



Qualification Pack

Millet Products Processor

Electives: Produce Millet Based Baked Products / Produce Instant Idli and Dosa Mix/ Produce Millet Based Extruded Products

QP Code: FIC/Q1011

Version: 1.0

NSQF Level: 3

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FIC/Q1011: Millet Products Processor

Brief Job Description

This course details the process of commercial production of various types of value-added millet products. The process involves the selection of millets and other raw materials, pre-processing, production, packaging, and storage.

Personal Attributes

People in this role should have the ability to interpret the production schedule and carry out work as per the available resources. The individual must possess reading, writing, and basic mathematic skills. He/she should have strong entrepreneurial skills, and maintain sound physical health and personal hygiene.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [FIC/N1038: Produce Millet Based Composite Flour](#)
2. [FIC/N9026: Prepare for production](#)
3. [FIC/N9906: Apply food safety guidelines in Food Processing](#)
4. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

Electives(mandatory to select at least one):

Elective 1: Produce Millet Based Baked Products

This unit is about baking various millet-based baked products such as cookies, muffins, bread, etc.

1. [FIC/N1039: Produce Millet Based Baked Products](#)

Elective 2: Produce Instant Idli and Dosa Mix

This unit focuses on the production of instant idli/dosa mix from various millets.

1. [FIC/N1040: Produce Instant Idli and Dosa Mix](#)

Elective 3: Produce Millet Based Extruded Products

This NOS unit is about producing various millet-based extruded products as per the organizational standards.

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1. [FIC/N1041: Produce Millet Based Extruded Products](#)

Qualification Pack (QP) Parameters

Sector	Food Processing
Sub-Sector	Food Grain Milling
Occupation	Processing-Food Grain Milling (including oilseeds)
Country	India
NSQF Level	3
Credits	12
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8160.1000,1900, 2015/7512.0100
Minimum Educational Qualification & Experience	<p>10th grade pass OR 8th grade pass (2 years of NTC/NAC after 8th) OR 8th grade pass (pursuing continuous schooling in regular school) OR 9th grade pass (pursuing continuous schooling in regular school) OR 8th grade pass with 2 Years of experience OF RELEVANT EXPERIENCE OR 9th grade pass with 1 Year of experience of relevant experience OR 5th grade pass with 5 Years of experience of relevant experience OR Previous relevant Qualification of NSQF Level (2.5) with 1-2 Years of experience of relevant experience OR Previous relevant Qualification of NSQF Level (2) with 3 Years of experience of relevant experience</p>
Minimum Level of Education for Training in School	Not Applicable
Pre-Requisite License or Training	NA

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Minimum Job Entry Age	16 Years
Last Reviewed On	NA
Next Review Date	13/06/2026
NSQC Approval Date	13/06/2023
Version	1.0
Reference code on NQR	QG-3-FI-00359-2023-V1-FICSI
NQR Version	1.0

Remarks:

NIL

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FIC/N1038: Produce Millet Based Composite Flour

Description

This unit is about producing a nutrient-enriched Millet Based Composite Flour.

Scope

The scope covers the following :

- Organize Raw Materials, Produce Millets Composite Flour, Packaging and Storage of Millet Based Composite Flour

Elements and Performance Criteria

Organize Raw Materials

To be competent, the user/individual on the job must be able to:

- PC1.** evaluate the work order and formulation provided by the company.
- PC2.** arrange all the necessary ingredients and raw materials for the order in accordance with the organization's norms.
- PC3.** ensure that the purchased raw materials are labelled in accordance with FSSAI (Labelling & Display) Guidelines.
- PC4.** inspect the product for foreign materials, offensive compounds, added coloring matter, weevils, rodents, etc. in accordance with FSSAI (Food Product Standards & Food Additives) Regulations.
- PC5.**
 - examines each ingredient's quality using physical and quantitative parameters to determine whether a product complies with the organization's standards.
 - physical characteristics: appearance, colour, smell, texture, etc.
 - quantitative parameters: protein content, moisture content, particle size etc.

Produce Millets Composite Flour

To be competent, the user/individual on the job must be able to:

- PC6.**
 - weigh and measure all ingredients/raw materials properly for the product or batch.
 - ingredients: various flour in different ratios, fat, water, sugar, additions, flavours
- PC7.** set and manage weighing/loading equipment that weighs, measures, and feeds each permissible ingredient—such as flour, fat, water, sugar, additives, flavors and colors, spices, etc.—for mixing and sifting.
- PC8.** sieve ingredients with the help of various sifters to achieve the desired particle size
- PC9.** collect all the ingredients and add them to a blender at once or sequentially in order to create the appropriate blends with desired consistency according to the organization's standards.
- PC10.** cover the blender openings/hoppers properly, set the blender speed, and begin blending.
- PC11.** dispense the composite flour in a storage container/trolley.
- PC12.** empty the blender and thoroughly clean it before the next batch.
- PC13.** take samples and examine the physical characteristics of the finished items, such as colour, appearance, particle size, moisture, bulk density etc as per organization's standards.

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PC14. pass the semi-finished goods through CCP to ensure the product is safe for consumption

PC15. dispose of the rejected batch safely using the organization's established protocols.

Packaging and Storage of Composite Flour

To be competent, the user/individual on the job must be able to:

PC16. ensure the use of packaging materials: (LDPE) Low-Density Polyethylene, (HDPE) High-Density Polyethylene, (MP) Metallized Polyester, and BOPP for packing millet-based composite flour on various packaging machines.

PC17. store the packed composite flour in airtight containers in a cool and dry place till dispatch by maintaining appropriate temperature and relative humidity.

PC18. perform the post-production cleaning as per organizational standards.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. the procedure for storing and organizing the raw ingredients and types of equipment as per standard organizational procedures.

KU2. labelling requirement as per FSSAI (Labelling & Display) Guidelines and significance of adhering to applicable FSSAI regulations for millets.

KU3. types and varieties of millets used

KU4. to operate and monitor multiple machines simultaneously to produce millet composite flour.

