



Traditional Sweet and Savoury Product Maker

QP Code:

Version: 1.0

NSQF Level: 3

Food Industry Capacity & Skill Initiative || Shriram Bharatiya Kala kendra, 3rd floor, 1, Copernicus Marg, Mandi House, New Delhi
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Brief Job Description

A Traditional Sweet and Savoury Product Maker is responsible for making various types of sweet and savoury snack products. The individual is responsible for using their skills to carry out day to day activities in preparing variety of food items while meeting defined SOPs.

Personal Attributes

A Traditional Sweets and Savoury Product Maker must have the ability to plan, organize, prioritize, calculate and handle pressure. The individual must possess reading, writing, communication skills, organizational & analytical skills, as well as trouble shooting skills. In addition, the individual must maintain physical stamina and personal hygiene.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [FIC/N9026: Prepare for production](#)
2. [FIC/N8516: Carry out production of sweet and savoury products](#)
3. [FIC/N9901: Implement health and safety practices at the workplace](#)
4. [FIC/N9902: Work effectively in an organisation](#)
5. [SGJ/N1702: Optimize resource utilization at workplace](#)

Qualification Pack (QP) Parameters

Sector	Food Processing
Sub-Sector	Packaged Foods
Occupation	
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/NIL

Minimum Educational Qualification & Experience	10th Class OR 8th Class with 2 Years of experience relevant experience OR Certificate-NSQF (Level 3 qualification certificate of food processing sector) with 2 Years of experience OR Ability to read and write with 5 Years of experience relevant experience
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	16 Years
Last Reviewed On	NA
Next Review Date	NA
NSQC Approval Date	
Version	1.0

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)

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

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	-	-

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	-	-

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	24/02/2024
NSQC Clearance Date	24/02/2022

FIC/N8516: Carry out production of sweet and savoury products

Description

A Traditional Sweet and Savoury Product Maker is responsible for making various types of sweet and savoury snack products. The individual is responsible for using their skills to carry out day to day activities in preparing variety of food items while meeting defined SOPs.

Scope

The scope covers the following :

- Processing of evaporated milk (khoya)
- Processing of Sugar Syrup
- Processing of sweet products
- Processing of Savoury Products
- Canning of Products
- Packaging and Labelling of the products
- Post production cleaning and regular maintenance of equipment

Elements and Performance Criteria

Processing of evaporated milk (khoya)

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

- PC1.** fill measured volume of milk into container/steam jacketed kettle/silos/evaporator
- PC2.** set controls of steam jacketed kettle/silos/evaporator to stir milk until moisture evaporates upto desired moisture level; controls: temperature, pressure, agitator speed, time etc.
- PC3.** check the consistency of evaporated milk (khoya)and continue stirring till a concentration of 50% of total solids is attained
- PC4.** transfer khoya into container to storage room and ensure desired temperature is maintained till further processing between stones/plates to achieve required fineness, collect the milled material (flour/powder) from the discharge outlet

Processing of Sugar Syrup

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

- PC5.** measure the amount of sugar and water required
- PC6.** transfer measured quantity of mixture into steam jacketed kettle/silos
- PC7.**
 - controls the parameters of the steam jacketed kettle
 - parameters: speed, temperature pressure, time etc.
- PC8.** check the soluble sugar content with refractometer after the syrup is formed as per the composition required
- PC9.** ensure the transfer of sugar syrup at optimum temperature to avoid crystallisation for further processing

Processing of sweet products

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

- PC10.** clean, sort and grind the available raw material; Raw materials: besan flour, cashew/almond batter, maida, ghee/oil, nuts etc.

- PC11.** transfer the prepared material (khoya) and other raw materials (maida) into the container for kneading it manually or in a kneader and set the speed of the stirrer to mix the ingredients evenly
- PC12.** mix the ground ingredients with the kneaded raw material
- PC13.** load dough in feed hopper of continuous snack making machine/extruder and adjust controls to set speed of the conveyors, dough cutter to cut dough into specified weight
- PC14.** cut the product as per the desired shape and size or transfer the material into a moulder prior to cutting
- PC15.** transfer measured quantity of oil into the fryer and set controls of fryer such as temperature and level of oil etc.
- PC16.** add shaped balls into heated oil to fry, stir continuously and ensure not to under fry or over fry
- PC17.** follow company norms for reusing/discard the excess oil/used oil respectively
- PC18.** check the desired parameters of the product parameters: appearance, texture, taste, oil absorbing capacity, etc.
- PC19.** add the products into the cooking vat containing sugar syrup
- PC20.** • ensure cooking meets the required consistency and check the physical parameters of the product
 • Parameters: colour, texture, sweetness, soaking capacity, etc.
- PC21.** transfer product into cooling station
- PC22.** set the parameters of the cooling station to cool the products
- PC23.** pack the sample product using appropriate packaging material and transfer to lab for quality analysis

