

072306T4LTH
LEATHER TECHNOLOGY LEVEL 6
TEX/OS/LT/CR/04/6
Manage Tannery Waste
July/August 2025



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

PRACTICE 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
OCCUPATIONAL HEALTH AND SAFETY			
1. Safety precautions			
• Wore the PPES	2		
• Identified apparatus and equipment	2		
• Proper use of apparatus	2		
• Organized work area <i>(award 2 marks each or zero)</i>	2		
TASK 1: MEASURE THE PH VALUE OF SAMPLE M (LIME LIQUOR) AND SAMPLE N (PICKLE LIQUOR)			
2. Correctly identified materials required:			
• Universal indicator paper	1		
• pH chart	1		
• 100 ml beaker	1		
• Labels	1		
<i>(award 1 mark for each point marks or zero)</i>			
3. Carry out pH value measurement			
• Labeled correctly 2 beakers (M and N)	2		
• Put about 50 ml of sample M and N into the two beakers respectively	2		
	2		

with the pH chart to determine the pH value of sample M and N separately Recorded observations/results in a table <i>(Award full marks for each or zero)</i>	3		
SUB TOTAL 1:	25		
TASK 2:DETERMINE PRESENCE OF SULPHIDES IN SAMPLE M (LIME LIQUOR)			
5 Identify materials and reagents require 100 ml beaker - Dropper - Test tube - Distilled water 10 ml measuring cylinder - Ferric chloride solution - Labels - Filter paper - Funnel <i>(award 6 marks for each point or zero)</i>	1 1 1 1 1 1 1 1		
6 Carried out qualitative analysis of sample M for the presence of sulphides			

- Observed precipitate formation and colour of the precipitate - Black precipitate indicated presence of sulphides in sample M/ absence of black precipitate indicated absence of sulphides in sample M - Recorded observations and results in a table <i>(Award full marks for each point or zero)</i>	2 4 4		
TASK 2:DETERMINE PRESENCE OF SULPHATES IN SAMPLE N (PICKLE LIQUOR)			
7. Identify materials and reagents required: 100 ml beaker - Dropper - Test tube - Distilled water 10 ml measuring cylinder - Barium chloride solution - Labels - Filter paper - Funnel <i>(award 8 marks for each point or zero)</i>	1 1 1 1 1 1 1 1 1		
8. Carried out qualitative analysis of sample N for the presence of sulphates: - Rinsed the test tube with distilled water - Measured about 5 ml of sample N and filtered into a clean test tube - Added 2 to 3 drops of ferric chloride solution to sample N and shook before leaving to stand for 5 minutes - Observed precipitate formation and colour of the precipitate - White precipitate indicated presence of sulphates in sample N/ absence of white precipitate indicated absence of sulphates in sample N - Recorded observations and results in a table <i>(Award full marks for each point or zero)</i>	2 2 2 2 2 4 4		

SUB TOTAL 2:	52		
TASK 4: DETERMINE THE TOTAL SUSPENDED SOLIDS FOR SAMPLE M (LIME LIQUOR)			
9. Identified materials required: • Labels • 500 ml beaker • 50 ml measuring cylinder • Filter paper • Funnel • Digital weighing scale <i>(Award 1 mark for each point or zero)</i>	1 1 1 1 1 1		
10. Determined the TSS of sample M: • Shook the contents of sample M before measuring • Accurately measured 200 ml of sample M using the 50 ml measuring cylinder into the 250 ml beaker • Prepared filtration set using a pre-weighed filter paper and filtered 20 of sample M into the 500 ml beaker • Dried the residue on the filter paper and weighed accurately <i>(Award 2 marks for each point or zero)</i>	2 2 2 2		
11. Calculated TSS: • Calculated the difference between the weight of the filter paper + solid residue and the filter paper • Recorded the results <i>(Award full marks for each point or zero)</i>	3 2		
TASK 5: DETERMINE THE TOTAL SUSPENDED SOLIDS FOR SAMPLE M (LIME LIQUOR)			
12. Identified materials required: • Labels • 500 ml beaker • 50 ml measuring cylinder • Filter paper • Funnel • Digital weighing scale	1 1 1 1 1		

and therefore must have been collected after deliming but during pickling since the pH was acidic. Sample M contained more TSS as compared to sample N. Liming liquor usually has more suspended solids as compared to pickling liquor <i>(Award full marks for each point or zero)</i>	2		
Task 8: HOUSE KEEPING AND WASTE DISPOSAL			
16. Housekeeping and waste disposal: - Cleaned working area and kept it free from chemical spills and unused solid waste. - Disposed unused liquid waste correctly - Sorted solid waste before disposing correctly.	2		
	2		
	2		
GRAND TOTAL	131		
ASSESSMENT OUTCOME			
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 _____