KU5. techniques for making mixes in precise ratios for recipe formulation

KU6. types of sifters and sieves used to sift the ingredients

KU7. the function and operation of blenders in blending process

KU8. Proficiency in performing routine maintenance tasks such as cleaning, lubricating, and inspecting machinery.

KU9. the fundamental calculations needed to produce a specific amount of final goods

KU10. fundamentals of food safety, food quality and critical control points (CCP) relevant to composite flour production

KU11. quality evaluation based on physical characteristics and quality parameters of ingredients and finished product

KU12. types of packaging and packaging materials used for packing composite millet flour and other food products

KU13. operational and functional component of packaging machines required for composite flour packaging

KU14. Conditions and standards for millet flour production, storage, and distribution

KU15. Waste management protocol of the organisation

KU16. Use and maintenance of tools, equipment, and machinery

KU17. good manufacturing practices (GMP)

KU18. hazard analysis and critical control point (HACCP)

Generic Skills (GS)

User/individual on the job needs to know how to:

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- GS1.** write common words/signs and set phrases used in the work
- GS2.** prepare checklists, reports, and fill out forms in a local language or Hindi/English
- GS3.** perform arithmetic calculations of addition, subtraction, multiplication, and division processes
- GS4.** read and interpret information (symbols, dimensions, terminology, dates, etc.) given in the local language or Hindi
- GS5.** state information, doubts, and concerns about work-related matters in a local language or Hindi/English
- GS6.** participate in workplace conversations and meetings and communicate by telephone in a local language or Hindi/English
- GS7.** plan daily tasks to achieve maximum productivity
- GS8.** establish priorities and deadlines in consultation with others and record them
- GS9.** be punctual and work as per agreed priorities
- GS10.** manage distractions and maintain workplace discipline
- GS11.** breakdown of relevant work processes into their constituent activities for ease of analysis
- GS12.** importance of taking responsibility for own work outcomes
- GS13.** importance of following laid down rules, procedures, instructions, and policies
- GS14.** importance of time management for achieving better results
- GS15.** think through the problem, evaluate the possible solution(s), and suggest an optimum /best possible solution(s)
- GS16.** identify immediate or temporary solutions to resolve delays

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Organize Raw Materials</i>	7	10	-	-
PC1. evaluate the work order and formulation provided by the company.	1	1	-	-
PC2. arrange all the necessary ingredients and raw materials for the order in accordance with the organization's norms.	2.5	2	-	-
PC3. ensure that the purchased raw materials are labelled in accordance with FSSAI (Labelling & Display) Guidelines.	1	1	-	-
PC4. inspect the product for foreign materials, offensive compounds, added coloring matter, weevils, rodents, etc. in accordance with FSSAI (Food Product Standards & Food Additives) Regulations.	1.5	2	-	-
PC5. <ul style="list-style-type: none"> examines each ingredient's quality using physical and quantitative parameters to determine whether a product complies with the organization's standards. physical characteristics: appearance, colour, smell, texture, etc. quantitative parameters: protein content, moisture content, particle size etc. 	1	4	-	-
<i>Produce Millets Composite Flour</i>	20	40	-	-
PC6. <ul style="list-style-type: none"> weigh and measure all ingredients/raw materials properly for the product or batch. ingredients: various flour in different ratios, fat, water, sugar, additions, flavours 	2	4	-	-
PC7. set and manage weighing/loading equipment that weighs, measures, and feeds each permissible ingredient—such as flour, fat, water, sugar, additives, flavors and colors, spices, etc.—for mixing and sifting.	2	4	-	-
PC8. sieve ingredients with the help of various sifters to achieve the desired particle size	3	5	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC9. collect all the ingredients and add them to a blender at once or sequentially in order to create the appropriate blends with desired consistency according to the organization's standards.	2	4	-	-
PC10. cover the blender openings/hoppers properly, set the blender speed, and begin blending.	1	2	-	-
PC11. dispense the composite flour in a storage container/trolley.	1	2	-	-
PC12. empty the blender and thoroughly clean it before the next batch.	1	2	-	-
PC13. take samples and examine the physical characteristics of the finished items, such as colour, appearance, particle size, moisture, bulk density etc as per organization's standards.	4	11	-	-
PC14. pass the semi-finished goods through CCP to ensure the product is safe for consumption	2	3	-	-
PC15. dispose of the rejected batch safely using the organization's established protocols.	2	3	-	-
<i>Packaging and Storage of Composite Flour</i>	8	15	-	-
PC16. ensure the use of packaging materials: (LDPE) Low-Density Polyethylene, (HDPE) High-Density Polyethylene, (MP) Metallized Polyester, and BOPP for packing millet-based composite flour on various packaging machines.	4	6	-	-
PC17. store the packed composite flour in airtight containers in a cool and dry place till dispatch by maintaining appropriate temperature and relative humidity.	2	2	-	-
PC18. perform the post-production cleaning as per organizational standards.	2	7	-	-
NOS Total	35	65	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	FIC/N1038
NOS Name	Produce Millet Based Composite Flour
Sector	Food Processing
Sub-Sector	Food Grain Milling
Occupation	Processing-Food Grain Milling (including oilseeds)
NSQF Level	3
Credits	3
Version	1.0
Last Reviewed Date	NA
Next Review Date	13/06/2026
NSQF Clearance Date	13/06/2023

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FIC/N9026: Prepare for production

Description

This NOS unit is about performing various tasks prior to production in the food processing industry.

