

# **Assessment Evidence Guide**

**For**

**Food Technology**

**Level-4**

**(Summative)**



**National Vocational & Technical Training  
Commission Islamabad**

## Instruction Sheet for the Candidate

<b>Qualification</b>	National Vocational Certificate Level-4 in Food Technology
<b>Competency Standards</b>	<ol style="list-style-type: none"> <li>1. Apply Food Waste Management Techniques</li> <li>2. Perform Canning Process</li> <li>3. Perform Pickling Process</li> <li>4. Ensure Water Treatment in Food Industry</li> <li>5. Perform Non-Carbonated Beverage Processing</li> <li>6. Prepare Fermented Dairy products</li> <li>7. Prepare Non-Fermented Dairy Products</li> <li>8. Perform Egg Processing and Preservation</li> <li>9. Perform Sea Food Processing</li> <li>10. Prepare Snacks</li> </ol>
<b>Purpose of Assessment</b>	Summative Assessment
<b>Candidate Details</b>	Name _____ Registration Number _____
<b>Guidance for Candidate</b>	<p>To meet this qualification level, you are required to perform and demonstrate the procedures/skills of <b>canning, water filtration, yoghurt preparation and fish filleting</b> by following GMPs within 05 hours during assessment.</p> <p><b>Knowledge Assessment (Oral)</b></p>
<b>Time: 05 Hours</b>	<p>To meet this qualification standard, you are required to perform the following tasks during practical and knowledge assessment, under observation of an assessor:</p> <ol style="list-style-type: none"> <li>1. <b>Retort Fruits and Vegetables</b></li> <li>2. <b>Filter Water through Carbon Filtration</b></li> <li>3. <b>Prepare Yoghurt</b></li> <li>4. <b>Perform Filleting of Fish</b></li> </ol>
<b>Minimum Evidence Required</b>	<ol style="list-style-type: none"> <li>1. <b>Canning/Retorting of Fruits and Vegetables</b> <ol style="list-style-type: none"> <li>i. Perform syruping/ brining for fruits/vegetables.</li> <li>ii. Check cans leakage.</li> <li>iii. Perform the retort process according to given instructions.</li> <li>iv. Check retorted product meets the specification.</li> <li>v. Identify out-of-specification product.</li> </ol> </li> <li>2. <b>Water Filtration process through Carbon Filter</b> <ol style="list-style-type: none"> <li>i. Check pre and post Carbon filter</li> <li>ii. Change Carbon filter as per standard requirement</li> <li>iii. Operate RO water purifier</li> <li>iv. Operate TDS controller</li> <li>v. Determine TDS (Total Dissolved Solids)</li> </ol> </li> <li>3. <b>Preparation of Yoghurt through fermentation</b> <ol style="list-style-type: none"> <li>i. Prepare cultures to commence fermentation</li> <li>ii. Start the fermentation process and standardize milk for yogurt making as per product requirement</li> </ol> </li> </ol>

	<ul style="list-style-type: none"> <li>iii. Monitor control points to confirm that performance is maintained within specification</li> </ul> <p><b>4. Preparation of Fish Fillet</b></p> <ul style="list-style-type: none"> <li>i. Check freshness and grade fish according to standards</li> <li>ii. Perform Preparatory operations</li> <li>iii. Perform Cutting and filleting of fish</li> <li>iv. Pack and store fish products at recommended temperature</li> </ul>
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## Self-Assessment Checklist

<b>Candidate Name</b>	
<b>Registration No.</b>	
<b>Qualification</b>	National Vocational Certificate Level-4 in Food Technology
<b>Purpose of Assessment</b>	Summative Assessment
<b>Assessment Task</b>	1. Retort Fruits and Vegetables 2. Filter water through Carbon Filtration 3. Prepare Yoghurt 4. Perform filleting of Fish

I can.....

Performance Criteria	Yes	No
1. Perform syruping/ brining for fruits/vegetables	<input type="checkbox"/>	<input type="checkbox"/>
2. Check cans leakage	<input type="checkbox"/>	<input type="checkbox"/>
3. Perform the retort process according to given instructions	<input type="checkbox"/>	<input type="checkbox"/>
4. Check retorted product meets the specification	<input type="checkbox"/>	<input type="checkbox"/>
5. Identify out-of-specification product	<input type="checkbox"/>	<input type="checkbox"/>
6. Check pre and post Carbon filter	<input type="checkbox"/>	<input type="checkbox"/>
7. Change Carbon filter as per standard requirement	<input type="checkbox"/>	<input type="checkbox"/>
8. Operate RO water purifier	<input type="checkbox"/>	<input type="checkbox"/>
9. Operate TDS controller	<input type="checkbox"/>	<input type="checkbox"/>
10. Determine TDS (Total Dissolved Solids)	<input type="checkbox"/>	<input type="checkbox"/>
11. Prepare cultures to commence fermentation	<input type="checkbox"/>	<input type="checkbox"/>
12. Start the fermentation process and standardize milk for yogurt making as per product requirement	<input type="checkbox"/>	<input type="checkbox"/>
13. Monitor control points to confirm that performance is maintained within specification	<input type="checkbox"/>	<input type="checkbox"/>
14. Check freshness and grade fish according to standards	<input type="checkbox"/>	<input type="checkbox"/>
15. Perform preparatory operations	<input type="checkbox"/>	<input type="checkbox"/>
16. Perform cutting and filleting of fish	<input type="checkbox"/>	<input type="checkbox"/>
17. Pack and store fish products at recommended temperature	<input type="checkbox"/>	<input type="checkbox"/>

