



Assistant Pickle and Paste Making Technician (Fruits & Vegetables)

QP Code: FIC/Q0203

Version: 2.0

NSQF Level: 3

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Qualification Pack

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FIC/Q0203: Assistant Pickle and Paste Making Technician (Fruits and Vegetables)

Brief Job Description

An Assistant Pickle and Paste Making Technician (Fruits and Vegetables) is responsible for the preparation, processing, and packaging of different types of pickles and pastes using different types of fruits and vegetables in accordance with industry standards and regulations. This role involves handling raw ingredients, operating processing equipment, maintaining hygiene standards, ensuring product quality and safety, and adhering to production schedules.

Personal Attributes

An Assistant Pickle and Paste Making Technician (Fruits & Vegetables) must have the ability to plan, organize, and prioritize tasks effectively. The individual must have good communication skills, should be interested in sensory evaluations, and have a keen approach towards fruits and vegetables processing.

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/N9906: Apply food safety guidelines in Food Processing](#)
4. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

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Qualification Pack (QP) Parameters

Sector	Food Processing
Sub-Sector	Fruits and Vegetables
Occupation	Processing-Fruits and Vegetables
Country	India
NSQF Level	3
Credits	1
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7514.1000
Minimum Educational Qualification & Experience	10th grade pass OR 8th grade pass with 3 Year of experience relevant experience OR Previous relevant Qualification of NSQF Level (2) with 3 Years relevant experience in Food Processing Industry OR Previous relevant Qualification of NSQF Level (2.5) with 1.5 years of relevant experience in Food Processing Industry
Minimum Level of Education for Training in School	NA
Pre-Requisite License or Training	NA
Minimum Job Entry Age	16 Years
Last Reviewed On	NA
Next Review Date	16/12/2027
NSQC Approval Date	17/12/2024
Version	2.0
Reference code on NQR	
NQR Version	

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FIC/N9026: Prepare for production

Description

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

Scope

The scope covers the following:

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

Elements and Performance Criteria

Plan for production

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

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

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

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

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

Organize for production

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

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

Knowledge and Understanding (KU)

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The individual on the job needs to know and understand:

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

Generic Skills (GS)

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

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

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Plan for production</i>	11	25	-	3
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	-	4
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	-	3
PC11. organize tools and equipment	2	7	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. receive and organize production materials appropriately. Production materials: raw materials, packaging materials, etc.	2	4	-	-
PC13. allot responsibilities/work to the assistants and helpers	1	2	-	-
NOS Total	30	70	-	10

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National Occupational Standards (NOS) Parameters

NOS Code	FIC/N9026
NOS Name	Prepare for production
Sector	Food Processing
Sub-Sector	Generic
Occupation	Production
NSQF Level	3
Credits	5
Version	1.0
Last Reviewed Date	24/02/2022
Next Review Date	
NSQC Clearance Date	24/02/2022

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

Description

This unit is about preparing different types of pickles like Chilly, Mix, Mango etc. and pastes like Ginger, Garlic etc. 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 Pickles & Paste
- Prepare Murabba
- Packaging and Postproduction 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 and other techniques(Immersion Washing ,Ultrasonic Washing ,Ozone Washing ,Chlorine Washing ,Peracetic Acid (PAA) Washing ,Electrolyzed Water Washing), 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 fruits & vegetables

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

- PC13. assemble the ingredients required for preparing the solution such as vinegar, salt, sugar, etc.

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- PC14. measure ingredients (salt, water, and any additional ingredients (e.g., sugar, spices)) according to the recipe.
- PC15. prepare the brine solution.
- PC16. use a salinometer to check the salt concentration of the brine solution
- PC17. Maintain appropriate storage conditions (temperature, humidity) to preserve the brine's quality.
- PC18. transfer the brine solution from mixing tank to storage tanks while ensuring no spillage takesplace
- PC19. Store the prepared brine solution in clean, labeled containers.
- PC20. fill the steam-jacketed kettle with water adequately for steaming the vegetables/fruits
- PC21. Apply any necessary pre-treatments like blanching or soaking to prepare the produce for curing.
- PC22. place the cut vegetables in brine solution for fermentation
- PC23. stir the vegetables periodically for salt equilibrium and check the acidity to confirm that fermentation process is complete
- PC24. check the curing progress for any signs of spoilage or contamination.