Scope

The scope covers the following :

- Plan for production
- Clean and maintain work area, machineries, and tools for production
- Organize for production

Elements and Performance Criteria

Plan for production

To be competent, the user/individual on the job must be able to:

- PC1.** identify work requirements by obtaining instructions from the supervisor. Instructions: process chart, product flow chart, formulation, chart, etc.
- PC2.** plan and prioritize tasks as per work schedule. Tasks: inspect, clean, maintain, verify, etc.
- PC3.** estimate manpower and material requirements as per work requirement. Material: raw materials and packaging materials
- PC4.** ensure required quantity of raw materials, packaging materials, equipment, and manpower for production
- PC5.** plan capacity utilization of machinery with respect to the processing time, production order, and batch size for each product

Clean and maintain work area, machineries, and tools for production

To be competent, the user/individual on the job must be able to:

- PC6.** clean and maintain the work area as per organizational procedures
- PC7.** clean and maintain the machines and tools and sanitize them as per the organization's specifications and standards
- PC8.** dispose of the waste material at designated place safely. Waste material: hazardous waste, food waste, packaging waste, etc.
- PC9.** inspect the tools, equipment, and machinery to ascertain suitability for use
- PC10.** report information such as faulty tools and equipment to the concerned authority

Organize for production

To be competent, the user/individual on the job must be able to:

- PC11.** organize tools and equipment
- PC12.** receive and organize production materials appropriately. Production materials: raw materials, packaging materials, etc.
- PC13.** allot responsibilities/work to the assistants and helpers

Knowledge and Understanding (KU)

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The individual on the job needs to know and understand:

- KU1.** production planning process
- KU2.** analysis and interpretation of various process charts, product flow charts, etc.
- KU3.** resource management process
- KU4.** procedure to estimate manpower and raw material
- KU5.** capacity utilization calculation
- KU6.** organizational policies and SOP on cleanliness
- KU7.** operating procedure and general maintenance of food production machineries
- KU8.** waste management procedures
- KU9.** methods to inspect tools, equipment and machinery
- KU10.** procedure to allot work or responsibility to the team

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** read and interpret organizational policies, SOP, production charts, etc.
- GS2.** communicate effectively with subordinates as well as supervisors
- GS3.** plan and prioritize various tasks
- GS4.** be always punctual and courteous
- GS5.** organize all process/equipment manuals to access information easily
- GS6.** discuss task lists, schedules, and activities with the senior/supervisor

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Plan for production</i>	11	25	-	-
PC1. identify work requirements by obtaining instructions from the supervisor. Instructions: process chart, product flow chart, formulation, chart, etc.	3	6	-	-
PC2. plan and prioritize tasks as per work schedule. Tasks: inspect, clean, maintain, verify, etc.	2	5	-	-
PC3. estimate manpower and material requirements as per work requirement. Material: raw materials and packaging materials	2	4	-	-
PC4. ensure required quantity of raw materials, packaging materials, equipment, and manpower for production	2	5	-	-
PC5. plan capacity utilization of machinery with respect to the processing time, production order, and batch size for each product	2	5	-	-
<i>Clean and maintain work area, machineries, and tools for production</i>	14	32	-	-
PC6. clean and maintain the work area as per organizational procedures	3	7	-	-
PC7. clean and maintain the machines and tools and sanitize them as per the organization's specifications and standards	3	7	-	-
PC8. dispose of the waste material at designated place safely. Waste material: hazardous waste, food waste, packaging waste, etc.	3	7	-	-
PC9. inspect the tools, equipment, and machinery to ascertain suitability for use	3	6	-	-
PC10. report information such as faulty tools and equipment to the concerned authority	2	5	-	-
<i>Organize for production</i>	5	13	-	-
PC11. organize tools and equipment	2	7	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. receive and organize production materials appropriately. Production materials: raw materials, packaging materials, etc.	2	4	-	-
PC13. allot responsibilities/work to the assistants and helpers	1	2	-	-
NOS Total	30	70	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	FIC/N9026
NOS Name	Prepare for production
Sector	Food Processing
Sub-Sector	Generic
Occupation	Production
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	24/02/2022
Next Review Date	24/02/2025
NSQC Clearance Date	24/02/2022

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FIC/N9906: Apply food safety guidelines in Food Processing

Description

This unit covers the essential components of food safety, Good Manufacturing Practices (GMP), and personal hygiene in the food industry. It emphasizes the importance of individuals working in the food industry in protecting the health and well-being of consumers by following food safety protocols and procedures and ensuring the production of safe and high-quality food products.

Scope

The scope covers the following :

- Apply personal hygiene and follow Good Manufacturing practices at the workplace.
- Implement Food Safety and pre-requisite programs (PRP) at the workplace.

Elements and Performance Criteria

Apply personal hygiene and follow Good Manufacturing practices at workplace

To be competent, the user/individual on the job must be able to:

- PC1.** PC1. follow a site relevant documented procedure for Personal Hygiene and Visitor/ Contractor rules.
- PC2.** 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.
- PC3.** PC3. ensure timely participate and carry out the relevant training and awareness sessions on personal hygiene, GMP, and related topics.
- PC4.** 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.
- PC5.** PC5. fill in data in the daily monitoring checklist related to personal hygiene, food safety, and GMP.
- PC6.**
 - 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.
- PC7.** PC7. follow all validated Do's & Don'ts inside a food manufacturing firm.
- PC8.** 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.
- PC9.** PC9. refer to the process flow charts, HACCP summary plan, and critical process parameters in each and respective areas of the production line.
- PC10.** 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.

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- PC11.** 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.
- PC12.** PC12. follow and implement all training and awareness guidelines in the manufacturing area and regularly participate in training effectiveness for evaluation.
- PC13.** PC13. participate in audits and address the aspects of Good Manufacturing Procedures, personal hygiene, and food safety.
- PC14.** PC14. ensure the record keeping and documentation such as Daily Monitoring Sheets, Batch Traceability Records, machine records, product parameters, process control parameters, etc.