Candidate's Signature \_\_\_\_\_ Assessor's Signature \_\_\_\_\_

Date: \_\_\_\_\_

## Assessors Judgment Guide

<b>Qualification</b>	National Vocational Certificate Level-4 in Food Technology
<b>Purpose of Assessment</b>	Summative Assessment
<b>Candidate Details</b>	Name: _____ Registration Number: _____ Signature: _____
<b>Assessment Outcome</b>	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor _____ Assessor's code: _____ Signature: _____

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment		✓					
Other Requirement							

## Observation Checklist

<b>Assessment Task</b>	<b>1. Retort Fruits and Vegetables</b> <b>2. Filter water through carbon filtration</b> <b>3. Prepare yoghurt</b> <b>4. Perform filleting of fish</b>			
<b>During the practical assessment, candidate demonstrated the following:</b>		<b>Yes</b>	<b>No</b>	<b>Remarks</b>
1.	Performed Syruping/ brining for fruits/ vegetables			
2.	Checked cans leakage			
3.	Performed the retort process according to given instructions			
4.	Checked retorted product meets the specification			
5.	Identified out-of-specification product after retorting			
6.	Checked pre and post carbon filter			
7.	Changed carbon filter as per standard requirement			
8.	Operated RO water purifier			
9.	Operated TDS controller			
10.	Determined TDS (Total Dissolved Solids)			
11.	Prepared cultures to commence fermentation			
12.	Started the fermentation process and standardize milk for yogurt making as per product requirement			
13.	Monitored control points to confirm that performance is maintained within specification			
14.	Checked freshness and grade fish according to standards			
15.	Performed Preparatory operations			
16.	Performed Cutting and filleting of fish			
17.	Packed and stored fish products at recommended temperature			
<b>Competent</b> <input type="checkbox"/>		<b>Not Yet Competent</b> <input type="checkbox"/>		

# Knowledge Assessment

<b>Qualification</b>	National Vocational Certificate Level-4 in Food Technology
<b>Purpose of Assessment</b>	Summative Assessment
<b>Candidate Details</b>	Name: _____ Registration Number: _____ Candidate Signature: _____
<b>Assessment Outcome</b>	<b>COMPETENT</b> <input type="checkbox"/> <b>NOT YET COMPETENT</b> <input type="checkbox"/> Name of the Assessor: _____ Assessor's code: _____ Signature of the Assessor: _____

Candidate's response is not required to be identical, but similar concepts and/or keywords must be used. Oral questioning may be used to clarify candidate understanding of topic and its application.

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)		Satisfactory	Not Satisfactory
1.	Define canning?		
2.	Enlist the steps of canning?		
3.	What is brine?		
4.	What is hermetic sealing?		
5.	What is Refractometer?		
6.	Mention different types of water filters?		
7.	What is Reverse Osmosis (RO) Filtration?		
8.	What is Total Plate Count (TPC)?		

9.	What is TDS?		
10.	What is the role of culture in fermentation?		
11.	What is cheese?		
12.	What is whey?		
13.	What is pasteurization?		
14.	What is homogenization?		
15.	How fat is separated from milk?		
16.	What is SNF?		
17.	What is Spray Dryer?		
18.	What is meant by UHT?		
19.	How do we determine the freshness of fish?		
20.	What is meant by grading of fish?		
21.	How slime is removed from fish?		
22.	What is the storage temperature for processed fish?		
23.	What is Rennet?		



24.	What are viscera?		
25.	Define blanching?		
26.	What is lye peeling?		
27.	What is pitting?		
28.	What is abrasive peeler?		
29.	What is exhausting of cans?		
30.	Define sterilization?		

Feedback to the Candidate	
Candidate's Signature _____ Assessor's Signature _____	

## **List of Tools and Equipment**

<b>Sr. No.</b>	<b>List of Tools/Equipment</b>	<b>Quantity ( 25 Candidates)</b>
01	Cutting boards	10
02	Choppers	10
03	Knives	15
04	Can Fillers	01
05	Seamer	01
06	Refractometer	02
07	Salometer	02
08	Peelers/pitter/pulpers/juicer	01
09	Brining/Syruping vessels	02
10	Chiller/Freezer	01
11	Retort	01
12	Pasteurizer	01
13	Homogenizer	01
14	Test tubes	25
15	Petri plates	25
16	RO Pilot Plant	01
17	Carbon Filters	02
18	UV Filter	02
19	RO Membranes	10
20	Titration apparatus	01
21	pH meter	02
22	Fish Cutting Machine	01

## **List of Consumables**

<b>Sr. No.</b>	<b>List of Consumables</b>	<b>Quantity ( 25 Candidates)</b>
1	Milk	10 Lit.
2	Table Salt	1 kg
3	Preservatives ( Sodium Benzoate, Potassium Meta Bi sulphite )	100 g
4	Spices for seasoning/flavoring	500 g
5	Peas	2 kg
6	Aluminum Foil	1 roll
7	Cling Film Wraps	1 roll
8	Bacterial Culture	2 sachets
9	Apples	5 Kg
10	Vinegar	1 Lit.
11	Sugar	5 Kg
12	Glass Jars (500 ml)	1 Dozen
13	Fish (1 Kg/ Piece)	5 Pieces
14	Cooking Oil	2 Lit.
15	Paper filters Cartridge	2 Nos.