Processing of Savoury Products

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

- PC24.** • measure specified quantity of raw materials and ingredients
 • Raw materials: flour, salt, spice powder, etc.
- PC25.** set the speed of the dough mixer and feed the dough with ground ingredients to mix uniformly
- PC26.** • transfer the mixture in the hopper of sheeting machine and set the parameters
 • Parameters: speed, temperature, time, etc
- PC27.** • set the parameters of the extruder and transfer the raw material into the extruder
 • Parameters: temperature, pressure, RPM, etc.
- PC28.** • collect the extruded products from the extruder and perform further processing depending on the product requirement
 • Requirement: frying, baking, etc Requirement: frying, baking, etc.
- PC29.** add sliced vegetable/extruded or shaped dough into the oil and maintain the temperature as per the product requirement during frying
- PC30.** transfer weighed product into the drum of blender machine to blend with desired amount of seasonings
- PC31.** check for presence of metallic substances in the products using organisational practices
- PC32.** • check the physical parameters of the product for any variation
 • Physical parameters: dimension, appearance, texture, taste, etc.
- PC33.** take samples as per specified amounts and handover to quality lab for testing

Canning of Products

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

PC34. feed flattened cans into can forming machine and operate machine to form cans

PC35. set the parameters of filling machine Parameters: weight and volume

PC36. feed product and sugar syrup in the filling machine

PC37. operate seaming machine to expel air during retorting and seal filled cans

PC38. • set the parameters of retort machine to sterilize the canned products
 • Parameters: pressure, time, temperature, etc.

PC39. prepare the cooling tunnel to cool the cans

PC40. • set control parameters of the drying tunnel to dry the cooled cans
 • Parameters: temperature, air flow and conveyor speed

PC41. store the products maintaining storage conditions following SOP

Packaging and Labelling of the products

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

PC42. load the desired packaging material on the machine appropriately

PC43. load the products on the packaging conveyor ensuring product safety

PC44. start the packaging machine safely and control the output of wrapped and labelled products as per the specifications

PC45. monitor the process to ascertain suitable packaging for the production

PC46. • record information (manual, ERP, etc.) of finished products details as per FSSAI regulations
 • Details: Name of the product, batch number, time of packing, date of manufacture, date of expiry, other label details, primary and secondary packaging materials for all finished products, storage conditions etc.

PC47. report information such as non-compliant product to the supervisor promptly as per organisational practices

PC48. • document and maintain record on production, process details and the types of finished products produced
 • Production records: raw material used, products produced, production sequence, defects observed, equipment and machinery details, efficiency and capacity utilization of equipment

PC49. verify documents and track from finished product to ingredients, in case of quality concerns and for quality management system audits

Post production cleaning and regular maintenance of equipment

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

PC50. clean work area, machinery, equipment and tools using recommended cleaning agents and sanitizers

PC51. inspect the tools, equipment and machinery periodically to identify defects and ensure their upkeep and maintenance

PC52. report equipment faults to the concerned department/supervisor as per organisational practice

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. organization standards, process standards and procedures followed in the organization

KU2. types of raw materials required to produce different products in the organization