Implement food safety practices at the workplace

To be competent, the user/individual on the job must be able to:

- PC15.** PC15. maintain updated facilities, equipment, and tool and design requirements to minimize the risks associated with the products being handled at the site.
- PC16.** 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 and non-hazardous goods, allergens, cross-contamination risks, Quarantine, Accepted & rejected goods, monitoring temperature and humidity, etc.
- PC17.** 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.
- PC18.** PC18. ensure timely check of the critical control points and product parameters.
- PC19.** PC19. record keeping and documentation such as daily monitoring sheets, cleaning sheets, parameters, etc.
- PC20.** PC20. report any food safety and GMP issue to the supervisor, if any.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** importance of personal hygiene, GMP, visitors & contractor's rules. Associated risk in case of deviation from the standard policies and how the requirement is linked with the site's FSSAI License.
- KU2.** KU2. importance of training and work instruction delivered by the supervisors.
- KU3.** KU3. importance of filling the records and checklists, formats and how to ensure that the timely and effective completion is achieved.
- KU4.** KU4. knowledge of trainings and skills required to perform in food processing premises.
- KU5.** KU5. understand FSSAI Schedule IV requirements of food handlers and PRPs within the processing area
- KU6.** KU6. importance of timely medical examinations and awareness of communicable diseases
- KU7.** Understanding of Do's & Don'ts, intellect mindset to understand the visual illustrations
- KU8.** KU8. understanding about Site Zoning plans.
- KU9.** KU9. awareness of layout which would help to demarcate the defined movements of RM, PM, FG, and wastes generated during the processing of goods. This one lays a framework to launch Good Manufacturing Practices (GMP) successfully and effectively on site.

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- KU10.** KU10. understand the manufacturing process, product parameters and process control parameters such as CCPs
- KU11.** KU11. understanding about Hazard Analysis and Critical Control Points (HACCP)
- KU12.** KU12. understanding about Allergens and their types and controls to monitor effective handling of allergen raw materials on site.
- KU13.** KU13. basic understanding of traceability and mock recall
- KU14.** KU14. awareness about Internal & external Audits
- KU15.** KU15. understanding for RCA CAPA, cleaning and sanitation
- KU16.** KU16. awareness about record keeping and data monitoring in various sheets as per organizational requirement

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** GS1. read and comprehend basic content to read labels, charts, signages, symbols and product manuals
- GS2.** GS2. communicate with coworkers appropriately to clarify instructions and other issues
- GS3.** GS3. plan and organize the work schedule, work area, tools, equipment, and materials for improved productivity
- GS4.** GS4. plan and prioritize tasks as per work requirements
- GS5.** GS5. always be punctual and courteous
- GS6.** GS6. good observations and intellect mindset

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Apply personal hygiene and follow Good Manufacturing practices at workplace</i>	22	44	-	6
PC1. PC1. follow a site relevant documented procedure for Personal Hygiene and Visitor/ Contractor rules.	2	4	-	-
PC2. 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. PC3. ensure timely participate and carry out the relevant training and awareness sessions on personal hygiene, GMP, and related topics.	2	4	-	-
PC4. 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. PC5. fill in data in the daily monitoring checklist related to personal hygiene, food safety, and GMP.	2	4	-	-
PC6. <ul style="list-style-type: none"> 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. PC7. follow all validated Do's & Don'ts inside a food manufacturing firm.	1	2	-	1
PC8. 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. 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

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. 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. 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. PC12. follow and implement all training and awareness guidelines in the manufacturing area and regularly participate in training effectiveness for evaluation.	1	2	-	-
PC13. PC13. participate in audits and address the aspects of Good Manufacturing Procedures, personal hygiene, and food safety.	1	2	-	-
PC14. 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>	8	16	-	4
PC15. 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. 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 and non-hazardous goods, allergens, cross-contamination risks, Quarantine, Accepted & rejected goods, monitoring temperature and humidity, etc.	1	2	-	1

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC17. 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. PC18. ensure timely check of the critical control points and product parameters.	1	2	-	-
PC19. PC19. record keeping and documentation such as daily monitoring sheets, cleaning sheets, parameters, etc.	1	2	-	1
PC20. PC20. report any food safety and GMP issue to the supervisor, if any.	1	2	-	-
NOS Total	30	60	-	10

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National Occupational Standards (NOS) Parameters

NOS Code	FIC/N9906
NOS Name	Apply food safety guidelines in Food Processing
Sector	Food Processing
Sub-Sector	Generic
Occupation	Generic
NSQF Level	3
Credits	1
Version	1.0
Last Reviewed Date	NA
Next Review Date	23/06/2026
NSQC Clearance Date	23/06/2023

Qualification Pack

DGT/VSQ/N0101: Employability Skills (30 Hours)

Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

Scope

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values - Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

Elements and Performance Criteria

Introduction to Employability Skills

To be competent, the user/individual on the job must be able to:

PC1. understand the significance of employability skills in meeting the job requirements

Constitutional values - Citizenship

To be competent, the user/individual on the job must be able to:

PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices

Becoming a Professional in the 21st Century

To be competent, the user/individual on the job must be able to:

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.

Basic English Skills

To be competent, the user/individual on the job must be able to:

PC4. speak with others using some basic English phrases or sentences

Communication Skills

To be competent, the user/individual on the job must be able to:

PC5. follow good manners while communicating with others

PC6. work with others in a team

Qualification Pack

Diversity & Inclusion

To be competent, the user/individual on the job must be able to:

PC7. communicate and behave appropriately with all genders and PwD

PC8. report any issues related to sexual harassment

Financial and Legal Literacy

To be competent, the user/individual on the job must be able to:

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

Essential Digital Skills

To be competent, the user/individual on the job must be able to:

PC12. operate digital devices and use its features and applications securely and safely

PC13. use internet and social media platforms securely and safely

Entrepreneurship

To be competent, the user/individual on the job must be able to:

PC14. identify and assess opportunities for potential business

PC15. identify sources for arranging money and associated financial and legal challenges

Customer Service

To be competent, the user/individual on the job must be able to:

PC16. identify different types of customers

PC17. identify customer needs and address them appropriately

PC18. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

To be competent, the user/individual on the job must be able to:

PC19. create a basic biodata

PC20. search for suitable jobs and apply

PC21. identify and register apprenticeship opportunities as per requirement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

