



QUALIFICATION FILE

Fruit Pulp Junior Processor

☒ Short Term Training (STT) ☐ Long Term Training (LTT) ☐ Apprenticeship

☒ Upskilling ☐ Dual/Flexi Qualification ☒ For ToT ☒ For ToA

☒ General ☐ Multi-skill (MS) ☐ Cross Sectoral (CS) ☐ Future Skills ☐ OEM

NCrF/NSQF Level: 3.0

Submitted By:

Food Industry Capacity and Skill Initiative (FICSI)

Shriram Bharatiya Kala Kendra, 3rd floor

1, Copernicus Marg, Mandi House, New Delhi- 110001

Table of Contents

Section 1: Basic Details	3
Section 2: Module Summary	6
NOS/s of Qualifications.....	6
Mandatory NOS/s:	6
Assessment - Minimum Qualifying Percentage.....	7
Section 3: Training Related	7
Section 4: Assessment Related	8
Section 5: Evidence of the need for the Qualification.....	9
Section 6: Annexure & Supporting Documents Check List.....	9
Annexure 1: Evidence of Level.....	10
Annexure 2: Tools and Equipment (Lab Set-Up)	15
Annexure 3: Industry Validations Summary	16
Annexure 4: Training & Employment Details	18
Annexure 5: Blended Learning	19
Annexure 6: Detailed Assessment Criteria	20
Annexure 7: Assessment Strategy	30
Annexure 8: Acronym and Glossary	32

Section 1: Basic Details

1.	Qualification Name	Fruit Pulp Junior Processor																
2.	Sector/s	Food Processing																
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing/previous qualification: 2022/FI/FICSI/06684 and Version 4.0	Qualification Name of existing/previous version: Fruit Pulp Processing Technician															
4.	a. OEM Name b. Qualification Name (Wherever applicable)	NA																
5.	National Qualification Register (NQR) Code &Version (Will be issued after NSQC approval)	QG-03-FI-03997-2025-V2-FICSI	6. NCrf/NSQF Level: 3.0															
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other (Wherever applicable specify multiple entry/exits also & provide details in annexure)	Certificate																
8.	Brief Description of the Qualification	The Fruit Pulp Junior Processor is responsible for handling and processing a variety of fruits to produce high-quality fruit-based products. This role involves overseeing the entire production process, from raw material preparation to the storage of finished products, ensuring adherence to quality and safety standards.																
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: <table border="1"> <thead> <tr> <th>S. No.</th> <th>Academic/Skill Qualification (with Specialization - if applicable)</th> <th>Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>10th grade pass or equivalent</td> <td></td> </tr> <tr> <td>2.</td> <td>8th grade pass</td> <td>3-year experience in Food industry</td> </tr> <tr> <td>3.</td> <td>Previous relevant Qualification of NSQF Level 2.0</td> <td>3-year experience in Food industry</td> </tr> <tr> <td>4.</td> <td>Previous relevant Qualification of NSQF Level 2.5</td> <td>1.5-year experience in Food industry</td> </tr> </tbody> </table>		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1.	10th grade pass or equivalent		2.	8th grade pass	3-year experience in Food industry	3.	Previous relevant Qualification of NSQF Level 2.0	3-year experience in Food industry	4.	Previous relevant Qualification of NSQF Level 2.5	1.5-year experience in Food industry
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																
1.	10th grade pass or equivalent																	
2.	8th grade pass	3-year experience in Food industry																
3.	Previous relevant Qualification of NSQF Level 2.0	3-year experience in Food industry																
4.	Previous relevant Qualification of NSQF Level 2.5	1.5-year experience in Food industry																
		b. Age: NA																
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))	Min: 13 Max: 15	11. Common Cost Norm Category (I/II/III) (wherever applicable): I															
12.	Any Licensing requirements for Undertaking Training on This Qualification (wherever applicable)	NA																

13.	Training Duration by Modes of Training Delivery (<i>Specify Total Duration as per selected training delivery modes and as per requirement of the qualification</i>)	Minimum Duration: ☒Offline ☐Online ☐Blended <table border="1"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>OJT Recommended (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>120</td> <td>180</td> <td>90</td> <td></td> <td>390</td> </tr> <tr> <td>Online</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> (Refer Blended Learning Annexure for details) Maximum Duration: ☒Offline ☐Online ☐Blended <table border="1"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>OJT Recommended (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>150</td> <td>210</td> <td>90</td> <td></td> <td>450</td> </tr> <tr> <td>Online</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> (Refer Blended Learning Annexure for details)	Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	120	180	90		390	Online						Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	150	210	90		450	Online					
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																																	
Classroom (offline)	120	180	90		390																																	
Online																																						
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																																	
Classroom (offline)	150	210	90		450																																	
Online																																						
14.	Aligned to NCO/ISCO Code/s (<i>if no code is available mention the same</i>)	NCO-2015/8160.2300,2400																																				
15.	Progression path after attaining the qualification (<i>Please show Professional and Academic progression</i>)	Fruit Pulp Junior Processor (L3) → Preservation Processor-Fruits and Vegetables (L4)																																				
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	Hindi																																				
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	☐ Yes ☒ No URLs of similar Qualifications:																																				
18.	Is the Job Role Amenable to Persons with Disability	☒ Yes ☐ No If "Yes", specify applicable type of Disability: <i>Hearing Impairments, Speech and Language disability.</i>																																				
19.	How Participation of Women will be Encouraged	The food processing sector has witnessed significant participation of women at the household level. FICSI aims to further enhance this by providing targeted training programs for women entrepreneurs in various food processing activities, such as pickle, jam, jelly, squash preparation, and bread and bakery products. By																																				

		equipping women with the necessary skills and knowledge, FICSI encourages them to start their own ventures and contributes to their economic empowerment. To support these initiatives, FICSI will offer handholding support for setting up businesses, ensuring that women have the guidance and resources they need to succeed. Additionally, FICSI proposes to upskill self-help groups through specialized training and capacity-building programs. These efforts aim to provide enhanced livelihood opportunities and foster entrepreneurial qualities among the beneficiaries, thereby increasing women's participation in the food processing sector. Furthermore, FICSI plans to undertake projects aimed at upskilling street food vendors, providing them with better livelihood opportunities and inculcating entrepreneurial qualities. FICSI is committed to creating an inclusive environment that supports and encourages the participation of women in various job roles within the food processing industry.
20.	Are Greening/ Environment Sustainability Aspects Covered <i>(Specify the NOS/Module which covers it)</i>	☒ Yes ☐ No (Covered in FIC/N9906 and DGT/VSQ/N0101)
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools ☒ Yes ☐ No Colleges ☒ Yes ☐ No
22.	Name and Contact Details of Submitting / Awarding Body SPOC <i>(In case of CS or MS, provide details of both Lead AB & Supporting ABs)</i>	Name: Mr. Sunil K Marwah Email: admin@ficsi.in Contact No.: 9711260230 Website: https://www.ficsi.in/
23.	Final Approval Date by NSQC: 01-05-2025	24. Validity Duration: 3 years 25. Next Review Date: 30-04-2028

Section 2: Module Summary

NOS/s of Qualifications

(In exceptional cases these could be described as components)

Mandatory NOS/s:

Specify the training duration and assessment criteria at NOS/ Module level. For further details refer curriculum document.