KU3. process and procedures for production of various products

- KU4.** job responsibilities/duties of a traditional sweets and savoury product maker
- KU5.** internal processes like procurement, store management, inventory management, quality management and key contact points for query resolution
- KU6.** technique to use different equipment in snacks industry
- KU7.** food safety and hygiene standards laid down by the organization during preparation
- KU8.** the temperature at which oil needs to be sprayed and the quantity of same
- KU9.** the particle size of the seasoning being sprinkled on the product
- KU10.** the quantity of seasonings being sprinkled
- KU11.** importance of maintaining uniform size of the raw materials
- KU12.** methods of handling all types of raw materials
- KU13.** importance of production process, process parameters and flow chart as per recipe formulation
- KU14.** temperature requirement for different products
- KU15.** types of equipment used in the processing of sweets and savoury products in the organisation
- KU16.** working of different types of processing equipment
- KU17.** desired areas to keep tools and equipment used in
- KU18.** basic tests required in checking physical parameters
- KU19.** types and categories of packaging materials and types of packaging machineries
- KU20.** storage procedures for raw materials, packaging materials and finished goods
- KU21.** cleaning procedures like CIP and COP
- KU22.** different cleaning agents required in the processing area
- KU23.** FSSAI regulations for handling additives as well as for packaging and labelling
- KU24.** importance of proper packaging of products
- KU25.** information to be recorded in a proper manner
- KU26.** different process parameters required for different products

Generic Skills (GS)

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

- GS1.** note the information communicated
- GS2.** record all the raw materials, sources and suppliers of raw materials and packaging materials, time and date of receiving and the quantity received
- GS3.** note the readings of the process parameters like weight, number of pieces, grades, varieties, temperature, timing, pH level etc and provide necessary information to fill the process chart
- GS4.** note down observations (if any) related to the process
- GS5.** write information documents to internal departments/ internal teams
- GS6.** note down the data for online ERP or as per applicability in the organization
- GS7.** read and interpret the process required for producing various types of products
- GS8.** read and interpret and process flowchart for all products produced
- GS9.** read equipment manuals and process documents to understand the equipments operation and process requirement

- GS10.** read internal information documents sent by internal teams
- GS11.** discuss task lists, schedules and activities with team mates and clear the queries from the supervisors
- GS12.** effectively communicate with team members
- GS13.** attentively listen and comprehend the information given by the speaker
- GS14.** analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue
- GS15.** handle issues in the absence of supervisor
- GS16.** organize raw materials and packaging materials required for all products
- GS17.** plan and prioritize the work based on the instructions received
- GS18.** plan to utilise time and equipment's effectively
- GS19.** organize all process/ equipment manuals so as to access information easily
- GS20.** support the manager in scheduling tasks for helpers
- GS21.** understand customer requirements and their priority and respond as per their needs
- GS22.** apply domain information about maintenance processes
- GS23.** use reasoning skills to identify and resolve basic problems
- GS24.** use acquired knowledge and training of the process for identifying and handling issues