KU4. Twenty first (21st) century skills and their importance

KU5. how to use basic spoken English language

KU6. Do and dont of effective communication

KU7. inclusivity and its importance

KU8. different types of disabilities and appropriate communication and behaviour towards PwD

KU9. different types of financial products and services

Qualification Pack

- KU10.** how to compute income and expenses
- KU11.** importance of maintaining safety and security in financial transactions
- KU12.** different legal rights and laws
- KU13.** how to operate digital devices and applications safely and securely
- KU14.** ways to identify business opportunities
- KU15.** types of customers and their needs
- KU16.** how to apply for a job and prepare for an interview
- KU17.** apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** communicate effectively using appropriate language
- GS2.** behave politely and appropriately with all
- GS3.** perform basic calculations
- GS4.** solve problems effectively
- GS5.** be careful and attentive at work
- GS6.** use time effectively
- GS7.** maintain hygiene and sanitisation to avoid infection

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<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	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
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	-	-	-	-
NOS Total	20	30	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0101
NOS Name	Employability Skills (30 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	23/06/2023
Next Review Date	23/06/2026
NSQC Clearance Date	23/06/2023

Qualification Pack

FIC/N1039: Produce Millet Based Baked Products

Description

This unit is about baking various millet based baked products such as cookies, muffins, breads etc.

Scope

The scope covers the following :

- Preparation process for production, Shape and mold the dough/batter, Baking process, Post baking activities

Elements and Performance Criteria

Preparation process for production

To be competent, the user/individual on the job must be able to:

- PC1.** dispense all the ingredients sequentially into the mixer manually/mechanize until the appropriate batch size is achieved as per standard organizational procedures.
- PC2.** operate mixer by adjusting speed and time in accordance with organizational standard.
- PC3.** check the consistency/quality of dough/batter during the mixing process and troubleshoot, if required.
- PC4.** place the dough in proofing chamber and adjust the parameters to achieve the desired fermented/proofed dough.
- PC5.** check the fermented/proofed dough quality as per the organisational standards.

Shape and mold the dough/batter

To be competent, the user/individual on the job must be able to:

- PC6.** divide the dough/batter in standard shape and size.
- PC7.** select the molds and place/pour the dough/batter appropriately into the molds to ensure it acquires the desired shape and size
- PC8.** add seasonings and toppings accordingly for its embellishment and flavor enhancement.

Baking Process

To be competent, the user/individual on the job must be able to:

- PC9.** pre-heat the oven and set the oven parameters such as baking time and temperature.
- PC10.** load the filled molds in the oven.
- PC11.** ensure the baking mold and/or loaf tin are transferred correctly to the oven for baking
- PC12.** observe baking through the observation window of the oven.
- PC13.** ensure the prepared products to cool after baking as per defined procedures
- PC14.** remove non-conforming products from the conveyor.
- PC15.** inspect the quality of baked products coming out of the oven for quantitative and qualitative parameters

Post-Baking and packaging of baked products

To be competent, the user/individual on the job must be able to:

Qualification Pack

- PC16.** organize the tools needed for design and decoration.
- PC17.** make slice, size/shape, label and pack the final product as per the organizational procedures
- PC18.** check the quality of the final finished products for its conformance as per the organization's standard.
- PC19.** check for cleanliness and maintenance required for the storage of finished products
- PC20.** attend any minor repairs or faults
- PC21.** clean the work area, machinery, equipment and tools using recommended cleaning agents and sanitizers.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** basic ingredients used in baking millet based products.
- KU2.** the utilisation of formulated recipe for baking millet based baked products.
- KU3.** tools, equipment and materials (such as ingredients, preservatives, flavours, molds, scrapper, tins, spatula, etc.) to be used for producing the desired product.
- KU4.** sequence of operations for producing various types of baked products.
- KU5.** type of dough/batter consistency used in baking various bakery products.
- KU6.** desired quality parameters to be achieved during the entire process
- KU7.** amount of ingredients to be added to produce the final product
- KU8.** understanding how to operate the mixer/or blender, proofer, oven etc.
- KU9.** difference between soft and hard dough.
- KU10.** methods involved in fermentation and proofing.
- KU11.** understanding how to inspect the physical and quality parameters of the dough/batter.
- KU12.** process for topping and embellishment.
- KU13.** after baked changes observed in final baked products in flavour development, colour, etc.
- KU14.** scoring of baked products.
- KU15.** understanding oven profiling, preheating, oven control points, and how to operate the oven for baking.
- KU16.** various risks involved with handling oven, temperature and humidity controls.
- KU17.** cooling process of artisanal baked products.
- KU18.** identification of defects and their timely rectification.
- KU19.** critical control points in the manufacturing of bakery products.
- KU20.** ambient storage conditions and shelf-life for ingredients and related sequencing requirements.
- KU21.** different quality tests performed on baked items.
- KU22.** packaging and wrapping for different types of baked products.
- KU23.** methods to inspect and maintain the quality of baked product during the entire work process.
- KU24.** applicable standards and FSSAI regulations pertaining to the production, storage, packaging and labelling of finished products.

Qualification Pack

- KU25.** dispose of the waste materials safely.
- KU26.** importance of ensuring a tidy workplace.

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** interpret material requirements from customer interactions, production needs, etc. accurately.
- GS2.** read and interpret process flowcharts, manufacturer documents, equipment manuals, etc. effectively.
- GS3.** write in local language/Hindi/English effectively.
- GS4.** communicate with others (such as vendors and customers) effectively.
- GS5.** attentively listen and comprehend the information given by the speaker.
- GS6.** analyse critical points and identify control measures to solve the issue.
- GS7.** plan and prioritise tasks as per work requirements.
- GS8.** address issues promptly and effectively.
- GS9.** apply domain information in the job as required.
- GS10.** manage a team, segregation of work for efficient and effective outcome.