Th.-Theory **Pr.**-Practical **OJT**-On the Job Training **Man.**-Mandatory **Rec.**-Recommended **Proj.**-Project

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Prepare for Production	FIC/N9026, v1.0	Non-Core	3.0	2	20	40	-	-	60	30	50	-	20	100	20
2.	Produce fruit pulp from various fruits	FIC/N0122, v4.0	Core	3.0	7	30	90	90	-	210	30	50	-	20	100	40
3.	Apply food safety guidelines in Food Processing	FIC/N9906, v1.0	Non-Core	3.0	1	10	20	-	-	30	30	60	-	10	100	10
4.	Employability Skills (30 Hours)	DGT/VSQ/N0101, v1.0	Non-Core	2.0	1	30	-	-	-	30	20	30	-	-	50	10
Duration (in Hours) / Total Marks						11	90	150	90	330	110	190		50	350	80

Elective 1: Squash and Juice

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Produce Squash and Juice	FIC/N0103, v4.0	Core	3.0	2	30	30	-	-	60	30	50	-	20	100	20
Duration (in Hours) / Total Marks						2	30	30	-	60	30	50		20	100	20

Elective 2: Produce jam, jelly and ketchup

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Produce jam, jelly and ketchup	FIC/N0111, v3.0	Core	3.0	2	30	30	-	-	60	30	50	-	20	100	20
Duration (in Hours) / Total Marks					2	30	30	-		60	30	50		20	100	20

Assessment - Minimum Qualifying Percentage

Please specify **any one** of the following:

Minimum Pass Percentage – Aggregate at qualification level: 50 % (Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)

Minimum Pass Percentage – NOS/Module-wise: % (Every Trainee should score specified minimum passing percentage in each mandatory and selected elective NOS/Module to successfully clear the assessment.)

Section 3: Training Related

1.	Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	B.Sc or graduate/B.Tech/BE (Food technology or food Engineering or Food Science) with 2 years of industry experience and 1 year of training experience in food processing industry OR M.Sc/M.Tech/ME (Food technology or food Engineering or Food Science) with 1 years of industry experience and 1 year of training experience in the food processing industry
2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	B.Sc or graduate/B.Tech/BE (Food technology or food Engineering or Food Science) with 5 years industry and 1 year of training experience in food processing industry OR M.Sc/M.Tech/ME (Food technology or food Engineering or Food Science) with 4 years of industry experience and 1 year of training experience in the food processing industry

3.	Tools and Equipment Required for Training	☒ Yes ☐ No (If "Yes", details to be provided in Annexure)
4.	In Case of Revised Qualification, Details of Any Upskilling Required for Trainer	NA

Section 4: Assessment Related

1.	Assessor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	B.Sc or graduate/B.Tech/BE (Food technology or food Engineering or Food Science) with 3 years of industry experience and 1 year training experience in food processing industry OR M.Sc/M.Tech/ME (Food technology or food Engineering or Food Science) with 2 years of industry experience and 1 year training experience in food processing industry
2.	Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	B.Sc or graduate/B.Tech/BE (Food technology or food Engineering or Food Science) with 3 years of industry experience and 1 year training experience in food processing industry OR M.Sc/M.Tech/ME (Food technology or food Engineering or Food Science) with 2 years of industry experience and 1 year training experience in the food processing industry
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	B.Sc or graduate/B.Tech/BE (Food technology or food Engineering or Food Science) with 5 years industry and 1 year training experience in food processing industry OR M.Sc/M.Tech/ME (Food technology or food Engineering or Food Science) with 4 years of industry experience and 1 year training experience in the food processing industry
4.	Assessment Mode (Specify the assessment mode)	Offline
5.	Tools and Equipment Required for Assessment	☒ Same as for training ☐ Yes ☐ No (details to be provided in Annexure-if it is different for Assessment)

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): No
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): No
3.	Government /Industry initiatives/ requirement (Yes/No): No
4.	Number of Industry validation provided: 21
5.	Estimated nos. of persons to be trained and employed: 10,000
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: <i>This is an old QP. We have Ministry concurrence</i> If “No”, why:

Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	Annexure: NCrF/NSQF level justification based on NCrF level/NSQF descriptors <i>(Mandatory)</i>	Attached
2.	Annexure: List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	Attached
3.	Annexure: Detailed Assessment Criteria <i>(Mandatory)</i>	Attached
4.	Annexure: Assessment Strategy <i>(Mandatory)</i>	Attached
5.	Annexure: Blended Learning <i>(Mandatory, in case selected Mode of delivery is “Blended Learning”)</i>	NA
6.	Annexure: Multiple Entry-Exit Details <i>(Mandatory, in case qualification has multiple Entry-Exit)</i>	NA
7.	Annexure: Acronym and Glossary <i>(Optional)</i>	Attached
8.	Supporting Document: Model Curriculum <i>(Mandatory – Public view)</i>	Attached
9.	Supporting Document: Career Progression <i>(Mandatory - Public view)</i>	Attached
10.	Supporting Document: Occupational Map <i>(Mandatory)</i>	Attached
11.	Supporting Document: Assessment SOP <i>(Mandatory)</i>	Attached
12.	Any other document you wish to submit:	No

Annexure 1: Evidence of Level

NCrF/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relates to the NCrF/NSQF level descriptor	NCrF/NSQF Level
Professional Theoretical Knowledge/Process	The work requires familiar, predictable routines and situations with clear choices. Prepare for production - Plan for production - Clean and maintain work area, machineries, and tools for production - Organize for production Produce fruit pulp from various fruits - Wash and sort the fruits - Peel, de-seed, or de-stone the fruits - Perform fruit pulp extraction and pre-cooking activities - Utilize fruit pulp for further processing - Carry out aseptic sterilization and packing of fruit pulp - Can the fruit pulp - Perform post-production cleaning and equipment maintenance Apply food safety guidelines in Food Processing - Apply personal hygiene and follow Good Manufacturing practices at the workplace - Implement Food Safety and pre-requisite programs (PRP) at the workplace Produce Squash and Juice - Receive, wash, sort and slice fruits - Extract fruit juice - Pasteurize fruit juice - Clarify fruit juice - Prepare squash - Fill, pack and store juice and squash - Carry out the post-production activities Produce jam, jelly and ketchup - Prepare jam and jelly - Prepare ketchup - Fill and pack jam, jelly and ketchup	The Fruit Pulp Junior Processor should have a strong understanding of fruit processing techniques, equipment usage, and food safety regulations. They should be capable of managing production processes, maintaining hygiene standards, and ensuring quality control. The role involves carrying out predictable and familiar routines such as washing, sorting, and preparing fruits, extracting and processing fruit pulp, and applying aseptic sterilization and packaging techniques. Additionally, the processor should be skilled in producing fruit-based products like squash, juice, jam, jelly, and ketchup while following Good Manufacturing Practices (GMP) and food safety protocols. Equipment maintenance and post-production cleaning are also essential responsibilities. Hence, it falls under Level 3.	3.0

	Carry out post-production cleaning and regular maintenance of equipment		
Professional and Technical Skills/ Expertise/ Professional Knowledge	Factual knowledge of field of employment or study - Understand the principles of fruit processing, including washing, sorting, peeling, de-seeding, and de-stoning. - Know the procedures for fruit pulp extraction, pre-cooking, and further processing for product development. - Know how to perform aseptic sterilization and packing of fruit pulp to maintain product quality and safety. - Understand the methods for canning fruit pulp and the importance of proper sealing and preservation techniques. - Know how to clean and maintain the work area, machinery, and tools to ensure smooth production operations. - Understand the importance of personal hygiene and Good Manufacturing Practices (GMP) in food processing. - Know the procedures for implementing Food Safety and Pre-Requisite Programs (PRP) at the workplace. - Know how to receive, wash, sort, and slice fruits for juice extraction, ensuring efficiency and quality. - Understand the techniques for extracting and clarifying fruit juice while maintaining maximum yield and consistency. - Know how to pasteurize fruit juice to ensure product safety and extend shelf life. - Know the step-by-step process for preparing squash, ensuring the correct formulation and consistency. - Know how to fill, pack, and store juice and squash while following food safety regulations. - Understand the process of preparing jam and jelly, including ingredient selection, cooking, and setting techniques. - Know how to prepare ketchup with the right balance of consistency, flavor, and food safety standards. - Know the procedures for filling and packing jam, jelly, and ketchup while maintaining hygiene and quality control.	The Fruit Pulp Junior Processor should possess a thorough understanding of fruit processing techniques, including washing, sorting, peeling, de-seeding, and pulp extraction. They should be knowledgeable about aseptic sterilization, canning, and packaging methods to ensure product safety and quality. The role requires expertise in preparing fruit-based products such as juice, squash, jam, jelly, and ketchup while maintaining hygiene and food safety standards. Additionally, the processor should have the skills to conduct equipment maintenance, implement Good Manufacturing Practices (GMP), and comply with food safety regulations, including FSSAI guidelines. A strong understanding of quality control, food microbiology, and production planning is essential for ensuring efficient operations and high product standards. Hence, it falls under Level 3.	3.0