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Processing of evaporated milk (khoya)</i>	2	4	-	-
PC1. fill measured volume of milk into container/steam jacketed kettle/silos/evaporator	-	-	-	-
PC2. set controls of steam jacketed kettle/silos/evaporator to stir milk until moisture evaporates upto desired moisture level; controls: temperature, pressure, agitator speed, time etc.	-	-	-	-
PC3. check the consistency of evaporated milk (khoya)and continue stirring till a concentration of 50% of total solids is attained	-	-	-	-
PC4. transfer khoya into container to storage room and ensure desired temperature is maintained till further processing between stones/plates to achieve required fineness, collect the milled material (flour/powder) from the discharge outlet	-	-	-	-
<i>Processing of Sugar Syrup</i>	3	5	-	-
PC5. measure the amount of sugar and water required	-	-	-	-
PC6. transfer measured quantity of mixture into steam jacketed kettle/silos	-	-	-	-
PC7. • controls the parameters of the steam jacketed kettle • parameters: speed, temperature pressure, time etc.	-	-	-	-
PC8. check the soluble sugar content with refractometer after the syrup is formed as per the composition required	-	-	-	-
PC9. ensure the transfer of sugar syrup at optimum temperature to avoid crystallisation for further processing	-	-	-	-
<i>Processing of sweet products</i>	7	26	-	-
PC10. clean, sort and grind the available raw material; Raw materials: besan flour, cashew/almond batter, maida, ghee/oil, nuts etc.	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. transfer the prepared material (khoya) and other raw materials (maida) into the container for kneading it manually or in a kneader and set the speed of the stirrer to mix the ingredients evenly	-	-	-	-
PC12. mix the ground ingredients with the kneaded raw material	-	-	-	-
PC13. load dough in feed hopper of continuous snack making machine/extruder and adjust controls to set speed of the conveyors, dough cutter to cut dough into specified weight	-	-	-	-
PC14. cut the product as per the desired shape and size or transfer the material into a moulder prior to cutting	-	-	-	-
PC15. transfer measured quantity of oil into the fryer and set controls of fryer such as temperature and level of oil etc.	-	-	-	-
PC16. add shaped balls into heated oil to fry, stir continuously and ensure not to under fry or over fry	-	-	-	-
PC17. follow company norms for reusing/discard the excess oil/used oil respectively	-	-	-	-
PC18. check the desired parameters of the product parameters: appearance, texture, taste, oil absorbing capacity, etc.	-	-	-	-
PC19. add the products into the cooking vat containing sugar syrup	-	-	-	-
PC20. <ul style="list-style-type: none"> • ensure cooking meets the required consistency and check the physical parameters of the product • Parameters: colour, texture, sweetness, soaking capacity, etc. 	-	-	-	-
PC21. transfer product into cooling station	-	-	-	-
PC22. set the parameters of the cooling station to cool the products	-	-	-	-
PC23. pack the sample product using appropriate packaging material and transfer to lab for quality analysis	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Processing of Savoury Products</i>	5	14	-	-
PC24. <ul style="list-style-type: none"> measure specified quantity of raw materials and ingredients Raw materials: flour, salt, spice powder, etc. 	-	-	-	-
PC25. set the speed of the dough mixer and feed the dough with ground ingredients to mix uniformly	-	-	-	-
PC26. <ul style="list-style-type: none"> transfer the mixture in the hopper of sheeting machine and set the parameters Parameters: speed, temperature, time, etc 	-	-	-	-
PC27. <ul style="list-style-type: none"> set the parameters of the extruder and transfer the raw material into the extruder Parameters: temperature, pressure, RPM, etc. 	-	-	-	-
PC28. <ul style="list-style-type: none"> collect the extruded products from the extruder and perform further processing depending on the product requirement Requirement: frying, baking, etc Requirement: frying, baking, etc. 	-	-	-	-
PC29. add sliced vegetable/extruded or shaped dough into the oil and maintain the temperature as per the product requirement during frying	-	-	-	-
PC30. transfer weighed product into the drum of blender machine to blend with desired amount of seasonings	-	-	-	-
PC31. check for presence of metallic substances in the products using organisational practices	-	-	-	-
PC32. <ul style="list-style-type: none"> check the physical parameters of the product for any variation Physical parameters: dimension, appearance, texture, taste, etc. 	-	-	-	-
PC33. take samples as per specified amounts and handover to quality lab for testing	-	-	-	-
<i>Canning of Products</i>	4	9	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC34. feed flattened cans into can forming machine and operate machine to form cans	-	-	-	-
PC35. set the parameters of filling machine Parameters: weight and volume	-	-	-	-
PC36. feed product and sugar syrup in the filling machine	-	-	-	-
PC37. operate seaming machine to expel air during retorting and seal filled cans	-	-	-	-
PC38. <ul style="list-style-type: none"> • set the parameters of retort machine to sterilize the canned products • Parameters: pressure, time, temperature, etc. 	-	-	-	-
PC39. prepare the cooling tunnel to cool the cans	-	-	-	-
PC40. <ul style="list-style-type: none"> • set control parameters of the drying tunnel to dry the cooled cans • Parameters: temperature, air flow and conveyor speed 	-	-	-	-
PC41. store the products maintaining storage conditions following SOP	-	-	-	-
<i>Packaging and Labelling of the products</i>	7	9	-	-
PC42. load the desired packaging material on the machine appropriately	-	-	-	-
PC43. load the products on the packaging conveyor ensuring product safety	-	-	-	-
PC44. start the packaging machine safely and control the output of wrapped and labelled products as per the specifications	-	-	-	-
PC45. monitor the process to ascertain suitable packaging for the production	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC46. <ul style="list-style-type: none"> record information (manual, ERP, etc.) of finished products details as per FSSAI regulations Details: Name of the product, batch number, time of packing, date of manufacture, date of expiry, other label details, primary and secondary packaging materials for all finished products, storage conditions etc. 	-	-	-	-
PC47. report information such as non-compliant product to the supervisor promptly as per organisational practices	-	-	-	-
PC48. <ul style="list-style-type: none"> document and maintain record on production, process details and the types of finished products produced Production records: raw material used, products produced, production sequence, defects observed, equipment and machinery details, efficiency and capacity utilization of equipment 	-	-	-	-
PC49. verify documents and track from finished product to ingredients, in case of quality concerns and for quality management system audits	-	-	-	-
<i>Post production cleaning and regular maintenance of equipment</i>	2	3	-	-
PC50. clean work area, machinery, equipment and tools using recommended cleaning agents and sanitizers	-	-	-	-
PC51. inspect the tools, equipment and machinery periodically to identify defects and ensure their upkeep and maintenance	-	-	-	-
PC52. report equipment faults to the concerned department/supervisor as per organisational practice	-	-	-	-
NOS Total	30	70	-	-