Prepare Pickles & Paste

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

- PC25. Blanch vegetables to preserve color, flavor, and texture.
- PC26. crush the cured vegetables with a mill/crusher and make a coarse paste with a pulper
- PC27. transfer the coarse paste from pulper to grinding machine to make a fine paste
- PC28. Cook the paste to develop flavors and reduce microbial load.
- PC29. add preservatives, salts, etc. as per type of paste to be produced
- PC30. Allow the paste to cool down using methods like- Air Cooling, Blast Chilling, Ice Bath Cooling, Water Jacket Cooling, Cold Room Storage.
- PC31. transfer the fermented vegetables to the pickle mixing machine appropriately
- PC32. prepare spice mix as per formulation; add measured quantity and oil to the vegetables
- PC33. mix all the ingredients, stir well and check for the consistency
- PC34. transfer pickle into designated container (for pickle in oil) once it is mixed well
- PC35. control speed of the conveyor to load the pickle mixture into the hopper of the filling machine
- PC36. position the measured containers right under the filling nozzle
- PC37. 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:

- PC38. add water in the batch mixing cooker, and put the cut fruits or vegetables and bring it to aboil till the ingredients become tender and transparent
- PC39. prepare the sugar syrup based on the type of murabba to be produced
- PC40. use refractometer to measure the degree brix (sugar content) of the syrup
- PC41. add boiled fruits/vegetables to the sugar syrup and heat them until the fruits and vegetables completely absorbs the sugar solution
- PC42. cool the mixture prepared and transfer it to the storage tank for packaging

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Packaging and Post Production Activities

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

- PC43. Select appropriate packaging materials considering the type of product and packaging requirements.
- PC44. Ensure packaging materials meet regulatory standards and quality specifications.
- PC45. Verify the integrity of packaging materials to prevent contamination or damage to the product.
- PC46. load appropriate labels in the packaging machine and accurate information for packing the finished product while following food laws and regulations
- PC47. Operate packaging machinery effectively and safely, including bottle fillers, capping machines, sealing equipment, and pouch filling machines.
- PC48. monitor the packaging process (such as pickle filling, sealing, labelling, etc.) and carry out adjustments as required
- PC49. 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.
- PC50. pack the finished product into cartons and move them to storage area manually or mechanically, following standard work practices
- PC51. report discrepancies/concerns to supervisor promptly for immediate action
- PC52. attend minor repairs/faults of all machines (if any)
- PC53. 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
- PC54. 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. Knowledge about drinking water specifications and its relevant standards required for washing of fruits and vegetables
- 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 carry out processes such as peeling and slicing without damaging the fruits and vegetables
- KU7. sorting and grading the fruits and vegetables on the basis of their size, shape, colour, appearance, etc.
- KU8. types of automated machinery used in pickle and paste making, such as filling machines, sealing equipment, labeling machines, and conveyor systems.
- KU9. principles of operation and functionality of each automated machine.
- KU10. components, sensors, actuators, and control systems used in automated machinery.
- KU11. operating automated machinery, including starting, stopping, and adjusting machine settings.

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- KU12. standard operating procedures (SOPs) for loading ingredients, initiating the production process, and monitoring machine performance.
- KU13. cleaning procedures like CIP and COP
- KU14. food laws and regulations on product, packaging and labelling
- KU15. safety protocols and emergency procedures when operating automated machinery.
- KU16. How to identify and troubleshoot common issues and malfunctions in automated machinery, such as jammed conveyors, sensor failures, or equipment breakdowns.
- KU17. preventive maintenance practices to ensure the smooth operation of automated machinery, including routine inspections, lubrication, and cleaning procedures.
- KU18. minor repairs and adjustments to automated machinery, such as replacing worn-out parts or recalibrating sensors.
- KU19. intrinsic and extrinsic factors affecting the spoilage of fruits and vegetables
- KU20. inspection techniques to detect spoilages, damaged fruits and vegetables and procedure followed to discard them appropriately
- KU21. 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.
- KU22. use of different ingredients for pickle and paste making
- KU23. procedure to prepare the brine solution and tasks to be performed for the preservation of pickles, pastes and murabba
- KU24. use of salinometer in the process
- KU25. importance and use of the salt, brine and oil solution for pickle making
- KU26. time taken and precautions to be followed for the completion of fermentation process
- KU27. how to inspect the coarseness and consistency of the paste
- KU28. types of containers/packaging material used for packing the pickles and pastes
- KU29. use of Class II preservatives
- KU30. 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.)
- KU31. how to ensure desired consistency of the sugar syrup in murabba making
- KU32. procedure to be followed for storing the raw materials and packaging materials used in pickle, paste and murabba making
- KU33. different types of packaging material to be used for packaging of pickle, paste and murabba
- KU34. Fermented and Unfermented Pickle
- KU35. sampling procedures to be followed for the finished products
- KU36. Awareness about the Preventive and breakdown maintenance in case of the planned & unplanned production run stoppage for pickle, paste and murabba processing equipment's and machineries
- KU37. how to use chemical cleaners, sanitizers, disinfectants and storing them safely
- KU38. organizational procedure for disposal of waste material from the processing area in an environmentally safe manner