	• Know how to conduct post-production cleaning and perform regular maintenance of equipment to ensure operational efficiency. • Understand quality control techniques and food microbiology principles for assessing product quality based on physical parameters. • Know the types of sanitizers and disinfectants, their handling, and storage procedures in food processing. • Know how to follow organizational and FSSAI regulations related to food product safety, packaging, and labeling. • Understand production planning techniques to manage workflow, optimize resources, and maintain consistency in output.		
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	The participant should be able to: • Define the key principles of fruit processing and the importance of hygiene and quality control in food production. • Identify suitable fruits for processing based on quality parameters such as ripeness, texture, and shelf life. • Select appropriate tools, equipment, and sanitization methods for different stages of fruit pulp processing. • Plan production schedules efficiently to optimize workflow, reduce waste, and ensure timely output. • Organize workstations, raw materials, and equipment for seamless and efficient production processes. • Coordinate with team members to ensure smooth execution of tasks such as washing, peeling, extraction, and packaging. • Record production data, quality assessments, and inventory levels to maintain accuracy and compliance with food safety regulations. • Monitor the application of Good Manufacturing Practices (GMP) and food safety protocols to maintain high standards in production. • Maintain hygiene and sanitation of work areas, tools, and equipment to comply with food processing guidelines. • Supervise packaging and labeling processes to ensure adherence to legal and regulatory requirements. • Adapt to new food processing technologies and industry trends to improve efficiency and product quality. • Manage time effectively to handle multiple production tasks while meeting deadlines and quality standards. • Ensure compliance with FSSAI regulations and organizational policies for food safety and hygiene. • Evaluate product quality through sensory analysis, physical assessment,	The Fruit Pulp Junior Processor handles the preparation and production of fruit-based products, ensuring consistency in quality, safety, and hygiene. They identify and use appropriate equipment, ingredients, and techniques for tasks such as washing, sorting, peeling, de-seeding, pulp extraction, pasteurization, sterilization, packaging, and storage. They also follow standard procedures, monitor processing parameters, and implement food safety regulations. The processor is required to demonstrate specialized practical skills and perform both routine and non-routine fruit processing operations, focusing on precision, efficiency, and quality control. They work independently while also coordinating with team members, taking responsibility for their work. Therefore, this job role is considered at Level 3.	3.0

	and microbiological testing. • Apply problem-solving skills to address issues related to production efficiency, equipment maintenance, or product quality deviations. • Develop entrepreneurial skills to explore opportunities in fruit processing and related business ventures. • Communicate effectively with suppliers, supervisors, and team members to ensure smooth operations. • Optimize resource utilization to minimize production costs and maximize profitability in food processing. • Innovate and experiment with new recipes, flavors, and preservation techniques for product diversification. • Analyze market trends and customer preferences to create competitive and high-demand fruit-based products.		
Broad Learning Outcomes/Core Skill	Language to communicate written or oral, with required clarity, skill to basic arithmetic and algebraic principles, basic understanding of social political and natural environment. The job holder is expected to communicate with clarity, have basic arithmetic skills, and a basic understanding of the political and natural environment. For instance, s/he should be able to: • Communicate effectively in written and oral forms with supervisors, team members, and cross-department teams to ensure smooth workflow and resolve process-related issues. • Read and interpret standard operating procedures (SOPs), product specifications, and process flow charts to ensure adherence to production standards. • Record and document production parameters, quality control data, and maintenance logs for internal use and compliance with food safety regulations. • Apply basic arithmetic and algebraic principles to measure ingredients, calculate process parameters, monitor temperature and pressure settings, and ensure correct batch proportions. • Follow safety guidelines and standard practices in the workplace, ensuring adherence to personal hygiene, Good Manufacturing Practices (GMP), and regulatory requirements. • Understand the environmental impact of food processing activities and implement sustainable practices such as waste management and resource optimization. • Coordinate with team members to maintain efficiency in production, address operational issues, and improve workflow consistency.	The Fruit Pulp Junior Processor independently carries out specialized fruit processing tasks in both routine and non-routine situations, applying standard and non-standard procedures as required. They analyze production requirements, manage ingredient measurements, and execute complex processing techniques such as pulp extraction, pasteurization, sterilization, and packaging with minimal supervision. They are responsible for maintaining workplace cleanliness, ensuring the proper sanitation of tools and equipment, and adhering to hygiene and food safety standards as per organizational policies. Additionally, they identify and address operational challenges, evaluating multiple solutions to optimize product quality and efficiency. Refer to evidence provided in the adjacent column. Hence, this job role falls under Level 3.	3.0

	• Comprehend and implement workplace safety protocols and regulatory standards, ensuring compliance with FSSAI and other food safety regulations.		
Responsibility	Responsibility for own work and learning. • Plan for production • Clean and maintain work area, machineries, and tools for production • Organize for production • Wash and sort the fruits • Peel, de-seed, or de-stone the fruits • Perform fruit pulp extraction and pre-cooking activities • Utilize fruit pulp for further processing • Carry out aseptic sterilization and packing of fruit pulp • Can the fruit pulp • Perform post-production cleaning and equipment maintenance • Apply personal hygiene and follow Good Manufacturing practices at the workplace • Implement Food Safety and pre-requisite programs (PRP) at the workplace • Receive, wash, sort and slice fruits • Extract fruit juice • Pasteurize fruit juice • Clarify fruit juice • Prepare squash • Fill, pack and store juice and squash • Carry out the post-production activities • Prepare jam and jelly • Prepare ketchup • Fill and pack jam, jelly and ketchup • Carry out post-production cleaning and regular maintenance of equipment	The Fruit Pulp Junior Processor is responsible for handling and processing a variety of fruits to produce high-quality fruit-based products. This role involves overseeing the entire production process, from raw material preparation to the storage of finished products, ensuring adherence to quality and safety standards. Refer to evidence provided in adjacent column. Hence it falls under Level 3.	3.0

Annexure 2: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1.	pH Meter (Digital)	Nos	1
2.	Thermometer (Digital)	Nos	1
3.	Beakers	Nos	3
4.	Conical flasks	Nos	3
5.	Measuring cylinder	Nos	3
6.	Measuring flask	Nos	3
7.	Burette with burette stands	Nos	1
8.	Pipettes of assorted sizes	Nos	3
9.	Test tubes with test tube stand	Nos	10
10.	Glass rod	Nos	6
11.	Weighing balance (Digital)	Nos	1
12.	Brix meter/refractometer -	Nos	1
13.	Deep fridge -	Set	1
14.	Refrigerator	Nos	1
15.	Gas burner with cylinder	Nos	1
16.	Fruit tray	Nos	3
17.	Cutting knives	Nos	6
18.	Electric mixer	Nos	1
19.	Pressure cooker	Nos	1
20.	Coring knives	Nos	6
21.	Pitting knives	Nos	6
22.	Juice Extractor (Screw type)	Nos	1
23.	Pulper Electric	Nos	1
24.	Hygrometer	Nos	1
25.	Mechanical peeler/ Batch type for fruit and vegetable peeling	Nos	1
26.	Steam jacket kettle	Nos	2
27.	Baby Boiler/Diesel fuel/	Nos	1
28.	Sulphuring chamber	Nos	1
29.	Auto claves	Nos	1
30.	Lab Coat	Nos	30
31.	Gloves and Head Cover	Nos	30
32.	S.S.Vessels with lids	Nos	30
33.	S.S. Vessels with lids	Nos	3
34.	S.S.Vessels with lids	Nos	2
35.	Bostwick consistometer	Nos	2
36.	Can Reformer	Nos	1

37.	Can Flanger machine	Nos	1
38.	Can seaming machine	Nos	1
39.	Exhaust box	Nos	1
40.	Embossing machine	Nos	1

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Whiteboard
2. Projector
3. Computer/Laptop
4. Chairs
5. Tables
6. Whiteboard marker
7. Duster

Annexure 3: Industry Validations Summary

Provide the summary information of all the industry validations in table. This is not required for OEM qualifications.