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N8516
NOS Name	Carry out production of sweet and savoury products
Sector	Food Processing
Sub-Sector	Packaged Foods
Occupation	Processing-Packaged Foods
NSQF Level	3
Credits	TBD
Version	1.0
Next Review Date	NA

FIC/N9901: Implement health and safety practices at the workplace

Description

This unit is about following health and safety procedures at the workplace.

Scope

The scope covers the following :

- Ensure food safety and personal hygiene
- Follow safety measures to avoid accidents
- Follow emergency procedures
- Manage infection control

Elements and Performance Criteria

Ensure food safety and personal hygiene

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

- PC1.** follow relevant practices to avoid cross contamination at all stages of food processing operations
- PC2.** follow organisational procedures for handling items that may cause allergic reactions
- PC3.** follow Good Manufacturing Practices (GMP) at the workplace. Good Manufacturing Practices: location and layout (ergonomics), cleaning and sanitation, equipment and containers, pest control, facilities (lighting, water supply, drainage and waste disposal, air quality and ventilation), food storage, transportation, and distribution (Source: Schedule IV, FSSAI Licensing and Registration, 2011)
- PC4.** follow Good Hygiene Practices (GHP) at the workplace appropriately. Good Hygiene Practices: use of gloves, hairnets, masks, ear plugs, goggles, shoes etc; washing hands regularly; treating injuries such as cuts, boils, skin infections and grazes; preventive health check-ups ; getting vaccinated whenever required. (Source: Schedule IV, FSSAI Licensing and Registration, 2011)

Follow safety measures to avoid accidents

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

- PC5.** use protective clothing/equipment for specific tasks and work conditions
- PC6.** identify job-site hazardous work and possible causes of risk or accident at the workplace
- PC7.** deal with hazards safely and appropriately to ensure safety of self and others as per organisational protocol
- PC8.** use various types of fire extinguishers effectively
- PC9.** respond promptly and appropriately to an accident situation or medical emergency
- PC10.** provide cardio-pulmonary resuscitation (CPR) as per the requirement (e.g. cardiac arrest)

Follow emergency procedures

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

- PC11.** follow workplace emergency and evacuation procedures
- PC12.** use safe methods to free a person from electrocution

PC13. administer appropriate first aid to victims in case of cuts, bleeding, burns, choking, electric shock, poisoning etc.

Manage infection control

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

PC14. use appropriate disinfectants to disinfect the work area and equipment as per organisational protocol

PC15. ensure personal hygiene by washing hands regularly using alcohol based sanitisers and wearing personal protective equipment (PPE)

PC16. report illness of self and others to the supervisor or concerned authority

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. meaning of hazards and risks

KU2. possible causes of risk, hazard or accident in the workplace

KU3. where to find all the general health and safety equipment in the workplace

KU4. health and safety policy and procedures of the organization

KU5. health and safety hazards commonly present in the work environment

KU6. work practices and precautions used to control and prevent risks, hazards and accidents

KU7. applicable standards and regulations as listed in The Food Safety and Standards Act, 2006

KU8. importance of each personal protective equipment used such as eye protection, hard hats, gloves apron, rubber boots, etc.

