT**

**RS**

**INSTRUCTIONS TO CANDIDATE:**

1. You are required to perform the following tasks:

Task 1: Extract toxins from plant samples.

Task 2: Isolate and identify toxins through basic laboratory techniques.

- Heating.
- Using alcohol (Ethanol).

Task 3: Test for the presence of the following:

- Phenolic compounds.
- Glycosides.
- pH.

2. You have been provided with the following resources for the practical tasks:

- Fresh plant material
- Mortar and pestle

- Distilled water
- Ethanol
- Test tubes
- Test tube rack
- 50 ml beaker
- 100ml beaker
- Bunsen burner
- Water bath (Automatic)
- Ferric chloride solution
- pH indicator strips
- Universal pH chart
- Weighing balance
- Filter paper
- Filter funnel
- Water bath (Automatic) se
- Labels
- 10 ml measuring cylinder
- Dropper
- Boiling tube
- Writing material
- Face mask
- Disposable gloves

3. Tabulate your results below:

**Table A: Heating the Extract**

**Compounds**

|                | Yes(✓) | No (X) |
|----------------|--------|--------|
| Color change   |        |        |
| Precipitation  |        |        |
| Gas production |        |        |

**Table B: pH, Glycosides & Phenolic**

| Test               |             | Observation | Inference |
|--------------------|-------------|-------------|-----------|
| Glycosides         |             |             |           |
| Phenolic compounds |             |             |           |
| pH                 | Red litmus  |             |           |
|                    | Blue litmus |             |           |