S. No.	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1.	Ambriona Cacao Blends Pvt. Ltd.	Mr. Shubham Joshi	General Manager	302 The Summit Business Bay, H-2, Western Express Hwy, Nav Prabhat Society, Navpada, Vile Parle East, Vile Parle, Mumbai, Maharashtra 400057	7999833329	ambrionablends@gmail.com	
2.	Dhenki Foods Pvt. Ltd. (A Greenthink Ventures Pvt. Ltd. company)	Mr. Md. Arifuzzaman	Assistant Manager – Product Development	4th Floor, Monibhandar Building, WEBEL Bhaban Sector V, Salt Lake, Kolkata – 700091	7003490034	md.arifuzzaman@ingreens.in	https://www.linkedin.com/in/ari-fuzzaman-food-tech/
3.	Shree Sharnam Spices	Mr. Aayush Chandaliya	Chairperson and Partner	Lalakheda Chouraha, Ujjain Bypass, Jaora (MP)	7000697722	shreesharnamspices@gmail.com	
4.	Freakat Foods OPC PVT LTD	Mr. Rishabh Mahajan	Director	Plot no.2230,Phase ii,Sector 38, HSIIDC Rai, Industrial area, Sonipat-131029,Haryana	9996290209	freakatfoods@gmail.com	https://www.linkedin.com/in/rishabh-mahajan-57103ba3/
5.	Kayem Foods Industries Private Limited	Mr. Rajender Kumar Sharma	GM Operations & R&D	G.T Road Panipat ,132103	7206026011	rajender.sharma@kayemfoods.in	https://www.linkedin.com/in/rajender-kumar-sharma-88684030/

6.	Sahasra Food Consultancy	CH. Subramanyam	CEO	25-6-79/1,, Vijay Nagar Colony, Rahamatnagar, Kazipet, Telangana 506003	9393406062/ 8884627255	sahasra.chs@gmail.com	
7.	DS Group	Mr. Bikash Jain	Marketing Manager	C-6 – 10, DS Road, Sec -67, Noida	9999009564	bikash.jain@dsgroup.com	
8.	Ruhi Corporation	Mr. Vaibhav Kumar Jain	Chairman	No. 7, Namkeen & Allied Food Cluster, Industrial Park, Karamdi Rd, Ratlam, Madhya Pradesh-457001	7771970097	ruhicorp@gmail.com	
9.	Hatsun Agro Products Ltd.	Mr. Naresh R	QA Officer	No. 114, Aangadu Road, Sirinium Village, Nellore Road, Redhills, Chennai	9080224273	naresh.rrr@hap.in	
10.	Nagpal Agro Foods	Mr.Manpreet	Managing Director	Village Kahanpur ,Hadbasat No 10 Tehsil Amloah District Fatehgarh Sahib Punjab 140406	9780100128	info@freshbiteindia.com	
11.	Sirius Foods Pvt. Ltd.	Mr.Ram Raja Yadav	Assistant Manager – Food Production	C17 ,Phase-II ,Noida -201305 Gautam Budh Nagar, Uttar Pradesh	9208574082	yadav.ramraja06@gmail.com	
12.	Hari Ram Masala Co.	Mr.Hemant	Marketing Head	Plot No. 08, ROAD, Bahalgarh, Khewra, Sonipat, Haryana 131021	8070605111	Info.hrmfoods@gmail.com	
13.	Zhagram Bakes	Ms. Vishnupriya	Founder and Director	Jambukeshwarar Naga Rd Sri Akilandeswari Nagar, Thiruvanaikoil, Tiruchirappalli, Tamil Nadu 620005	9500070958	zhagarambakes@gmail.com	
14.	Diamond Foods	Mr.Anoop Tewari	Director	GF-20, Street 76, Sector 76, Noida	9971190364	anooptewari4@gmail.com, anooptewari4@rediff.com	
15.	Food Science and Nutrition, Yuvaraja's College (Autonomous)University	Dr. Devaki C S	Sr. Food Scientist	Mysore	9845308181	devaki.s.kiran@gmail.com	
16.	Mordip Food Consultant	Mr.Kunal M.Funde	Proprietor/Technical Head	102 Walani Road ,Asgaon ,Tah Pauni District Bhandara -441910	9403373016	kunalfunde94@gmail.com	
17.	Prahana Products Private Limited	Ms. Archana Devi Vijayaraman	Founder and CEO	Ground floor, Old no 18, new no 2A/6, Thiruvengadam Street, Kasturibai Nagar, Adyar Chennai600020	9717262377	archana@prahana.in	

18.	Reliance Consumer Products Limited	Mr.Bharath J	R&D Scientist	Chennai, Tamilnadu	9566776689	bharathjagasha@gmail.com	
19.	Department of Technical Education, Training & Skill Development, Government of West Bengal	Mr.Molla Salauddin	Lecturer	Plot No. B-7, AA-III, 2nd Floor, Newtown, Rajarhat, Kolkata, West Bengal 700160	8777268683	mollasalaudindin2010@gmail.com	
20.	Centre for Food Technology – Jiwaji University	Dr.Manoj Sharma	Coordinator	Jiwaji University Gwalior (M.P.), India	9926294789	Juft20@gmail.com , manojdrde@gmail.com	
21.	Country Delight, DS Group, V.R.S. Foods Limited.	Mr. Vishal Verma	Visiting Faculty and Consultant	Indore	9415626526	cppm24b10vishalv@iimdr.ac.in	

Annexure 4: Training & Employment Details

Training and Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities
2025-26	2000	2000	200	200	50	50
2026-27	4000	4000	300	300	25	25
2027-28	4000	4000	500	500	20	20

Data to be provided year-wise for next 3 years

Training, Assessment, Certification, and Placement Data for previous versions of qualifications:

Qualification Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed
2.0	2023-24	564	506	479									

Applicable for revised qualifications only, data to be provided year-wise for past 3 years.

List Schemes in which the previous version of Qualification was implemented:

1. SDIS-NULM-SUDA
2. PMKVY-4.0-CSCM STT
3. PMKVY-4.0-CSCM RPL
4. PMKVY-4.0-CSCM SP
5. RPL Campus

6. Short Term Training
7. Seekho aur Kamao (सीखो और कमाओ)- MoMA (NSDC)

Content availability for previous versions of qualifications:

☒ Participant Handbook ☒ Facilitator Guide ☒ Digital Content ☐ Qualification Handbook ☐ Any Other:

Languages in which Content is available: Hindi

Annexure 5: Blended Learning

Blended Learning Estimated Ratio & Recommended Tools:

Refer NCVET “Guidelines for Blended Learning for Vocational Education, Training & Skilling” available on:

<https://ncvet.gov.in/sites/default/files/Guidelines%20for%20Blended%20Learning%20for%20Vocational%20Education,%20Training%20&%20Skilling.pdf>

S. No.	Select the Components of the Qualification	List Recommended Tools – for all Selected Components	Offline : Online Ratio
1	☐ Theory/ Lectures - Imparting theoretical and conceptual knowledge	- Books/ e-books - Presentations - Reference Material - Audio / Video Modules	40:60
2	☐ Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	- Self-Learning Videos - Broadcasts - Mobile Learning - Curated Digital content	40:60
3	☐ Showing Practical Demonstrations to the learners	- Video Content - E-Resource library - AR/ VR/ XR	40:60
4	☐ Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	- Training tools (tools list attached) - Video Play - Presentations	40:60
5	☐ Tutorials/ Assignments/ Drill/ Practice	- Online Question Bank - Mobile Quick test app - MCQ based tests	40:60
6	☐ Proctored Monitoring/ Assessment/ Evaluation/ Examinations	- Assessment engine for Essays - Up-loadable file examinations - Mock test sessions	40:60
7	☐ On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training	- Online tests - Offline assessments	40:60