KU9. importance of ensuring personal hygiene at the workplace

KU10. ways to prevent cross contamination at the workplace

KU11. importance of storing food at specified temperatures

KU12. various dangers associated with the use of electrical and other equipment

KU13. preventive and remedial actions to be taken in the case of exposure to toxic materials

KU14. various causes of fire and the ways to prevent them

KU15. techniques of using the different fire extinguishers

KU16. procedure followed for providing cardio-pulmonary resuscitation (CPR) to the affected

KU17. rescue techniques applied during a fire hazard

KU18. various types of safety signs and what they mean

KU19. workplace emergency and evacuation procedures

KU20. appropriate basic first aid treatment relevant to the condition e.g. shock, electrical shock, bleeding, breaks to bones, minor burns, resuscitation, poisoning, eye injuries

KU21. potential injuries and ill health conditions associated with incorrect manual handling

KU22. safe lifting and carrying practices

KU23. safe practices to be followed for ensuring sanitisation of self and work area

KU24. procedure for storing the sanitising materials appropriately

Generic Skills (GS)

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

- GS1.** write an accident/incident report in local language or English
- GS2.** read and comprehend basic content to read labels, charts, signages, symbols and product manuals
- GS3.** communicate with coworkers appropriately in order to clarify instructions and other issues
- GS4.** make appropriate decisions pertaining to the concerned area of work regarding the work objective, span of authority, responsibility, laid down procedure and guidelines
- GS5.** plan and organize the work schedule, work area, tools, equipment and materials for improved productivity
- GS6.** identify probable solutions to the problems in hand and evaluate them
- GS7.** seek official and authorised sources of help and guidance to resolve problems that cannot be solved at one's level of authority

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Ensure food safety and personal hygiene</i>	7	19	-	-
PC1. follow relevant practices to avoid cross contamination at all stages of food processing operations	1	4	-	-
PC2. follow organisational procedures for handling items that may cause allergic reactions	1	4	-	-
PC3. follow Good Manufacturing Practices (GMP) at the workplace. Good Manufacturing Practices: location and layout (ergonomics), cleaning and sanitation, equipment and containers, pest control, facilities (lighting, water supply, drainage and waste disposal, air quality and ventilation), food storage, transportation, and distribution (Source: Schedule IV, FSSAI Licensing and Registration, 2011)	3	7	-	-
PC4. follow Good Hygiene Practices (GHP) at the workplace appropriately. Good Hygiene Practices: use of gloves, hairnets, masks, ear plugs, goggles, shoes etc; washing hands regularly; treating injuries such as cuts, boils, skin infections and grazes; preventive health check-ups ; getting vaccinated whenever required. (Source: Schedule IV, FSSAI Licensing and Registration, 2011)	2	4	-	-
<i>Follow safety measures to avoid accidents</i>	11	24	-	-
PC5. use protective clothing/equipment for specific tasks and work conditions	2	4	-	-
PC6. identify job-site hazardous work and possible causes of risk or accident at the workplace	2	4	-	-
PC7. deal with hazards safely and appropriately to ensure safety of self and others as per organisational protocol	2	4	-	-
PC8. use various types of fire extinguishers effectively	2	4	-	-
PC9. respond promptly and appropriately to an accident situation or medical emergency	1	4	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. provide cardio-pulmonary resuscitation (CPR) as per the requirement (e.g. cardiac arrest)	2	4	-	-
<i>Follow emergency procedures</i>	6	12	-	-
PC11. follow workplace emergency and evacuation procedures	2	4	-	-
PC12. use safe methods to free a person from electrocution	2	4	-	-
PC13. administer appropriate first aid to victims in case of cuts, bleeding, burns, choking, electric shock, poisoning etc.	2	4	-	-
<i>Manage infection control</i>	6	15	-	-
PC14. use appropriate disinfectants to disinfect the work area and equipment as per organisational protocol	3	7	-	-
PC15. ensure personal hygiene by washing hands regularly using alcohol based sanitisers and wearing personal protective equipment (PPE)	1	4	-	-
PC16. report illness of self and others to the supervisor or concerned authority	2	4	-	-
NOS Total	30	70	-	-

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N9901
NOS Name	Implement health and safety practices at the workplace
Sector	Food Processing
Sub-Sector	Generic
Occupation	Generic
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	24/02/2022
Next Review Date	24/02/2024
NSQ Clearance Date	24/02/2022

FIC/N9902: Work effectively in an organisation

Description

This unit is about working effectively with others.