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Preparation process for production</i>	7.5	15	-	-
PC1. dispense all the ingredients sequentially into the mixer manually/mechanize until the appropriate batch size is achieved as per standard organizational procedures.	1	4	-	-
PC2. operate mixer by adjusting speed and time in accordance with organizational standard.	1	3	-	-
PC3. check the consistency/quality of dough/batter during the mixing process and troubleshoot, if required.	2	3	-	-
PC4. place the dough in proofing chamber and adjust the parameters to achieve the desired fermented/proofed dough.	2	2	-	-
PC5. check the fermented/proofed dough quality as per the organisational standards.	1.5	3	-	-
<i>Shape and mold the dough/batter</i>	7.5	15	-	-
PC6. divide the dough/batter in standard shape and size.	3.5	7	-	-
PC7. select the molds and place/pour the dough/batter appropriately into the molds to ensure it acquires the desired shape and size	1.5	3	-	-
PC8. add seasonings and toppings accordingly for its embellishment and flavor enhancement.	2.5	5	-	-
<i>Baking Process</i>	10	17.5	-	-
PC9. pre-heat the oven and set the oven parameters such as baking time and temperature.	2	3	-	-
PC10. load the filled molds in the oven.	1	2	-	-
PC11. ensure the baking mold and/or loaf tin are transferred correctly to the oven for baking	1	2	-	-
PC12. observe baking through the observation window of the oven.	1	2	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. ensure the prepared products to cool after baking as per defined procedures	1	2	-	-
PC14. remove non-conforming products from the conveyor.	2	3	-	-
PC15. inspect the quality of baked products coming out of the oven for quantitative and qualitative parameters	2	3.5	-	-
<i>Post-Baking and packaging of baked products</i>	10	17.5	-	-
PC16. organize the tools needed for design and decoration.	1	2	-	-
PC17. make slice, size/shape, label and pack the final product as per the organizational procedures	2	5	-	-
PC18. check the quality of the final finished products for its conformance as per the organization's standard.	2	3	-	-
PC19. check for cleanliness and maintenance required for the storage of finished products	2	3	-	-
PC20. attend any minor repairs or faults	1	2	-	-
PC21. clean the work area, machinery, equipment and tools using recommended cleaning agents and sanitizers.	2	2.5	-	-
NOS Total	35	65	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N1039
NOS Name	Produce Millet Based Baked Products
Sector	Food Processing
Sub-Sector	Food Grain Milling
Occupation	Processing-Food Grain Milling (including oilseeds)
NSQF Level	3
Credits	2
Version	1.0
Last Reviewed Date	NA
Next Review Date	13/06/2026
NSQF Clearance Date	13/06/2023

Qualification Pack

FIC/N1040: Produce Instant Idli and Dosa Mix

Description

This unit focuses on the production of instant idli/dosa mix from various millets.

Scope

The scope covers the following :

- to produce instant idli/dosa mix from various millets, to pack instant foods in appropriate packaging material, to perform Post-Production activities

Elements and Performance Criteria

Production process of various ready to cook products

To be competent, the user/individual on the job must be able to:

- PC1.** clean and wash the legumes and millets.
- PC2.** soak the millet and legume in water according to the standard protocol
- PC3.** turn on the mixer and mix thoroughly millet and legume and add salt to the batter.
- PC4.** empty the mixer and transfer the batter in a separate container for fermentation
- PC5.** preset the fermentation conditions such as temperature, time and humidity to ferment the batter
- PC6.** spread the fermented batter into a clean tray and leave it in a tray dryer at an appropriate temperature for a certain time period
- PC7.** grind the fully dried batter to coarse powder in a grinder.
- PC8.** sieve the mixture to obtain a fine and uniform particle size powder
- PC9.** take a sample and check for its desired quality characteristics as per standard procedures
- PC10.** dispose off the non-conforming batch safely.

Packaging and post-production activities

To be competent, the user/individual on the job must be able to:

- PC11.** ensure that the powder is packaged in an appropriate packaging
- PC12.** ensure proper labelling is done on the packaging material as per standard operating practices
- PC13.** send samples to the quality lab for analysis of physical, chemical, and microbiological parameters
- PC14.** transfer the packed and labelled finished products to the storage room in accordance with standard organisational procedure for dispatch
- PC15.** clean the work space, tools, and equipment after use.
- PC16.** attend any minor repairs or issues
- PC17.** ensure that all machines and equipment are regularly maintained (daily, weekly, monthly, quarterly, half-yearly, and annually) in accordance with SOP or supplier instructions or manuals.

Qualification Pack

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** types of millet and legumes used.
- KU2.** organization's standardized recipe
- KU3.** role of the components utilized in product making.
- KU4.** the type of mixer, sift, and dryer that were employed to produce the right product.
- KU5.** the fermentation process.
- KU6.** the organisation or the manufacturer's standard operating procedure for machine cleanliness and general maintenance.
- KU7.** desired quality parameters of the product to be monitored for.
- KU8.** the cleaning procedure for raw materials
- KU9.** process of waste disposal.
- KU10.** process for analysing a work order and a flowchart.
- KU11.** instructions for using the blender and tray dryer.
- KU12.** SOP for making a quick idli/dosa mix.
- KU13.** type of packaging material used.
- KU14.** requirement of packaging and labelling as per FSSAI guidelines.
- KU15.** significance of sending samples for quality analysis
- KU16.** general maintenance of food production machineries

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** read and interpret organizational policies, SOP, production charts, etc.
- GS2.** note down the information communicated by the senior/supervisor
- GS3.** communicate effectively with subordinates as well as supervisors
- GS4.** be always punctual and courteous
- GS5.** organize all process/equipment manuals to access information easily
- GS6.** discuss task lists, schedules, and activities with the senior/supervisor
- GS7.** read internal information documents sent by internal teams
- GS8.** plan, prioritize, and sequence work operations