Annexure 6: Detailed Assessment Criteria

Detailed assessment criteria for each NOS/Module are as follows:

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
FIC/N9026: Prepare for production	<i>Plan for production</i>	13	21	-	9
	PC1. identify work requirements by obtaining instructions from the supervisor. Instructions: process chart, product flow chart, formulation, chart, etc.	2	3	-	1
	PC2. plan and prioritize tasks as per work schedule. Tasks: inspect, clean, maintain, verify, etc.	2	3	-	2
	PC3. estimate manpower and material requirements as per work requirements. Material: raw materials and packaging materials	3	4	-	2
	PC4. ensure the required quantity of raw materials, packaging materials, equipment, and manpower for production	2	4	-	2
	PC5. plan capacity utilization of machinery with respect to the processing time, production order, and batch size for each product	2	4	-	1
	PC6. plan the changeover to minimize the impact on production schedules	2	3	-	1
	<i>Clean and maintain work area, machinery, and tools for production</i>	11	18	-	7
	PC7. clean and maintain the work area as per organizational procedures	3	4	-	2
	PC8. clean and maintain the machines and tools and sanitize them as per the organization's specifications and standards	2	4	-	2
	PC9. dispose of the waste material at the designated place safely. Waste material: hazardous waste, food waste, packaging waste, etc.	2	4	-	1
	PC10. inspect the tools, equipment, and machinery to ascertain suitability for use	2	3	-	1
	PC11. report information such as faulty tools and equipment to the concerned authority	2	3	-	1
	<i>Organize for production</i>	6	11	-	4
	PC12. organize tools and equipment	2	4	-	2
	PC13. receive and organize production materials appropriately. Production materials: raw materials, packaging materials, etc.	2	4	-	1
	PC14. allot responsibilities/work to the assistants and helpers	2	3	-	1
Total Marks		30	50	-	20
FIC/N0122: Produce fruit pulp from various fruits	<i>Wash and sort the fruits</i>	3	6	-	3
	PC1. dump fruits into the washing tank to remove dirt, soil, dust, and unwanted sticky material	0.5	1	-	0.5
	PC2. transfer fruits from the washing tank to the washing line conveyor using a ladder conveyor	0.5	1	-	0.5
	PC3. rinse fruits with a high-pressure spraying system	0.5	1	-	0.5
	PC4. inspect and sort fruits using an optical sorting machine for faster and more accurate defect detection	0.5	1	-	0.5
	PC5. ensure that damaged, blemished, and rotten fruits are removed automatically using the sorting system	0.5	1	-	0.5
	PC6. maintain records of washing, sorting, and rejected fruits for traceability	0.5	1	-	0.5

	<i>Peel, de-seed, or de-stone the fruits</i>	<i>4</i>	<i>8</i>	<i>-</i>	<i>3</i>
PC7.	load sorted fruits into an automated peeling and de-seeding machine for efficient processing and reduced manual intervention	0.5	1	-	0.5
PC8.	ensure complete removal of peel or core using calibrated equipment and minimize wastage.	0.5	1	-	0.5
PC9.	wash peeled fruits with pump water or an open spraying system, following food safety regulations.	0.5	1	-	-
PC10.	observe the output from peeling/coring and manually check for any leftover peel or core residues	0.5	1	-	0.5
PC11.	dispose of or further process the peeled material/core separately, as per organizational standards and sustainability guidelines	0.5	1	-	-
PC12.	cut fruits to the required size manually or using an automated chopper/cutter/slicer machine for uniformity and consistency	0.5	1	-	0.5
PC13.	perform random sampling to ensure size consistency and proper removal of inedible parts	0.5	1	-	0.5
PC14.	maintain logbooks and quality records for peeling, coring, and slicing activities	0.5	1	-	0.5
	<i>Perform fruit pulp extraction and pre-cooking activities</i>	<i>7</i>	<i>10</i>	<i>-</i>	<i>3</i>
PC15.	extract fruit pulp using high-efficiency automated pulpers and refiners.	1	2	-	0.5
PC16.	collect the refined pulp in an automated collection tank.	1	1	-	0.5
PC17.	inspect pulp to ensure it is free from seeds and fibers	1	1	-	0.5
PC18.	replace damaged or clogged filter screens in the pulper cum finisher machine to maintain efficiency	0.5	1	-	-
PC19.	transfer the measured quantity of pulp into a steam-jacketed kettle/pre-cooking tank for controlled cooking	1	1	-	0.5
PC20.	set and monitor control parameters such as pressure, temperature, cooking time, and stirrer speed using PLC (Programmable Logic Controller) for precision	0.5	1	-	0.5
PC21.	check pulp consistency through texture analysis and measure Brix levels using a refractometer	1	1	-	-
PC22.	transfer the pre-cooked pulp into a de-aeration tank and then to a continuous evaporator for concentration	0.5	1	-	0.5
PC23.	send pulp samples to the quality lab for analysis as per FSSAI standards (Brix, pH, titratable acidity, etc.)	0.5	1	-	-
	<i>Utilize fruit pulp for further processing</i>	<i>2</i>	<i>4</i>	<i>-</i>	<i>2</i>
PC24.	use processed pulp for manufacturing RTS beverages, fruit juices, concentrates, and syrups	0.5	1	-	0.5
PC25.	ensure compliance with FSSAI product-specific standards: RTS Beverages: minimum 10% fruit content, Fruit Juices: 100% pure juice with no added sugar, Squashes/Syrups: minimum 25% fruit content, Sauces: minimum 8% fruit content, Ketchup: minimum 25% fruit content	0.5	1	-	0.5
PC26.	mix sugar, acidulants, stabilizers, and natural flavor enhancers as per recipe specifications	0.5	1	-	0.5
PC27.	conduct sensory evaluation (taste, aroma, mouthfeel, appearance) and viscosity tests to ensure the final product meets quality parameters before further processing	0.5	1	-	0.5

	<i>Carry out aseptic sterilization and packing of fruit pulp</i>	<i>5</i>	<i>8</i>	<i>-</i>	<i>3</i>
PC28.	transfer pre-cooked/de-aerated/concentrated pulp into an automated sterilization system before aseptic packing	1	1	-	0.5
PC29.	perform sterilization using SCADA (Supervisory Control and Data Acquisition) and PLC-based control systems for precise temperature and pressure adjustments	1	1	-	0.5
PC30.	maintain steam pressure and temperature in the sterilization process as per SOP	0.5	1	-	-
PC31.	ensure the aseptic surge tank maintains temperature until the pulp is filled	0.5	1	-	0.5
PC32.	place plastic liners in containers such as drums and cartons	0.5	1	-	-
PC33.	ensure labeling details (manufacturing date, expiry date, batch code, etc.) are printed accurately before filling	0.5	1	-	0.5
PC34.	automate the filling process using sterile closures and filling machines to reduce contamination risks	0.5	1	-	0.5
PC35.	transfer filled aseptic bags to the storage area, ensuring proper temperature control	0.5	1	-	0.5
	<i>Can the fruit pulp</i>	<i>7</i>	<i>10</i>	<i>-</i>	<i>4</i>
PC36.	operate automated canning machines equipped with SCADA and PLC for consistent and efficient filling	1	2	-	0.5
PC37.	inspect and remove defective/damaged cans using automated vision inspection systems	1	1	-	0.5
PC38.	sterilize empty cans using automated retort sterilization to enhance food safety and shelf life	0.5	1	-	0.5
PC39.	transfer pre-cooked/pre-heated pulp into the filling tank and adjust settings for temperature, volume, and agitator speed	1	1	-	0.5
PC40.	seal cans using automated seamers for an airtight closure	0.5	1	-	0.5
PC41.	load sealed cans into sterilization chambers and apply retort sterilization for extended shelf life	0.5	1	-	-
PC42.	cool sterilized cans using an automated water-cooling system and dry them thoroughly before storage	0.5	1	-	0.5
PC43.	perform leakage tests using automated pressure testing equipment and remove compromised cans	1	1	-	0.5
PC44.	pack labeled cans into cartons using automated carton packaging systems and ensure proper stacking in the storage area	1	1	-	0.5
	<i>Perform post-production cleaning and equipment maintenance</i>	<i>2</i>	<i>4</i>	<i>-</i>	<i>2</i>
PC45.	clean work area, machinery, equipment, and tools using CIP (Clean-in-Place) automated sanitization systems	0.5	1	-	0.5
PC46.	attend minor repairs/faults of machines and report major issues for automated system diagnostics and maintenance	0.5	1	-	0.5
PC47.	ensure SCADA/PLC systems are regularly updated and calibrated for optimum performance	0.5	1	-	0.5
PC48.	conduct periodic maintenance (daily/weekly/monthly/quarterly/annual) as per manufacturer's guidelines for all automated machines	0.5	1	-	0.5
	Total Marks	30	50	-	20
	<i>Apply personal hygiene and follow Good Manufacturing practices at workplace</i>	<i>22</i>	<i>44</i>	<i>-</i>	<i>6</i>