Generic Skills (GS)



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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

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Wash and sort the vegetables</i>	5	8	-	2
PC1. use appropriate sampling procedure to test the water quality, before start of operation	0.5	1	-	-
PC2. determine the water level in the tank for washing the fruits and vegetables	1	1	-	-
PC3. adjust the pressure of the spraying system adequately for rinsing the fruits and vegetables	0.5	2	-	-
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	1	1	-	-
PC5. inspect and discard damaged fruits and vegetables	1	1	-	-
PC6. adjust speed of sorting line conveyor to arrange them on the basis of their grade grade: size, shape, colour, appearance etc	0.5	1	-	-
PC7. transfer the sorted vegetables to the peeling machine for peeling and slicing	0.5	1	-	-
<i>Peel and slice vegetables</i>	5	7	-	1
PC8. de-skin the vegetables/fruits using peeling machine, lye solution etc. as per the standard work practices	1	1	-	-
PC9. operate controls of the spraying system and other techniques (Immersion Washing, Ultrasonic Washing, Ozone Washing, Chlorine Washing, Peracetic Acid (PAA) Washing, Electrolyzed Water Washing), for washing the peeled fruits and vegetables	1	2	-	-
PC10. adjust controls of the slicing machine for cutting the vegetables to required size	1	2	-	-

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PC11. collect sliced vegetables from the discharge chute and transfer them to the inspection line conveyor	1	1	-	-
PC12. inspect the sliced vegetables for any spoilage thoroughly	1	1	-	-
<i>Prepare brine solution (preserves) and cure vegetables</i>	6	9	-	2
PC13. assemble the ingredients required for preparing the solution such as vinegar, salt, sugar, etc.	0.5	0.5	-	-
PC14. measure ingredients (salt, water, and any additional ingredients (e.g., sugar, spices)) according to the recipe.	0.5	0.5	-	-
PC15. prepare the brine solution.	0.5	1	-	-
PC16. use salinometer to check the salt concentration of the brine solution	0.5	1	-	-
PC17. Maintain appropriate storage conditions (temperature, humidity) to preserve the brine's quality.	0.5	1	-	-
PC18. transfer the brine solution from mixing tank to storage tanks while ensuring no spillage takes place	0.5	1	-	-
PC19. Store the prepared brine solution in clean, labeled containers.	0.5	0.5	-	-
PC20. fill the steam jacketed kettle with water adequately for steaming the vegetables/fruits	0.5	1	-	-
PC21. Apply any necessary pre-treatments like blanching or soaking to prepare the produce for curing.	0.5	1	-	-
PC22. place the cut vegetables in brine solution for fermentation	0.5	0.5	-	-
PC23. stir the vegetables periodically for salt equilibrium and check the acidity to confirm that fermentation process is complete	0.5	0.5	-	-

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PC24. check the curing progress for any signs of spoilage or contamination.	0.5	0.5		
<i>Prepare Pickles & Paste</i>	6	15	-	2
PC25. Blanch vegetables to preserve color, flavor, and texture.	0.5	1		
PC26. crush the cured vegetables with a mill/crusher and make a coarse paste with a pulper	0.5	1	-	-
PC27. transfer the coarse paste from pulper to grinding machine to make a fine paste	0.5	0.5	-	-
PC28. Cook the paste to develop flavors and reduce microbial load.	0.5	2		
PC29. add preservatives, salts, etc. as per type of paste to be produced	0.5	2	-	-
PC30. Allow the paste to cool down using methods like- Air Cooling, Blast Chilling, Ice Bath Cooling, Water Jacket Cooling, Cold Room Storage.	0.5	2		
PC31. transfer the fermented vegetables to the pickle mixing machine appropriately	0.5	0.5	-	-
PC32. prepare spice mix as per formulation; add measured quantity and oil to the vegetables	0.5	1	-	-
PC33. mix all the ingredients, stir well and check for the consistency	0.5	1	-	-
PC34. transfer pickle into designated container (for pickle in oil) once it is mixed well	0.5	1	-	-
PC35. control speed of the conveyor to load the pickle mixture into the hopper of the filling machine	0.5	1	-	-
PC36. position the measured containers right under the filling nozzle	0.5	1	-	-
PC37. inspect the finished product to confirm whether it meets the quality standards of the organisation	0.5	1	-	-

