



Pickle and Paste Making Technician

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

The Pickle and Paste Making Technician carries out production of various types of pickles and pastes using different types of fruits and vegetables in adherence with standard work practices.

Personal Attributes

A Pickle and Paste Making Technician must have the ability to plan, organize and prioritize tasks effectively. The individual must also perform routine arithmetic calculations and read and communicate effectively.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [FIC/N9026: Prepare for production](#)
2. [FIC/N0204: Carry out production of various types of pickles and pastes](#)
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	Fruits and Vegetables
Occupation	
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7514.1000

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/N0204: Carry out production of various types of pickles and pastes

Description

This unit is about preparing different types of pickles and pastes from fruits and vegetables as per the specifications and standard work practices.

Scope

The scope covers the following :

- Wash and sort the vegetables
- Peel and slice vegetables
- Prepare brine solution(preserves) and cure vegetables
- Prepare pastes
- Prepare Murabba
- Packaging and Post Production Activities

Elements and Performance Criteria

Wash and sort the vegetables

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

- PC1.** use appropriate sampling procedure to test the water quality, before start of operation
- PC2.** determine the water level in the tank for washing the fruits and vegetables
- PC3.** adjust the pressure of the spraying system adequately for rinsing the fruits and vegetables
- PC4.** monitor and adjust the air temperature and fan speed of the drying line conveyor for drying the rinsed vegetables to remove moisture content and transfer the materials to sorting line
- PC5.** inspect and discard damaged fruits and vegetables
- PC6.**
 - adjust speed of sorting line conveyor to arrange them on the basis of their grade
 - grade: size, shape, colour, appearance etc
- PC7.** transfer the sorted vegetables to the peeling machine for peeling and slicing

Peel and slice vegetables

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

- PC8.** de-skin the vegetables/fruits using peeling machine, lye solution etc. as per the standard work practices
- PC9.** operate controls of the spraying system for washing the peeled fruits and vegetables
- PC10.** adjust controls of the slicing machine for cutting the vegetables to required size
- PC11.** collect sliced vegetables from the discharge chute and transfer them to the inspection line conveyor
- PC12.** inspect the sliced vegetables for any spoilage thoroughly

Prepare brine solution(preserves) and cure vegetables

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

- PC13.** assemble the ingredients required for pickle making such as vinegar, salt, sugar, etc.
- PC14.** fill the steam jacketed kettle with water adequately for steaming the vegetables/fruits
- PC15.** prepare the brine solution for softening the vegetables

- PC16.** use salinometer to check the salt concentration of the brine solution
- PC17.** transfer the brine solution from mixing tank to storage tanks while ensuring no spillage takes place
- PC18.** place the cut vegetables in brine solution for fermentation
- PC19.** stir the vegetables periodically for salt equilibrium and check the acidity to confirm that fermentation process is complete

Prepare pastes

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

- PC20.** crush the cured vegetables with a mill/crusher and make a coarse paste with a pulper
- PC21.** transfer the coarse paste from pulper to grinding machine to make a fine paste
- PC22.** add preservatives, salts, etc. as per type of paste to be produced
- PC23.** transfer the fermented vegetables to the pickle mixing machine appropriately
- PC24.** prepare spice mix as per formulation; add measured quantity and oil to the vegetables
- PC25.** mix all the ingredients, stir well and check for the consistency
- PC26.** transfer pickle into designated container (for pickle in oil) once it is mixed well
- PC27.** control speed of the conveyor to load the pickle mixture into the hopper of the filling machine
- PC28.** position the measured containers right under the filling nozzle
- PC29.** inspect the finished product to confirm whether it meets the quality standards of the organisation

Prepare Murabba

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

- PC30.** add water in the batch mixing cooker, and put the cut fruits or vegetables and bring it to a boil till the ingredients become tender and transparent
- PC31.** prepare the sugar syrup based on the type of murabba to be produced
- PC32.** use refractometer to measure the degree brix (sugar content) of the syrup
- PC33.** add boiled fruits/vegetables to the sugar syrup and heat them until they are evenly mixed
- PC34.** cool the mixture prepared and transfer it to the storage tank for packaging