FIC/N9906: Apply food safety guidelines in Food Processing	PC1. follow a site relevant documented procedure for Personal Hygiene and Visitor/ Contractor rules.	2	4	-	-
	PC2. follow work instructions at levels of employees inside a food manufacturing site and ensure that the relevant instructions are well communicated and being followed at the fixed timelines.	2	4	-	2
	PC3. ensure timely participate and carry out the relevant training and awareness sessions on personal hygiene, GMP, and related topics.	2	4	-	-
	PC4. ensure timely medical examination from a prescribed and authorized doctor and comply with the guidelines of Schedule IV as described in Food Safety Standard Authority of India (FSSAI) guidelines.	2	4	-	-
	PC5. fill in data in the daily monitoring checklist related to personal hygiene, food safety, and GMP.	2	4	-	-
	PC6. follow a site-relevant documented procedure and area-wise work instructions for Good Manufacturing Practices (GMP) to be followed on the site. Procedure: Hand washing requirements, Gowning & De gowning protocols, cleaning, and sanitation of employee lockers, follow the protocols as laid down in the different categories of processing areas like Low Risk, High Risk, High Care areas, etc.	2	4	-	2
	PC7. follow all validated Do's & Don'ts inside a food manufacturing firm.	1	2	-	1
	PC8. follow man and materials movement throughout the production facility, to restrict unwanted hazards to cross-contaminate the products which are being manufactured in the facility.	2	4	-	-
	PC9. refer to the process flow charts, HACCP summary plan, and critical process parameters in each and respective areas of the production line.	1	2	-	1
	PC10. identify the material requirements such as manufacturing equipments, Utensils, and other processing aids, cleaning chemicals, and cleaning work instructions in all the relevant areas of the manufacturing facility. Also, a special focus shall be given to Allergens and their risks. Wherever required, the allergen requirements shall be separately addressed.	2	4	-	-
	PC11. ensure to properly tag and number all the equipment, machinery, tools, and other processing aids to keep proper traceability of the product being manufactured and handled at the site.	1	2	-	-
	PC12. follow and implement all training and awareness guidelines in the manufacturing area and regularly participate in training effectiveness for evaluation.	1	2	-	-
	PC13. participate in audits and address the aspects of Good Manufacturing Procedures, personal hygiene, and food safety.	1	2	-	-
	PC14. ensure the record keeping and documentation such as Daily Monitoring Sheets, Batch Traceability Records, machine records, product parameters, process control parameters, etc.	1	2	-	-
	<i>Implement food safety practices at the workplace</i>	<i>8</i>	<i>16</i>	<i>-</i>	<i>4</i>
	PC15. maintain updated facilities, equipment, and tool and design requirements to minimize the risks associated with the products being handled at the site.	2	4	-	-
	PC16. follow the instruction in the raw and packaging materials warehouse and ensure receiving material parameters match all the laid requirements. parameters: Incoming vehicles Visual report, storage, and handling requirements, hazardous	1	2	-	1

	and non- hazardous goods, allergens, cross-contamination risks, Quarantine, Accepted & rejected goods, monitoring temperature and humidity, etc.				
	PC17.follow FSSAI Schedule IV requirements related to Pest Control, Cleaning, and Sanitation, Utilities, Waste Disposal, Prevention of Cross- Contamination, allergen management, corrective action, preventive actions, food operation control etc.	2	4	-	2
	PC18.ensure timely check of the critical control points and product parameters.	1	2	-	-
	PC19.record keeping and documentation such as daily monitoring sheets, cleaning sheets, parameters, etc.	1	2	-	1
	PC20.report any food safety and GMP issue to the supervisor, if any.	1	2	-	-
	Total Marks	30	60	-	10
DGT/VSQ/N0101: Employability Skills (30 Hours)	<i>Introduction to Employability Skills</i>	1	1	-	-
	PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
	<i>Constitutional values – Citizenship</i>	1	1	-	-
	PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
	<i>Becoming a Professional in the 21st Century</i>	1	3	-	-
	PC3. explain 21st Century Skills such as Self- Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
	<i>Basic English Skills</i>	2	3	-	-
	PC4. speak with others using some basic English phrases or sentences	-	-	-	-
	<i>Communication Skills</i>	1	1	-	-
	PC5. follow good manners while communicating with others	-	-	-	-
	PC6. work with others in a team	-	-	-	-
	<i>Diversity & Inclusion</i>	1	1	-	-
	PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-
	PC8. report any issues related to sexual harassment	-	-	-	-
	<i>Financial and Legal Literacy</i>	3	4	-	-
	PC9. use various financial products and services safely and securely	-	-	-	-
	PC10. calculate income, expenses, savings etc.	-	-	-	-
	PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
	<i>Essential Digital Skills</i>	4	6	-	-
	PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-
	PC13. use internet and social media platforms securely and safely	-	-	-	-
	<i>Entrepreneurship</i>	3	5	-	-
	PC14. identify and assess opportunities for potential business	-	-	-	-
	PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
	<i>Customer Service</i>	2	2	-	-
	PC16. identify different types of customers	-	-	-	-
	PC17. identify customer needs and address them appropriately	-	-	-	-

	PC18. follow appropriate hygiene and grooming standards	-	-	-	-
	<i>Getting ready for apprenticeship & Jobs</i>	1	3	-	-
	PC19. create a basic biodata	-	-	-	-
	PC20. search for suitable jobs and apply	-	-	-	-
	PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
	Total Marks	20	30	-	-
FIC/N0103: Produce Squash and Juice	<i>Receive, wash, sort and slice fruits</i>	3	5	-	2
	PC1. check the weight and quality of the fruits received from the supplier/vendor based on appearance, colour, texture, maturity, etc.	0.5	1	-	0.5
	PC2. wash fruits using water to remove dirt, soil and other impurities from fruits	0.5	1	-	-
	PC3. rinse fruits by spraying fresh water on them at the recommended pressure	0.5	1	-	0.5
	PC4. examine and remove damaged, blemished and rotten fruits, and dispose of them following the standard procedure	0.5	1	-	0.5
	PC5. cut/grate fruits to the required size and collect the sliced/grated fruits hygienically for further processing	1	1	-	0.5
	<i>Extract fruit juice</i>	5	9	-	4
	PC6. prepare fruits by sorting and removing stems, peels, and seeds, as appropriate for fruit types such as grapes, berries, citrus, apples, and pears	1	2	-	1
	PC7. process fruits using suitable methods such as grating, crushing, or pressing to extract juice, ensuring hygiene and minimal nutrient loss. - use manual or mechanical pressing for soft fruits like grapes and berries. - use citrus juicers (manual or electric) for oranges, lemons, etc., after peeling and deseeding. - grate or pulp hard fruits like apples and pears, followed by pressing to extract juice.	1	2	-	1
	PC8. apply appropriate enzymes in correct quantities and durations to improve juice extraction efficiency, based on the fruit type and processing method	1	2	-	1
	PC9. filter and collect the extracted juice to remove pulp and suspended particles, ensuring clarity and proper texture.	1	1	-	0.5
	PC10. assess the final juice quality based on appearance, colour, consistency, flavour, and taste, ensuring it meets standard specifications. collect the extracted citrus juice, maintaining hygiene	1	2	-	0.5
	<i>Pasteurize fruit juice</i>	3	4	-	2
	PC11. concentrate fruit juice and recover aroma	1	1	-	0.5
	PC12. pasteurize fruit juice at the recommended temperature and other process parameters	1	1	-	0.5
	PC13. cool the pasteurized juice to the required temperature	0.5	1	-	0.5
	PC14. collect the pasteurized juice, ensuring hygiene	0.5	1	-	0.5
	<i>Clarify fruit juice</i>	4	6	-	2
	PC15. determine the quantity of enzymes required for the clarification of juice, based on the formulation chart	1	1	-	0.5
	PC16. add the required quantity of enzymes to the pasteurized juice	0.5	1	-	0.5
	PC17. identify and remove the smallest particles from enzyme-treated juice to obtain clear juice	0.5	1	-	-