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Production process of various ready to cook products</i>	20	35	-	-
PC1. clean and wash the legumes and millets.	2	4	-	-
PC2. soak the millet and legume in water according to the standard protocol	2	4	-	-
PC3. turn on the mixer and mix thoroughly millet and legume and add salt to the batter.	2	3	-	-
PC4. empty the mixer and transfer the batter in a separate container for fermentation	2	2	-	-
PC5. preset the fermentation conditions such as temperature, time and humidity to ferment the batter	2	4	-	-
PC6. spread the fermented batter into a clean tray and leave it in a tray dryer at an appropriate temperature for a certain time period	2	4	-	-
PC7. grind the fully dried batter to coarse powder in a grinder.	2	4	-	-
PC8. sieve the mixture to obtain a fine and uniform particle size powder	2	4	-	-
PC9. take a sample and check for its desired quality characteristics as per standard procedures	2	4	-	-
PC10. dispose off the non-conforming batch safely.	2	2	-	-
<i>Packaging and post-production activities</i>	15	30	-	-
PC11. ensure that the powder is packaged in an appropriate packaging	2	3	-	-
PC12. ensure proper labelling is done on the packaging material as per standard operating practices	3	5	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. send samples to the quality lab for analysis of physical, chemical, and microbiological parameters	2	4	-	-
PC14. transfer the packed and labelled finished products to the storage room in accordance with standard organisational procedure for dispatch	3	5	-	-
PC15. clean the work space, tools, and equipment after use.	2	5	-	-
PC16. attend any minor repairs or issues	1	3	-	-
PC17. ensure that all machines and equipment are regularly maintained (daily, weekly, monthly, quarterly, half-yearly, and annually) in accordance with SOP or supplier instructions or manuals.	2	5	-	-
NOS Total	35	65	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N1040
NOS Name	Produce Instant Idli and Dosa Mix
Sector	Food Processing
Sub-Sector	Food Grain Milling
Occupation	Processing-Food Grain Milling (including oilseeds)
NSQF Level	3
Credits	2
Version	1.0
Last Reviewed Date	NA
Next Review Date	13/06/2026
NSQC Clearance Date	13/06/2023

Qualification Pack

FIC/N1041: Produce Millet Based Extruded Products

Description

This NOS unit is about producing various millet-based extruded products as per organizational standards.

Scope

The scope covers the following :

- Prepare extruder to produce extruded products, Produce millet-based extruded products of different shapes and sizes, Carry out post-production cleaning and regular maintenance of equipment

Elements and Performance Criteria

Prepare extruder to produce extruded products:

To be competent, the user/individual on the job must be able to:

- PC1.** check if all parts of the extruder are clean, all bolts are tightened, die is not blocked.
- PC2.** select, assemble, and fix the screws in the extruder.
- PC3.** clean and install dies of required shape and disc following the work order of the organization
- PC4.** assemble and attach the blade to shear off extruded products coming out of the extruder.
- PC5.** attach the cutter motor to the head section.
- PC6.** select and fit machine components and related attachments to meet production requirements.

Produce extruded products of different shapes and sizes

To be competent, the user/individual on the job must be able to:

- PC7.** follow the process parameter chart for the product to be produced
- PC8.** set processing and operating parameters of the extruder such as temperature, pressure, RPM, feed rate, screw speed, etc in the control panel following standard operating procedure (SOP).
- PC9.** operate extruder and feed raw material in the required quantity to produce extruded products.
- PC10.** change the die as per different size perforations and different shapes required for pasta, noodle, puffs, etc.
- PC11.** monitor dials and gauges for temperature, pressure, etc as the product begins to pass out of the extruder and ensure process parameters are maintained, and adjust settings as required.
- PC12.** check the quality and quantity of product coming out through the extruder die and adjust the setting to achieve a product of the required specifications.
- PC13.** follow emergency shutdown procedure in case of any problem, locate and replace the faulty component and assemble and resume normal start-up procedures.
- PC14.** ensure all material has exited the die and stop the extruder.
- PC15.** check the quality and quantity of finished products to ensure their specifications are as per organizational standards.

Qualification Pack

- PC16.** load packaging materials and labels in the packaging machine, set packing quantity and labelling details, start the machine to pack finished products.
- PC17.** pack the finished products as per SOP, take a sample, and transfer them to the quality lab for analysis.
- PC18.** place packed and labelled products in cartons and transfer them to the storage area and maintain storage conditions following SOP.
- PC19.** report discrepancies/concerns to the department supervisor for immediate action and implement the suggested corrective action.

Carry out post-production cleaning and regular maintenance of equipment

To be competent, the user/individual on the job must be able to:

- PC20.** clean the work area, equipment, and tools using recommended cleaning agents and sanitizers.
- PC21.** attend minor repairs/faults (if any) of all components and machines.
- PC22.** ensure periodic (daily/weekly/monthly/quarterly/half-yearly/annual) maintenance of all machines and equipment following the SOP or following suppliers' instructions/manuals.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organization, process standards, and procedures followed in the organization
- KU2.** types of products produced by the organization
- KU3.** personal Protective Equipment is to be worn as required during the work process
- KU4.** job responsibilities/duties and standard operating procedures relevant to the production process
- KU5.** internal processes like procurement, store management, quality management, and key contact points for query resolution.
- KU6.** role of dies in producing various extruded products.
- KU7.** types of millet flour used for the production of millet-based extruded products.
- KU8.** production process and process parameters for the millet-based extruded products.
- KU9.** types of machinery used in processing as per the standard of the organization.
- KU10.** operating and handling processing machinery, maintenance of types of machinery, equipment, and tools.
- KU11.** principles of the extrusion process.
- KU12.** types of extruders used in the organization and components of the extruder and its importance.
- KU13.** operating and maintenance of various types of extruders.
- KU14.** basic mathematics.
- KU15.** quality parameters and quality assessment based on physical parameters.
- KU16.** procedure for disposal of waste.
- KU17.** types of packaging materials and packaging machinery.
- KU18.** storage procedures for raw materials and finished product
- KU19.** food safety and hygiene standards followed.



