

051106T4APB

APPLIED BIOLOGY LEVEL 6

APB/OS/AB/CR/12/6

Perform Pharmacological and Toxicological Techniques

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			
Assessors 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: To administer drugs to a live animal			
1. Wore PPEs • Mask • Gloves • Laboratory coat • Closed shoes <i>Award 1 mark each or 0</i>	4		
2. Sterilized the working area using appropriate sterilizing agent <i>Award 2 marks or 0</i>			
3. Restrained both rabbits in a cage <i>Award 1 mark or 0 for each</i>	2		
4. Prepared the apparatus for drug administration (on sterilized bench) • Selected two appropriate sizes of syringes • Selected two appropriate sizes of hypodermal needles • Attached the two hypodermal needles to the two syringes correctly <i>Award 2 mark or 0 for each</i>	6		
5. Determined the correct volume (dosage) of drugs to be injected into each rabbit • Weighed each rabbit and recorded the weight in a book • Determined the correct dosage for each rabbit based on weight as indicated on drug leaflet	6		

Recorded the drug to be administered in a table <i>Award 2 mark for each or 0</i>			
6. Drew the correct amount of drug X into prepared syringes - Shook the bottle containing drug - Removed the small metal covering the rubber cap. - Inverted the bottle and pressed the into the drug. - Drew the required amount <i>Award 1 mark for each or 0</i>	4		
7. Administered Drug X to the first rabbit - Obtained the rabbit from the cage - Restrained the rabbit humanely - Located the muscle mass – thigh - Shaved a small area around the thigh - Cleaned the injection site with spirit swab. - Held the syringe firmly and ins into the muscle at a 90-degree a in muscle - Inserted the syringe between $\frac{1}{2}$ and $\frac{3}{4}$ inch, depending on size of rabbit - Aspirated gently before injecting. - Redirected the needle if blood appeared - Injected the drug slowly and steadily - Gently massaged the injection site - Started the timer - Monitored the injection site <i>Award 1 mark for each or 0</i>	13		
8. Drew the correct amount of drug Y into the prepared syringes - Shook the bottle containing drug - Removed the small metal covering the rubber cap. - Inverted the bottle and pressed the into the drug.	4		

• Drew the required amount <i>Award 1 mark for each or 0</i>			
9. Repeated the procedure in Step 7 on the second rabbit <i>Award 1 mark for each or 0</i>	13		
Sub-Total 1	52		
TASK 2: Observe effects of drugs within 20 minutes			
1. Observed the rabbit's behaviour and recorded it after every five minutes Refer to Appendix 1 <i>Award 1 mark or zero (for each observation documented)</i>	44		
Sub-Total 2	44		
GRAND TOTAL	98		
ASSESS UTCOME			
The candidate was found to be: Competent ☐ Not yet Competent ☐ <i>(Please tick as appropriate)</i> <i>(The candidate is competent if the candidate obtains at least 50%)</i>			
Feedback from the Candidate:			
Feedback to the Candidate:			
Candidate Signature		Date:	
_____		_____	

Assessor's Signature 	Date
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Appendix 1

Observation Category	Time (post-injection)	Rabbit 1 (Drug X)	Rabbit 2 (Drug Y)
Substance Administered	Time of Injection:	Substance: _____ Amount: _____	Substance: _____ Amount: _____
Activity Level	0-5	No change	High
	5-10	No change	Moderate to low
	10-15	No change	Low
	15-20	No change	Low
Posture and Body Language	0-5	No change	Normal
	5-10	No change	Sternal/cranial recumbency; head drooping
	10-15	No change	Sternal/cranial recumbency; head drooping
	15-20	No change	Sternal/cranial recumbency; head drooping
Responsiveness to Stimuli (gentle tap, noise)	0-5	No change	Responsive
	5-10	No change	Reduced response
	10-15	No change	Reduced response
	15-20	No change	Reduced response
Breathing	0-5	No change	Normal breathing
	5-10	No change	Slowed breathing
	10-15	No change	Slowed breathing
	15-20	No change	Slowed breathing
Eye Appearance (Pupil Size, Eyelid Drooping)	0-5	No change	Normal

	5-10	No change	Slow blinking/lack of blinking; glazed appearance; pupil dilation
	10-15	No change	Slow blinking/lack of blinking; glazed appearance; pupil dilation
	15-20	No change	Slow blinking/lack of blinking; glazed appearance; pupil dilation