PC18.	check the quality of juice based on colour, appearance, flavour, taste, etc.	0.5	1	-	0.5
PC19.	prepare juice samples and coordinate their quality analysis with the quality-testing lab to ensure conformance to the applicable standards	1	1	-	-
PC20.	store the processed juice at the recommended temperature and humidity until packaging or further processing	0.5	1	-	0.5
<i>Prepare squash</i>		<i>6</i>	<i>11</i>	<i>-</i>	<i>4</i>
PC21.	prepare sugar syrup using the recommended quantity of sugar and permitted acids	0.5	1	-	-
PC22.	maintain the recommended pressure and temperature for the appropriate duration to heat the syrup	0.5	1	-	0.5
PC23.	check the quality of sugar syrup to ensure conformance to the applicable specifications and standards	0.5	1	-	0.5
PC24.	filter the sugar syrup to remove undesirable particles and sediments	0.5	1	-	0.5
PC25.	blend the recommended quantity of juice concentrate/ clarified juice, water, sugar syrup, acids, preservatives, colour, flavour at the appropriate mixing speed and duration	0.5	2	-	0.5
PC26.	collect squash sample and check for uniform mixing	0.5	1	-	0.5
PC27.	pasteurize the squash blend at the recommended pressure, temperature and process parameters	1	1	-	0.5
PC28.	cool the pasteurized squash following the appropriate method	0.5	1	-	0.5
PC29.	check the quality of pasteurized squash based on appearance, colour, consistency, flavour, taste etc.	1	1	-	0.5
PC30.	sample squash and coordinate with the quality-testing lab for the quality analysis of squash to ensure conformance to the applicable quality standards	0.5	1	-	-
<i>Fill, pack and store juice and squash</i>		<i>5</i>	<i>9</i>	<i>-</i>	<i>4</i>
PC31.	transfer the finished product into the filling tank of the packing machine up to the recommended level	0.5	1	-	0.5
PC32.	load the packing materials in the packaging machine, sealing materials in the sealing machine, and labels in the labelling machine, Packing material: Tetra packs, glass bottles, plastic containers, etc.	1	1	-	0.5
PC33.	set the appropriate filling volume on the filling machine according to the company standards	0.5	1	-	0.5
PC34.	set the date coding machine with the batch number, manufacturing date, expiry date, etc.	0.5	1	-	0.5
PC35.	carry out packing, sealing and labelling of juice and squash following the applicable procedure	0.5	1	-	0.5
PC36.	check the weight of the packed product periodically to ensure conformance to the applicable standards	0.5	1	-	0.5
PC37.	attach straw in the packaging of packed products	0.5	1	-	0.5
PC38.	store the packed and labelled products in storage area under the appropriate conditions, using the relevant storage accessories	0.5	1	-	0.5
PC39.	report discrepancies/concerns to the department supervisor for immediate action	0.5	1	-	-
<i>Carry out post production activities</i>		<i>4</i>	<i>6</i>	<i>-</i>	<i>2</i>

	PC40. clean the work area, tools, equipment and machinery using the approved cleaning agents and sanitizers	0.5	1	-	0.5
	PC41. follow the Clean-in-Place (CIP) and Clean-out-of-Place (COP) procedures	1	1	-	0.5
	PC42. carry out basic repair and maintenance of the tools, equipment and machinery	0.5	1	-	0.5
	PC43. follow the maintenance schedule and procedure for the tools, equipment and machinery in the manuals provided by the manufacturer	0.5	1	-	0.5
	PC44. collect and dispose of the waste generated during fruit juice extraction and squash production	1	1	-	-
	PC45. carry out appropriate documentation concerning the fruit juice extraction and squash production	0.5	1	-	-
	Total Marks	30	50	-	20
FIC/N0111: Produce jam, jelly and ketchup	<i>Prepare jam and jelly</i>	<i>15</i>	<i>20</i>	<i>-</i>	<i>8</i>
	PC1. transfer the required quantity of fruit pulp or juice from the holding tank/container to the cooking kettle/tank for jam/jelly preparation	1	2	-	0.5
	PC2. heat the fruit pulp or juice to the specified temperature and concentration.	1	1	-	0.5
	PC3. continuously stir the pulp to prevent sticking or scorching	1	1	-	-
	PC4. monitor pressure and temperature gauges, adjusting controls as needed to maintain optimal cooking conditions	1	1	-	0.5
	PC5. Ensure compliance with FSSAI guidelines for fruit content: Jam: minimum 45% fruit pulp, Jelly: Minimum 45% fruit extract, Marmalade: minimum 45% fruit ingredients, and Preserves: minimum 55% fruit content	1	1	-	0.5
	PC6. measure and transfer the specified quantity of water into the pre-mixing tank	1	1	-	-
	PC7. prepare a pectin/gelatin solution by adding the measured quantity to the pre-mixing tank with uniform stirring	1	1	-	0.5
	PC8. add ingredients to the pulp/juice in the kettle/tank as per the formulation chart	1	1	-	0.5
	PC9. operate the cooker and set the required temperature and pressure controls	1	1	-	0.5
	PC10. transfer the solution at a specific Brix and temperature into the cooker for high-temperature and high-pressure cooking	0.5	1	-	0.5
	PC11. observe the cooking process and use a refractometer to ensure completion	0.5	1	-	0.5
	PC12. assess the quality of the cooked product based on color, texture, appearance, and taste.	1	1	-	0.5
	PC13. collect samples and send them to the quality lab for analysis	1	1	-	0.5
	PC14. transfer the heated product manually or automatically into the hopper for bottled jam/jelly packaging	0.5	1	-	-
	PC15. transfer the heated product into the filling/molding machine hopper for jelly-making	0.5	1	-	0.5
	PC16. monitor the molding process, ensuring jellies meet the required shape, size, and weight, adjusting controls as necessary	0.5	1	-	0.5
	PC17. regulate the speed of the cooling conveyor and fans to bring jellies to the appropriate packaging temperature	0.5	1	-	0.5
	PC18. identify and rework defective jellies by heating them with pulp while discarding any contaminated products per organizational procedures	0.5	1	-	0.5
	PC19. transfer approved jellies to the packaging machine, either automatically via packing conveyors or manually using crates/containers.	0.5	1	-	0.5