Qualification Pack

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** note down the information communicated by the senior/supervisor such as raw materials used for production, finished products to be produced, process parameters, observations (if any) related to the process, and data for online ERP or as per applicability in the organization
- GS2.** read and interpret the organizational process, process flowchart, equipment manuals, process documents, and information documents sent by internal teams
- GS3.** communicate effectively with team members and supervisors
- GS4.** Structure and classify various tasks in accordance with standards.
- GS5.** Strategy to make efficient use of both time and resources.

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare extruder to produce extruded products:</i>	7.5	15	-	-
PC1. check if all parts of the extruder are clean, all bolts are tightened, die is not blocked.	1	2	-	-
PC2. select, assemble, and fix the screws in the extruder.	1	3	-	-
PC3. clean and install dies of required shape and disc following the work order of the organization	1.5	2	-	-
PC4. assemble and attach the blade to shear off extruded products coming out of the extruder.	2	2	-	-
PC5. attach the cutter motor to the head section.	1	3	-	-
PC6. select and fit machine components and related attachments to meet production requirements.	1	3	-	-
<i>Produce extruded products of different shapes and sizes</i>	15.5	35	-	-
PC7. follow the process parameter chart for the product to be produced	1	2	-	-
PC8. set processing and operating parameters of the extruder such as temperature, pressure, RPM, feed rate, screw speed, etc in the control panel following standard operating procedure (SOP).	1.5	4	-	-
PC9. operate extruder and feed raw material in the required quantity to produce extruded products.	2	4	-	-
PC10. change the die as per different size perforations and different shapes required for pasta, noodle, puffs, etc.	1	3	-	-
PC11. monitor dials and gauges for temperature, pressure, etc as the product begins to pass out of the extruder and ensure process parameters are maintained, and adjust settings as required.	1	3	-	-
PC12. check the quality and quantity of product coming out through the extruder die and adjust the setting to achieve a product of the required specifications.	1	3	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. follow emergency shutdown procedure in case of any problem, locate and replace the faulty component and assemble and resume normal start-up procedures.	1	2	-	-
PC14. ensure all material has exited the die and stop the extruder.	1	3	-	-
PC15. check the quality and quantity of finished products to ensure their specifications are as per organizational standards.	2	3	-	-
PC16. load packaging materials and labels in the packaging machine, set packing quantity and labelling details, start the machine to pack finished products.	1	2	-	-
PC17. pack the finished products as per SOP, take a sample, and transfer them to the quality lab for analysis.	1	2	-	-
PC18. place packed and labelled products in cartons and transfer them to the storage area and maintain storage conditions following SOP.	1	2	-	-
PC19. report discrepancies/concerns to the department supervisor for immediate action and implement the suggested corrective action.	1	2	-	-
<i>Carry out post-production cleaning and regular maintenance of equipment</i>	12	15	-	-
PC20. clean the work area, equipment, and tools using recommended cleaning agents and sanitizers.	3	4	-	-
PC21. attend minor repairs/faults (if any) of all components and machines.	3	4	-	-
PC22. ensure periodic (daily/weekly/monthly/quarterly/half-yearly/annual) maintenance of all machines and equipment following the SOP or following suppliers' instructions/manuals.	6	7	-	-
NOS Total	35	65	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N1041
NOS Name	Produce Millet Based Extruded Products
Sector	Food Processing
Sub-Sector	Food Grain Milling
Occupation	Processing-Food Grain Milling (including oilseeds)
NSQF Level	3
Credits	2
Version	1.0
Last Reviewed Date	NA
Next Review Date	13/06/2026
NSQC Clearance Date	13/06/2023

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down the proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on the knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for the theory part for each candidate at each examination/training centre (as per the assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practicals for every student at each examination/training centre based on this criterion.
6. To pass the Qualification Pack, every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.

Qualification Pack

7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Minimum Aggregate Passing % at QP Level : 70

(**Please note:** Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
FIC/N1038.Produce Millet Based Composite Flour	35	65	0	0	100	30
FIC/N9026.Prepare for production	30	70	-	-	100	20
FIC/N9906.Apply food safety guidelines in Food Processing	30	60	0	10	100	10
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	-	-	50	10
Total	115	225	0	0	350	70

Elective: 1 Produce Millet Based Baked Products

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
FIC/N1039.Produce Millet Based Baked Products	35	65	0	0	100	30
Total	35	65	0	0	100	30

Elective: 2 Produce Instant Idli and Dosa Mix

Qualification Pack

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
FIC/N1040.Produce Instant Idli and Dosa Mix	35	65	0	0	100	30
Total	35	65	0	0	100	30

Elective: 3 Produce Millet Based Extruded Products

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
FIC/N1041.Produce Millet Based Extruded Products	35	65	0	0	100	30
Total	35	65	0	0	100	30

Qualification Pack

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
NOS	National Occupational Standard(s)
NSQF	National Skill Qualification Framework
QP	Qualification Pack
TVET	Technical and Vocational Education and Training
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 Qualification Framework
OJT	On the job training
SOP	Standard Operating Procedures
FSSAI	Food Safety and Standards Authority of India
NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualification Pack
TVET	Technical and Vocational Education and Training
MLF	Malolactic Fermentation
TA	Titrateable Acid

Qualification Pack

pH	Power of Hydrogen
FSSAI	Food Safety and Standards Authority of India
GMPs	Good Manufacturing Practices
HACCP	Hazard Analysis Critical Control Point
VACCP	Vulnerability Assessment Critical Control Points
TACCP	Threat Assessment Critical Control Points
RCA	Root Cause Analysis
CAPA	Corrective Action Preventive Action
PPE	Personal Protective Equipment
CPR	Cardio-Pulmonary Resuscitation
GHP	Good Hygiene Practices
SOPs	Standard Operating Procedures
PwD	People with Disabilities
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
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Qualification Pack

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Qualification Pack

Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.
Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.

Qualification Pack

Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.
National Occupational Standard	NOS defines 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 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 about 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.
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Qualification Pack

Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization
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