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<i>Prepare Murabba</i>	5	8	-	2
PC38. 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	1	1	-	-
PC39. prepare the sugar syrup based on the type of murabba to be produced	1	2	-	-
PC40. use refractometer to measure the degree brix (sugar content) of the syrup	1	2	-	-
PC41. add boiled fruits/vegetables to the sugar syrup and heat them until they are evenly mixed	1	2	-	-
PC42. cool the mixture prepared and transfer it to the storage tank for packaging	1	1	-	-
<i>Packaging and Post Production Activities</i>	8	8	-	1
<i>PC43. Select appropriate packaging materials considering the type of product and packaging requirements.</i>	0.5	0.5		
<i>PC44. Ensure packaging materials meet regulatory standards and quality specifications.</i>	0.5	0.5		
<i>PC45. Verify the integrity of packaging materials to prevent contamination or damage to the product.</i>	0.5	0.5		
PC46. load appropriate labels in the packaging machine and accurate information for packing the finished product while following food laws and regulations	0.5	0.5	-	-
<i>PC47. Operate packaging machinery effectively and safely, including bottle fillers, capping machines, sealing equipment, and pouch filling machines.</i>	1	1		
PC48. monitor the packaging process (such as pickle filling, sealing, labelling, etc.) and carry out adjustments as required	1	1	-	-
PC49. 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.	1	1	-	-

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PC50. pack the finished product into cartons and move them to storage area manually or mechanically, following standard work practices	1	1	-	-
PC51. report discrepancies/concerns to supervisor promptly for immediate action	0.5	0.5	-	-
PC52. attend minor repairs/faults of all machines (if any)	0.5	0.5	-	-
PC53. 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	0.5	0.5	-	-
PC54. follow organizational procedure for disposal of waste	0.5	0.5	-	-
NOS Total	35	55	-	10

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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	5
Version	1.0
Last Reviewed Date	23/06/2023
Next Review Date	23/06/2026
NSQC Clearance Date	23/06/2023

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FIC/N9906: Apply food safety guidelines in Food Processing

Description

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

Scope

The scope covers the following :

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

Elements and Performance Criteria

Apply personal hygiene and follow Good Manufacturing practices at workplace

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

- PC1. **P** follow a site relevant documented procedure for Personal Hygiene and Visitor/ Contractor rules.
- PC2. follow work instructions at levels of employees inside a food manufacturing site and ensure that the relevant instructions are well communicated and being followed at the fixed timelines.
- PC3. ensure timely participate and carry out the relevant training and awareness sessions on personal hygiene, GMP, and related topics.
- PC4. ensure timely medical examination from a prescribed and authorized doctor and comply with the guidelines of Schedule IV as described in Food Safety Standard Authority of India (FSSAI) guidelines.
- PC5. fill in data in the daily monitoring checklist related to personal hygiene, food safety, and GMP.
- PC6. follow a site-relevant documented procedure and area-wise work instructions for Good Manufacturing Practices (GMP) to be followed on the site.
- procedure: Hand washing requirements, Gowning & De gowning protocols, cleaning, and sanitation of employee lockers, follow the protocols as laid down in the different categories of processing areas like Low Risk, High Risk, High Care areas, etc.
- PC7. follow all validated Do's & Don'ts inside a food manufacturing firm.
- PC8. follow man and materials movement throughout the production facility, to restrict unwanted hazards to cross-contaminate the products which are being manufactured in the facility.
- PC9. refer to the process flow charts, HACCP summary plan, and critical process parameters in each and respective areas of the production line.
- PC10. identify the material requirements such as manufacturing equipments, Utensils, and other processing aids, cleaning chemicals, and cleaning work instructions in all the relevant areas of the manufacturing facility. Also, a special focus shall be given to Allergens and their risks. Wherever required, the allergen requirements shall be separately addressed.