	<i>Prepare ketchup</i>	6	12	-	6
PC20.	transfer the measured quantity of tomato pulp/puree from the holding tank/container into the cooking kettle as per formulation	0.5	1	-	0.5
PC21.	heat the tomato paste to the required temperature and thickness by opening the steam valves or lighting the burner, ensuring continuous stirring to prevent sticking or scorching.	0.5	1	-	0.5
PC22.	measure the required ingredients such as sugar, salt, spices, and vinegar according to the formulation chart.	0.5	1	-	0.5
PC23.	follow the prescribed sequence to add the measured ingredients into the tomato pulp/puree in the kettle, adhering to Standard Operating Procedures (SOP), and continue pre-cooking	0.5	1	-	0.5
PC24.	observe the pre-cooking process and assess the product quality based on consistency, feel, color, and Brix levels using a refractometer	0.5	1	-	0.5
PC25.	ensure compliance with FSSAI fruit content guidelines: Tomato Ketchup must contain a minimum of 25% tomato solids and tomato Sauce must contain a minimum of 15% tomato solids	0.5	1	-	0.5
PC26.	transfer the pre-cooked mixture at a specific Brix and temperature into the cooker for further processing at higher temperature and pressure	0.5	1	-	0.5
PC27.	Calibrate the refractometer using a standard solution before measuring the Brix level of the product to ensure accuracy	0.5	1	-	0.5
PC28.	observe the cooking process and check the product in the calibrated refractometer to confirm the required concentration and consistency	0.5	1	-	0.5
PC29.	evaluate the quality of the cooked product based on its physical parameters such as color, appearance, texture, and taste	0.5	1	-	0.5
PC30.	take a sample of the cooked product and send it to the quality lab for analysis to ensure compliance with food safety and quality standards	0.5	1	-	0.5
PC31.	transfer the final product into the filling tank/hopper of the packaging machine or manually fill hot product into packaging containers following hygiene and safety protocols	0.5	1	-	0.5
	<i>Fill and pack jam, jelly and ketchup</i>	6	13	-	4
PC32.	transfer the heated jam, jelly, molded jelly, or ketchup into the packaging machine by operating the valves and pump, ensuring smooth and controlled flow	0.5	1	-	0.5
PC33.	inspect packaging materials (glass bottles, plastic bottles, pouches, jars, laminates, etc.) and sealing components (lids, closures, etc.) for defects, cleanliness, and compliance with quality standards before loading them onto the packaging machine	0.5	1	-	0.5
PC34.	set the packaging machine parameters, including filling volume, speed, and container size, as per the product and packaging specifications	0.5	1	-	0.5
PC35.	operate the automatic packaging machine for bottle washing, container forming, filling, and sealing, or manually fill the hot product into containers, ensuring lids are properly placed and sealed mechanically or manually	0.5	1	-	-

PC36.	start the machine to fill hot products/jellies into containers, jars, or bottles and periodically check the weight of packed products to ensure they meet the prescribed standards	0.5	1	-	0.5
PC37.	inspect filled containers for proper sealing, labeling accuracy, and potential defects, ensuring compliance with quality control measures	0.5	1	-	0.5
PC38.	spray water on packed containers to cool and set the product (for jam and jelly), or arrange filled containers in racks and allow them to cool for the specified duration following SOP	0.5	1	-	-
PC39.	pass cooled bottles through the drying tunnel by setting air dryer controls (temperature, airflow rate, etc.) before labeling to ensure bottles are dry and ready for further processing	0.5	1	-	-
PC40.	load labels into the labeling machine and set batch coding details, including date of manufacture, best-before date, and batch number as per regulatory requirements	0.5	1	-	0.5
PC41.	conduct final inspection of labels to verify proper placement, alignment, and accuracy of printed details	0.5	1	-	0.5
PC42.	place packed and labeled products into cartons, ensuring proper stacking, and transfer them to the storage area, maintaining appropriate storage conditions as per SOP	0.5	1	-	-
PC43.	perform preventive maintenance of packaging machines, such as cleaning, lubrication, and checking for wear and tear, to ensure optimal performance and minimize downtime	0.5	1	-	0.5
PC44.	promptly report any discrepancies, equipment malfunctions, or quality concerns to the department supervisor for immediate resolution	-	1	-	-
<i>Carry out post-production cleaning and regular maintenance of equipment</i>		<i>3</i>	<i>5</i>	<i>-</i>	<i>2</i>
PC45.	clean the work area, machinery, equipment, and tools thoroughly using approved cleaning agents and sanitizers, ensuring compliance with hygiene and safety standards	1	1	-	-
PC46.	perform Clean-in-Place (CIP) procedures for automated cleaning of processing equipment, following standard protocols to remove residues and maintain sanitation	0.5	1	-	0.5
PC47.	conduct routine checks and attend to minor repairs or faults in machinery and equipment to ensure smooth operation and prevent production downtime	0.5	1	-	0.5
PC48.	follow the prescribed maintenance schedule (daily, weekly, monthly, quarterly, half-yearly, and annual) for all machines and equipment, adhering to SOPs and supplier instructions/manuals	0.5	1	-	0.5
PC49.	document all cleaning, repair, and maintenance activities, reporting major faults or irregularities to the supervisor for immediate corrective action	0.5	1	-	0.5
Total Marks		30	50	-	20
Grand Total		170	290	0	90

Annexure 7: Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

Assessment will be based on the concept of Independent Assessors empanelled with Assessment Agencies, identified, selected, trained and certified on Assessment techniques. These Assessors would be aligned to assess as per the laid down criteria.

Assessment Agency would conduct assessment only at the training centres of Training Partner or designated testing centers authorized by FICSI.

Ideally, the assessment will be a continuous process comprising of three distinct steps:

- A. Mid-term assessment
- B. Term/Final Assessment

Each National Occupational Standard (NOS) in the respective QPs will be assigned weightage. There in each Performance Criteria in the NOS will be assigned marks for theory and/or practical based on relative importance and criticality of function.

This will facilitate preparation of question bank / paper sets for each of the QPs. Each of these papers sets/question banks created by the Assessment Agency will be validated by the industry subject matter experts through FICSI, especially with regard to the practical test and the defined tolerances, finish, accuracy etc.

The following tools are proposed to be used for final assessment:

- i. Written Test: This will comprise of
 - (I True/False Statements,
 - (ii) Multiple Choice Questions,
 - (iii) Matching Type Questions. Online system for this will be preferred.
- ii. Practical Test: This will comprise a test job to be prepared as per project briefing following appropriate working steps, using necessary tools, equipment and instruments. Through observation it will be possible to ascertain candidate's aptitude, attention to details, quality consciousness etc. The end product will be measured against the pre-decided MCQ filled by the Assessor to gauge the level of his skill achievements.
- iii. Structured Interview: This tool will be used to assess the conceptual understanding and the behavioral aspects as regards the job role and the specific task at hand.

On the Job:

1. Each module (which covers the job profile of Fruit Pulp Junior Processor) will be assessed separately.
2. The candidate must score 50% in each module to successfully complete the OJT.
3. Tools of Assessment that will be used for assessing whether the candidate is having desired skills and etiquette of dealing with customers, understanding needs & requirements, assessing the customer and perform Soft Skills effectively:
 - Videos of Trainees during OJT
 - Answer Sheets of Question Banks
 - Assessing the Log Book entries of Trainees at Employer location
 - Employer Performance Feedback.
4. Assessment of each Module will ensure that the candidate is able to:

- Carry out production of fortified food
- Work effectively and efficiently as per schedules and timelines.
- Escalate the problem to appropriate authority.
- Implement safety practices.
- Optimize the use of resources to ensure less wastage and maximum conservation.

NSQC APPROVED

Annexure 8: Acronym and Glossary

Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework
OJT	On the Job Training
ES	Employability Skills
HACCP	Hazard Analysis and Critical Control Points
FSSAI	Food Safety and Standards Authority of India
NCVET	National Council for Vocational Education and Training
GMPs	Good Manufacturing Practices
PPE	Personal Protective Equipment
LOTO	Lockout/Tagout
SOS	Safety Data Sheets

Glossary

Term	Description
National Occupational Standards (NOS)	NOS define the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities on the basis of their main economic function, product, service or technology.
Long Term Training	Long-term skilling means any vocational training program undertaken for a year and above. https://ncvet.gov.in/sites/default/files/NCVET.pdf