

072106T4FTC

FOOD TECHNOLOGY LEVEL 6

FOP/OS/FT/CR/01/6/A

Manage Quality of Food Products

March/April 2025



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

PRACTICAL ASSESSMENT

Time: 3 HOURS

OBSERVATION CHECKLIST

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 No.			
Assessor's name & Reg. code			
Venue of Assessment			
Date of assessment			
Items to be evaluated:	Marks available	Marks obtained	Comments
TASK 1: PREPARE 0.1M SODIUM HYDROXIDE			
1. Donned Personal Protective Equipment correctly i. White clean Lab coat ii. Closed flat shoes iii. Nitrile gloves <i>(Award 1 mark for each)</i>	3		
2. Calculated the amount of NaOH required <i>(Award 1 mark for computation and 1 mark for correct answer)</i>	2		
3. Weighed the exact amount of NaOH as calculated <i>(Award 1 mark or zero)</i>	1		
4. Added 150ml of distilled water into the volumetric flask <i>(Award 1 mark or zero)</i>	1		
5. Added all the weighed sodium hydroxide into the volumetric flask <i>(Award 1 mark or zero)</i>	1		
6. Mixed the contents of the volumetric flask by swirling until all the solid dissolves. <i>(Award 1 mark for proper mixing and 1 mark for no residue)</i>	2		
7. Topped with distilled water to the mark <i>(Award 1 mark or zero)</i>	1		

8. Labeled the solution as 0.1M NaOH (Award 1 mark or zero)	1		
Sub-total	12		
TASK 2: DETERMINE THE FREE FATTY ACIDS CONTENT			
9. Weighed duplicate samples each of: i. sample FB ii. sample FK iii. sample FU (Award 2 marks for each sample: 1 mark for weighing each and 1 mark for duplicate)	2 2 2		
10. Added 50ml of ethanol each to all the six samples in conical flasks (Award 1 mark for each sample)	6		
11. Shook each flask for the six samples thoroughly (Award 1 mark for each sample)	6		
12. Warmed each sample to 50°C (Award 1 mark for each sample)	6		
13. Added 2ml of phenolphthalein indicator to each warm sample in the conical flasks (Award 1 mark for each sample)	6		
14. Filled the burette with 0.1M NaOH. (Award 1 mark or zero)	1		
15. Recorded the initial burette reading for each titration run (Award 1 mark for each titration run)	6		
16. Performed each titration run to the endpoint (pink colour persisting for 15-20sec.) (Award 1 mark for each titration run)	6		
17. Recorded the final burette reading for each titration run.	6		

(Award 1 mark for each titration run)			
18. Computed average titre values for each sample for the three samples (Award 1 mark for averaging and 1 mark for correct value per duplicate sample)	6		
19. Computed the acid value for each sample (Award 1 mark for average value per sample)	3		
Sub total	58		
TASK 3: DETERMINE THE SMOKE POINT			
20. Weighed exactly 30 g of each oil sample (Award 1 mark for each sample)	3		
21. Put each sample on the hotplate (Award 1 mark for each sample)	3		
22. Started heating the samples with occasional stirring (Award 1 mark for each sample)	3		
23. Monitored the temperature change in every samples (Award 1 mark for each sample)	3		
24. Observed for signs of smoke/haze (Award 1 mark for each sample)	3		
25. Recorded the temperature at smoke point for each sample (Range: FB – 140-150; FK- 190-210; FU- 220-240) (Award 1 mark for each sample)	3		
Sub total	18		
STANDARD OPERATING PROCEDURES			
HYGIENE			
Good hygiene habits	2		

(Award 2 marks or zero)			
Clean uniform, well dressed hair (Award 2 marks or zero)	2		
Clean work surfaces (Award 2 marks or zero)	2		
Proper handling of materials (Award 2 marks or zero)	2		
Sub-total	08		
ORGANIZATION			
Proper identification and labelling (Award 2 marks or zero)	2		
Smooth work flow and time economy (Award 1 mark or zero)	1		
Cleaning while work is in progress (Award 2 marks or zero)	2		
Use of appropriate tools, materials and equipment (Award 2 marks or zero)	2		
Confidence and sequence of work (Award 2 marks or zero)	2		
Neatness of the working area (Award 2 marks or zero)	2		
Sub-Total	11		
ECONOMIC USE OF RESOURCES			
Ingredients (Award 1 mark or zero)	1		
Cleaning reagents (Award 1 mark or zero)	1		
Water	1		

(Award 1 mark or zero)			
Sub-total	03		
GRAND TOTAL	100		
<p>The candidate was found to be:</p> <p style="text-align: center;">Competent <input type="checkbox"/> Not yet competent <input type="checkbox"/></p> <p><i>(Please tick as appropriate)</i></p> <p><i>(The candidate is competent if s/he gets 50% of the items correct.)</i></p>			
Feedback from candidate:			
Feedback to candidate:			
Candidate's signature:	Date:		
Assessor's signature:	Date:		

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