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- PC11. ensure to properly tag and number all the equipment, machinery, tools, and other processing aids to keep proper traceability of the product being manufactured and handled at the site.
- PC12. follow and implement all training and awareness guidelines in the manufacturing area and regularly participate in training effectiveness for evaluation.
- PC13. participate in audits and address the aspects of Good Manufacturing Procedures, personal hygiene, and food safety.
- PC14. ensure the record keeping and documentation such as Daily Monitoring Sheets, Batch Traceability Records, machine records, product parameters, process control parameters, etc.

Implement food safety practices at the workplace

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

- PC15. maintain updated facilities, equipment, and tool and design requirements to minimize the risks associated with the products being handled at the site.
- PC16. follow the instruction in the raw and packaging materials warehouse and ensure receiving material parameters match all the laid requirements. parameters: Incoming vehicles Visual report, storage, and handling requirements, hazardous and non-hazardous goods, allergens, cross-contamination risks, Quarantine, Accepted & rejected goods, monitoring temperature and humidity, etc.
- PC17. follow FSSAI Schedule IV requirements related to Pest Control, Cleaning, and Sanitation, Utilities, Waste Disposal, Prevention of Cross-Contamination, allergen management, corrective action, preventive actions, food operation control etc.
- PC18. ensure timely check of the critical control points and product parameters.
- PC19. record keeping and documentation such as daily monitoring sheets, cleaning sheets, parameters, etc.
- PC20. report any food safety and GMP issue to the supervisor, if any.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

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

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

Generic Skills (GS)

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

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

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Apply personal hygiene and follow Good Manufacturing practices at workplace</i>	22	44	-	6
PC1. follow a site relevant documented procedure for Personal Hygiene and Visitor/Contractor rules.	2	4	-	-
PC2. follow work instructions at levels of employees inside a food manufacturing site and ensure that the relevant instructions are well communicated and being followed at the fixed timelines.	2	4	-	2
PC3. ensure timely participate and carry out the relevant training and awareness sessions on personal hygiene, GMP, and related topics.	2	4	-	-
PC4. ensure timely medical examination from a prescribed and authorized doctor and comply with the guidelines of Schedule IV as described in Food Safety Standard Authority of India (FSSAI) guidelines.	2	4	-	-
PC5. fill in data in the daily monitoring checklist related to personal hygiene, food safety, and GMP.	2	4	-	-
PC6. follow a site-relevant documented procedure and area-wise work instructions for Good Manufacturing Practices (GMP) to be followed on the site. • procedure: Hand washing requirements, Gowning & De gowning protocols, cleaning, and sanitation of employee lockers, follow the protocols as laid down in the different categories of processing areas like Low Risk, High Risk, High Care areas, etc.	2	4	-	2
PC7. follow all validated Do's & Don'ts inside a food manufacturing firm.	1	2	-	1
PC8. follow man and materials movement throughout the production facility, to restrict unwanted hazards to cross-contaminate the products which are being manufactured in the facility.	2	4	-	-
PC9. refer to the process flow charts, HACCP summary plan, and critical process parameters in each and respective areas of the production line.	1	2	-	1

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. identify the material requirements such as manufacturing equipments, Utensils, and other processing aids, cleaning chemicals, and cleaning work instructions in all the relevant areas of the manufacturing facility. Also, a special focus shall be given to Allergens and their risks. Wherever required, the allergen requirements shall be separately addressed.	2	4	-	-
PC11. ensure to properly tag and number all the equipment, machinery, tools, and other processing aids to keep proper traceability of the product being manufactured and handled at the site.	1	2	-	-
PC12. follow and implement all training and awareness guidelines in the manufacturing area and regularly participate in training effectiveness for evaluation.	1	2	-	-
PC13. participate in audits and address the aspects of Good Manufacturing Procedures, personal hygiene, and food safety.	1	2	-	-
PC14. ensure the record keeping and documentation such as Daily Monitoring Sheets, Batch Traceability Records, machine records, product parameters, process control parameters, etc.	1	2	-	-
<i>Implement food safety practices at the workplace</i>	8	16	-	4
PC15. maintain updated facilities, equipment, and tool and design requirements to minimize the risks associated with the products being handled at the site.	2	4	-	-
PC16. follow the instruction in the raw and packaging materials warehouse and ensure receiving material parameters match all the laid requirements. parameters: Incoming vehicles Visual report, storage, and handling requirements, hazardous and non-hazardous goods, allergens, cross-contamination risks, Quarantine, Accepted & rejected goods, monitoring temperature and humidity, etc.	1	2	-	1