Packaging and Post Production Activities

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

- PC35.** load appropriate labels in the packaging machine and accurate information for packing the finished product while following food laws and regulations
- PC36.** monitor the packaging process (such as pickle filling, sealing, labelling, etc.) and carry out adjustments as required
- PC37.** handover a sample of the finished product to concerned personnel for quality analysis as per production requirements Analysis – physical, chemical, biological, sensory, shelf life etc.
- PC38.** pack the finished product into cartons and move them to storage area manually or mechanically, following standard work practices
- PC39.** report discrepancies/concerns to supervisor promptly for immediate action
- PC40.** attend minor repairs/faults of all machines (if any)
- PC41.** clean work area, machineries, equipment and tools using industry approved cleaning procedures (such as Clean in Place, Cleaning out of Place), cleaning agents and sanitizers
- PC42.** follow organizational procedure for disposal of waste

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organisational standards and procedures pertaining to production, quality analysis, maintenance, reporting, documentation, etc.
- KU2.** quality of water required for washing of fruits and vegetable
- KU3.** importance of water testing before start of operations
- KU4.** how to ensure adequate pressure of spraying system for rinsing of fruits and vegetables without damaging the outer layer
- KU5.** standard methods used for drying in fruits and vegetable after washing
- KU6.** how to move the fruits and vegetables from one place to another safely
- KU7.** how to carry out processes such as peeling and slicing without damaging the fruits and vegetables
- KU8.** sorting and grading the fruits and vegetables on the basis of their size, shape, colour, appearance, etc.
- KU9.** intrinsic and extrinsic factors affecting the spoilage of fruits and vegetables
- KU10.** inspection techniques to detect spoilages, damaged fruits and vegetables and procedure followed to discard them appropriately
- KU11.** how to operate the machinery used for pickle and paste making such as washing tank, drying line conveyor, peeling machine, de-skinner, crusher, pulper, grinding machines, jacketed and non-jacketed kettles, extruder, etc.
- KU12.** use of different ingredients for pickle and paste making
- KU13.** procedure to prepare the brine solution and tasks to be performed for the preservation of pickles, pastes and murabba
- KU14.** use of salinometer in the process
- KU15.** importance and use of the salt, brine and oil solution for pickle making
- KU16.** time taken and precautions to be followed for the completion of fermentation process
- KU17.** how to inspect the coarseness and consistency of the paste
- KU18.** types of containers/packaging material used for packing the pickles and pastes
- KU19.** procedure to be followed in murabba making (type of preservative to be used, sugar required, degree of brix in sugar solution, temperature required for heating and cooling the murabba, etc.)
- KU20.** how to ensure desired consistency of the sugar syrup in murabba making
- KU21.** procedure to be followed for storing the raw materials and packaging materials used in pickle, paste and murabba making
- KU22.** food laws and regulations applicable to product packaging and labelling and the information to be printed on the packet labels
- KU23.** different types of packaging material to be used for packaging of pickle, paste and murabba
- KU24.** how to operate the different packaging machines and pattern followed for different stock keeping units for pickle, paste and murabba
- KU25.** sampling procedures to be followed for the finished products
- KU26.** standard work practices used to repair minor faults in pickle, paste and murabba making machines and equipment
- KU27.** how to use chemical cleaners, sanitizers, disinfectants and storing them safely

- KU28.** organizational procedure for disposal of waste material from the processing area in an environmentally safe manner
- KU29.** workplace safety requirements, and hazard handling procedures
- KU30.** fundamentals of Good Manufacturing Practices to be followed in the food processing industry
- KU31.** basic principles of HACCP to be implemented in the process
- KU32.** importance of ensuring a tidy workplace

Generic Skills (GS)

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

- GS1.** read and interpret organizational policies, Standard Operating Procedure, Process manuals, etc.
- GS2.** communicate with others effectively
- GS3.** plan and prioritize tasks to maximize productivity
- GS4.** basic arithmetic operations
- GS5.** be punctual and courteous
- GS6.** read equipment manuals and process documents to understand the equipment operation and process requirement