Scope

The scope covers the following :

- Communicate effectively
- Work in a team effectively
- Respect diversity

Elements and Performance Criteria

Communicate effectively

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

- PC1.** obtain complete information and instructions from designated personnel
- PC2.** reciprocate understanding and seek clarifications whenever required
- PC3.** provide information accurately and clearly
- PC4.** use inclusive language (verbal, non-verbal and written) that is gender, disability and culturally sensitive

Work in a team effectively

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

- PC5.** plan tasks to be performed as per priority and need
- PC6.** consult with and assist others to maximize effectiveness and efficiency at work
- PC7.** escalate problems and grievances beyond own scope to the concerned authority
- PC8.** take appropriate action to resolve conflicts at the workplace

Respect diversity

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

- PC9.** maintain a gender-neutral behaviour with everyone at the workplace
- PC10.** empathise with People with Disabilities (PWD) and offer help, if required
- PC11.** recognise and report incidents of harassment and discrimination to appropriate authority

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organizational quality procedures and processes associated with work
- KU2.** standards, policies, and procedures followed in the organization relevant to employment, harassment, discrimination and performance conditions
- KU3.** reporting structure, inter-dependent functions, lines, and procedures applicable at the workplace

- KU4.** different types of harassment and discrimination based on gender, disability, caste, religion, and culture
- KU5.** components of effective communication and its importance
- KU6.** importance of teamwork in organizational and individual success
- KU7.** importance of ethics and discipline for professional success
- KU8.** how to express and address grievances appropriately and effectively
- KU9.** importance and ways of managing interpersonal conflict effectively
- KU10.** different types of disabilities and the challenges faced by persons with disability (PwD)
- KU11.** laws, acts and provisions defined for PwD
- KU12.** importance of gender sensitivity and equality
- KU13.** legislations, grievance redressal mechanisms, and penalties against harassment in the workplace

Generic Skills (GS)

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

- GS1.** communicate information, doubts and concerns about work related matters in local language or Hindi/English
- GS2.** read and interpret information given in local language or Hindi/English
- GS3.** establish priorities and deadlines in consultation with other and record them
- GS4.** be punctual
- GS5.** listen to others concerns and doubts carefully and address them
- GS6.** be courteous

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Communicate effectively</i>	8	13	-	-
PC1. obtain complete information and instructions from designated personnel	2	3	-	-
PC2. reciprocate understanding and seek clarifications whenever required	2	3	-	-
PC3. provide information accurately and clearly	2	3	-	-
PC4. use inclusive language (verbal, non-verbal and written) that is gender, disability and culturally sensitive	2	4	-	-
<i>Work in a team effectively</i>	8	14	-	-
PC5. plan tasks to be performed as per priority and need	2	4	-	-
PC6. consult with and assist others to maximize effectiveness and efficiency at work	2	3	-	-
PC7. escalate problems and grievances beyond own scope to the concerned authority	2	3	-	-
PC8. take appropriate action to resolve conflicts at the workplace	2	4	-	-
<i>Respect diversity</i>	6	12	-	-
PC9. maintain a gender-neutral behaviour with everyone at the workplace	2	4	-	-
PC10. empathise with People with Disabilities (PwD) and offer help, if required	2	4	-	-
PC11. recognise and report incidents of harassment and discrimination to appropriate authority	2	4	-	-
NOS Total	22	39	-	-

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N9902
NOS Name	Work effectively in an organisation
Sector	Food Processing
Sub-Sector	Generic
Occupation	Generic
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	24/02/2022
Next Review Date	18/06/2026
NSQC Clearance Date	24/02/2022

SGJ/N1702: Optimize resource utilization at workplace

Description

This unit is about adopting sustainable practices and optimizing use of resources, especially material, energy and waste, in day-to-day operations at work

Scope

The scope covers the following :

- Material conservation practices
- Energy/electricity conservation practices
- Effective waste management/recycling practices

Elements and Performance Criteria

Material conservation practices

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

- PC1.** identify ways to optimize usage of material including water in various tasks/activities/processes
- PC2.** check for spills/leakages in various tasks/activities/processes
- PC3.** plug spills/leakages and escalate to appropriate authority if unable to rectify
- PC4.** carry out routine cleaning of tools, machines and equipment

Energy/electricity conservation practices

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

- PC5.** identify ways to optimize usage of electricity/energy in various tasks/activities/processes
- PC6.** check if the equipment/machine is functioning normally before commencing work and rectify wherever required
- PC7.** report malfunctioning (fumes/sparks/emission/vibration/noise) and lapse in maintenance of equipment
- PC8.** ensure electrical equipment and appliances are properly connected and turned off when not in use