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC17. follow FSSAI Schedule IV requirements related to Pest Control, Cleaning, and Sanitation, Utilities, Waste Disposal, Prevention of Cross- Contamination, allergen management, corrective action, preventive actions, food operation control etc.	2	4	-	2
PC18. ensure timely check of the critical control points and product parameters.	1	2	-	-
PC19. record keeping and documentation such as daily monitoring sheets, cleaning sheets, parameters, etc.	1	2	-	1
PC20. report any food safety and GMP issue to the supervisor, if any.	1	2	-	-
NOS Total	30	60	-	10

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N9001
NOS Name	Ensure food safety, hygiene and sanitation for processing food products
Sector	Food Processing
Sub-Sector	Fruits and Vegetables
Occupation	Generic
NSQF Level	4
Credits	1
Version	2.0
Last Reviewed Date	25/11/2021
Next Review Date	
NSQC Clearance Date	

Qualification Pack

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

Description

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

Scope

The scope covers the following :

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

Elements and Performance Criteria

Introduction to Employability Skills

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

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

Constitutional values - Citizenship

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

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

Becoming a Professional in the 21st Century

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

PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.

Basic English Skills

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

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

Communication Skills

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

PC5. follow good manners while communicating with others

PC6. work with others in a team

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Diversity & Inclusion

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

PC7. communicate and behave appropriately with all genders and PwD

PC8. report any issues related to sexual harassment

Financial and Legal Literacy

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

PC9. use various financial products and services safely and securely

PC10. calculate income, expenses, savings etc.

PC11. approach the concerned authorities for any exploitation as per legal rights and laws

Essential Digital Skills

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

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

PC13. use internet and social media platforms securely and safely

Entrepreneurship

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

PC14. identify and assess opportunities for potential business

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

Customer Service

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

PC16. identify different types of customers

PC17. identify customer needs and address them appropriately

PC18. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

PC19. create a basic biodata

PC20. search for suitable jobs and apply

PC21. identify and register apprenticeship opportunities as per requirement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

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

KU5. how to use basic spoken English language

KU6. Do and dont of effective communication

KU7. inclusivity and its importance

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

KU9. different types of financial products and services

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

Generic Skills (GS)

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

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

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
<i>Constitutional values - Citizenship</i>	1	1	-	-
PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	1	3	-	-
PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC4. speak with others using some basic English phrases or sentences	-	-	-	-
<i>Communication Skills</i>	1	1	-	-
PC5. follow good manners while communicating with others	-	-	-	-
PC6. work with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	1	-	-
PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC8. report any issues related to sexual harassment	-	-	-	-
<i>Financial and Legal Literacy</i>	3	4	-	-
PC9. use various financial products and services safely and securely	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. calculate income, expenses, savings etc.	-	-	-	-
PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
<i>Essential Digital Skills</i>	4	6	-	-
PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-
PC13. use internet and social media platforms securely and safely	-	-	-	-
<i>Entrepreneurship</i>	3	5	-	-
PC14. identify and assess opportunities for potential business	-	-	-	-
PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
<i>Customer Service</i>	2	2	-	-
PC16. identify different types of customers	-	-	-	-
PC17. identify customer needs and address them appropriately	-	-	-	-
PC18. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	1	3	-	-
PC19. create a basic biodata	-	-	-	-
PC20. search for suitable jobs and apply	-	-	-	-
PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
NOS Total	20	30	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0101
NOS Name	Employability Skills (30 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	17/11/2022
Next Review Date	28/07/2024
NSQC Clearance Date	29/07/2021

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

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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	60	-	10	100	30
FIC/N0204.Carry out production of various types of pickles and pastes	30	70	-	10	100	40
FIC/N9906: Apply food safety guidelines in Food Processing	30	60	-	10	100	20
DGT/VSQ/N0101: Employability Skills (30 Hours)	20	30	0	0	50	10
Total	125	275	-	-	400	100



Qualification Pack

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Qualification Pack

Glossary

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

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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.