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Wash and sort the vegetables</i>	5	8	-	-
PC1. use appropriate sampling procedure to test the water quality, before start of operation	-	-	-	-
PC2. determine the water level in the tank for washing the fruits and vegetables	-	-	-	-
PC3. adjust the pressure of the spraying system adequately for rinsing the fruits and vegetables	-	-	-	-
PC4. monitor and adjust the air temperature and fan speed of the drying line conveyor for drying the rinsed vegetables to remove moisture content and transfer the materials to sorting line	-	-	-	-
PC5. inspect and discard damaged fruits and vegetables	-	-	-	-
PC6. • adjust speed of sorting line conveyor to arrange them on the basis of their grade • grade: size, shape, colour, appearance etc	-	-	-	-
PC7. transfer the sorted vegetables to the peeling machine for peeling and slicing	-	-	-	-
<i>Peel and slice vegetables</i>	5.5	8	-	-
PC8. de-skin the vegetables/fruits using peeling machine, lye solution etc. as per the standard work practices	-	-	-	-
PC9. operate controls of the spraying system for washing the peeled fruits and vegetables	-	-	-	-
PC10. adjust controls of the slicing machine for cutting the vegetables to required size	-	-	-	-
PC11. collect sliced vegetables from the discharge chute and transfer them to the inspection line conveyor	-	-	-	-
PC12. inspect the sliced vegetables for any spoilage thoroughly	-	-	-	-
<i>Prepare brine solution(preserves) and cure vegetables</i>	5	14	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. assemble the ingredients required for pickle making such as vinegar, salt, sugar, etc.	-	-	-	-
PC14. fill the steam jacketed kettle with water adequately for steaming the vegetables/fruits	-	-	-	-
PC15. prepare the brine solution for softening the vegetables	-	-	-	-
PC16. use salinometer to check the salt concentration of the brine solution	-	-	-	-
PC17. transfer the brine solution from mixing tank to storage tanks while ensuring no spillage takes place	-	-	-	-
PC18. place the cut vegetables in brine solution for fermentation	-	-	-	-
PC19. stir the vegetables periodically for salt equilibrium and check the acidity to confirm that fermentation process is complete	-	-	-	-
<i>Prepare pastes</i>	5	18	-	-
PC20. crush the cured vegetables with a mill/crusher and make a coarse paste with a pulper	-	-	-	-
PC21. transfer the coarse paste from pulper to grinding machine to make a fine paste	-	-	-	-
PC22. add preservatives, salts, etc. as per type of paste to be produced	-	-	-	-
PC23. transfer the fermented vegetables to the pickle mixing machine appropriately	-	-	-	-
PC24. prepare spice mix as per formulation; add measured quantity and oil to the vegetables	-	-	-	-
PC25. mix all the ingredients, stir well and check for the consistency	-	-	-	-
PC26. transfer pickle into designated container (for pickle in oil) once it is mixed well	-	-	-	-
PC27. control speed of the conveyor to load the pickle mixture into the hopper of the filling machine	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC28. position the measured containers right under the filling nozzle	-	-	-	-
PC29. inspect the finished product to confirm whether it meets the quality standards of the organisation	-	-	-	-
<i>Prepare Murabba</i>	5	10	-	-
PC30. add water in the batch mixing cooker, and put the cut fruits or vegetables and bring it to a boil till the ingredients become tender and transparent	-	-	-	-
PC31. prepare the sugar syrup based on the type of murabba to be produced	-	-	-	-
PC32. use refractometer to measure the degree brix (sugar content) of the syrup	-	-	-	-
PC33. add boiled fruits/vegetables to the sugar syrup and heat them until they are evenly mixed	-	-	-	-
PC34. cool the mixture prepared and transfer it to the storage tank for packaging	-	-	-	-
<i>Packaging and Post Production Activities</i>	4.5	12	-	-
PC35. load appropriate labels in the packaging machine and accurate information for packing the finished product while following food laws and regulations	-	-	-	-
PC36. monitor the packaging process (such as pickle filling, sealing, labelling, etc.) and carry out adjustments as required	-	-	-	-
PC37. handover a sample of the finished product to concerned personnel for quality analysis as per production requirements Analysis – physical, chemical, biological, sensory, shelf life etc.	-	-	-	-
PC38. pack the finished product into cartons and move them to storage area manually or mechanically, following standard work practices	-	-	-	-
PC39. report discrepancies/concerns to supervisor promptly for immediate action	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC40. attend minor repairs/faults of all machines (if any)	-	-	-	-
PC41. clean work area, machineries, equipment and tools using industry approved cleaning procedures (such as Clean in Place, Cleaning out of Place), cleaning agents and sanitizers	-	-	-	-
PC42. follow organizational procedure for disposal of waste	-	-	-	-
NOS Total	30	70	-	-

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N0204
NOS Name	Carry out production of various types of pickles and pastes
Sector	Food Processing
Sub-Sector	Fruits and Vegetables
Occupation	Processing-Fruits and Vegetables
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
NSQC 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/N0204.Carry out production of various types of pickles and pastes	30	70	-	-	100	40
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	10
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

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.