Effective waste management/recycling practices

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

- PC9.** identify recyclable and non-recyclable, and hazardous waste generated
- PC10.** segregate waste into different categories
- PC11.** dispose non-recyclable waste appropriately
- PC12.** deposit recyclable and reusable material at identified location
- PC13.** follow processes specified for disposal of hazardous waste

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** potential hazards, risks and threats based on the nature of work
- KU2.** layout of the workstation and electrical and thermal equipment used
- KU3.** organizations procedures for minimizing waste
- KU4.** efficient and inefficient utilization of material and water
- KU5.** ways of efficiently managing material and water in the process
- KU6.** basics of electricity and prevalent energy efficient devices
- KU7.** ways to recognize common electrical problems
- KU8.** common practices of conserving electricity
- KU9.** usage of different colours of dustbins
- KU10.** categorization of waste into dry, wet, recyclable, non-recyclable and items of single-use plastics
- KU11.** waste management and methods of waste disposal
- KU12.** common sources of pollution and ways to minimize it

Generic Skills (GS)

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

- GS1.** record data on waste disposal at workplace
- GS2.** complete statutory documents relevant to safety and hygiene
- GS3.** read Standard Operating Practices (SOP) documents
- GS4.** communicate with colleagues on the significance of greening of jobs
- GS5.** make timely decisions for efficient utilization of resources
- GS6.** complete tasks efficiently and accurately within stipulated time
- GS7.** work with supervisors/team members to carry out work related tasks
- GS8.** identify cause and effect of greening of jobs

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Material conservation practices</i>	4	8	-	-
PC1. identify ways to optimize usage of material including water in various tasks/activities/processes	1	2	-	-
PC2. check for spills/leakages in various tasks/activities/processes	1	2	-	-
PC3. plug spills/leakages and escalate to appropriate authority if unable to rectify	1	2	-	-
PC4. carry out routine cleaning of tools, machines and equipment	1	2	-	-
<i>Energy/electricity conservation practices</i>	4	8	-	-
PC5. identify ways to optimize usage of electricity/energy in various tasks/activities/processes	1	2	-	-
PC6. check if the equipment/machine is functioning normally before commencing work and rectify wherever required	1	2	-	-
PC7. report malfunctioning (fumes/sparks/emission/vibration/noise) and lapse in maintenance of equipment	1	2	-	-
PC8. ensure electrical equipment and appliances are properly connected and turned off when not in use	1	2	-	-
<i>Effective waste management/recycling practices</i>	5	10	-	-
PC9. identify recyclable and non-recyclable, and hazardous waste generated	1	2	-	-
PC10. segregate waste into different categories	1	2	-	-
PC11. dispose non-recyclable waste appropriately	1	2	-	-
PC12. deposit recyclable and reusable material at identified location	1	2	-	-
PC13. follow processes specified for disposal of hazardous waste	1	2	-	-
NOS Total	13	26	-	-

National Occupational Standards (NOS) Parameters

NOS Code	SGJ/N1702
NOS Name	Optimize resource utilization at workplace
Sector	Green Jobs
Sub-Sector	Other Green Jobs
Occupation	Resource Optimization
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	24/02/2022
Next Review Date	24/02/2026
NSQC Clearance Date	24/02/2022

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 proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on 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 theory part for each candidate at each examination/training centre (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical 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.
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/N9026.Prepare for production	30	70	-	-	100	30
FIC/N8516.Carry out production of sweet and savoury products	30	70	-	-	100	45
FIC/N9901.Implement health and safety practices at the workplace	30	70	-	-	100	10
FIC/N9902.Work effectively in an organisation	22	39	-	-	61	10
SGJ/N1702.Optimize resource utilization at workplace	13	26	-	-	39	5
Total	125	275	-	-	400	100

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
CPR	Cardio-Pulmonary Resuscitation
GMP	Good Manufacturing Practices
GHP	Good Hygiene Practices
PwD	Persons with Disability

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.

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.
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 Standard	NOS are occupational standards which apply uniquely in the Indian context.
Qualification 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 '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	Knowledge and Understanding (KU) are statements that together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
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 or Generic Skills	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 and work environment. In the context of the OS, these include communication-related skills that are applicable to most job roles.