









# Traditional Snack and Savoury Maker

QP Code: FIC/Q8501

Version: 2.0

NSQF Level: 3

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## FIC/Q8501: Traditional Snack and Savoury Maker

#### **Brief Job Description**

A Traditional Snack and Savoury Maker is responsible for making various types of snack and savoury products. S/he is responsible for receiving raw materials, checking quality, cleaning, grinding, sieving, mixing, frying, cooking, heating, cooling, blending, packing and storing.

#### **Personal Attributes**

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

#### **Applicable National Occupational Standards (NOS)**

#### **Compulsory NOS:**

- 1. FIC/N8501: Prepare and maintain work area and process machineries for making snack and savoury
- 2. FIC/N8502: Prepare for production of snack and savoury
- 3. FIC/N8503: Prepare raw material for snack and savoury
- 4. FIC/N8504: Prepare snack and savoury products
- 5. <u>FIC/N8505</u>: Complete documentation and record keeping related to making traditional snack and <u>savoury</u>
- 6. FIC/N9001: Ensure food safety, hygiene and sanitation for processing food products

#### **Qualification Pack (QP) Parameters**

Sector	Food Processing
Sub-Sector	Packaged Foods
Occupation	Processing-Packaged Foods
Country	India
NSQF Level	3







Aligned to NCO/ISCO/ISIC Code	NCO-2004/NIL
Minimum Educational Qualification & Experience	8th Class with 2 Years of experience relevant experience OR 10th Class
Minimum Level of Education for Training in School	8th Class
Pre-Requisite License or Training	1. Food standards for snack and savouries2. Food handling, packaging and storage techniques3. Computer basics (for large industries)
Minimum Job Entry Age	18 Years
Last Reviewed On	30/09/2021
Next Review Date	30/07/2024
<b>Deactivation Date</b>	30/07/2024
NSQC Approval Date	30/09/2021
Version	2.0
Reference code on NQR	2021/FI/FICSI/04517
NQR Version	1







# FIC/N8501: Prepare and maintain work area and process machineries for making snack and savoury

#### **Description**

This OS unit is about preparing and maintaining work area and process machineries and tools for making traditional snack and savoury

#### **Elements and Performance Criteria**

#### Prepare and maintain work area (for making traditional snack and savoury)

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

- **PC1.** clean and maintain the cleanliness of the work area using approved sanitizers and keep it free from dust, waste, flies and pests
- **PC2.** ensure that work area is safe and hygienic for food processing
- **PC3.** dispose waste materials as per organisation standards and industry requirements

Prepare and maintainprocess machineries and tools (for making traditional snack and savoury)

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

- **PC4.** check the working and performance of all machineries and tools used for the process such as vegetable washer, vegetable peeler, pulveriser, fryer, roaster, blender, extruder, canning machineries
- **PC5.** clean the machineries and tools used with recommended sanitizers following the organization specifications and standards
- **PC6.** place the necessary tools required for process
- PC7. attend to the minor repairs/ faults of all machines, if required

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** hygeine requirements and standards relevant to food processing unit
- **KU2.** standards and procedures followed in the organisation for cleaning process and to disinfect equipment/ tools
- **KU3.** job responsibilities/duties to maintian hygiene standards
- KU4. dress code to be followed
- **KU5.** whom to approach for support in order to obtain work related instructions, clarifications and support
- **KU6.** relevant people and their responsibilities within the work area
- **KU7.** importance of following hygiene, safety and quality standards and the impact of not following the standards
- **KU8.** types of chemicals, materials and equipment required for cleaning and maintenance
- **KU9.** process and products to disinfect equipment/ tools
- **KU10.** supplier/manufacturers instructions related to cleaning and maintenance







- **KU11.** knowledge of food safety standards and regulations (as per FSSAI)
- **KU12.** knowledge of legal regulations pertaining to work place like health and safety, recommended dosage for use of sanitizers, control of substances hazardous to health, handling/ storage/ disposal/ cautions of use of sanitizers and disinfectants, fire precautions, occurrences, hygiene practice, disposal of waste, environmental protection, etc.

#### **Generic Skills (GS)**

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

- **GS1.** note the information communicated
- GS2. note the raw materials used for production and the finished products produced
- **GS3.** note the readings of the process parameters and provide necessary information to fill the process chart
- **GS4.** note down observations (if any) related to the process
- **GS5.** write information documents to internal departments/ internal teams
- **GS6.** note down the data for online erp or as per applicability in the organization
- **GS7.** read and interpret the process required for producing various types of products
- **GS8.** read and interpret and process flowchart for all products produced
- **GS9.** read equipment manuals and process documents to understand the equipments operation and process requirement
- **GS10.** read internal information documents sent by internal teams
- **GS11.** discuss task lists, schedules and activities
- **GS12.** effectively communicate with team members
- **GS13.** question in order to understand the nature of the problem and to clarify queries
- **GS14.** attentively listen and comprehend the information given by the speaker
- GS15. communicate clearly on the issues being faced
- **GS16.** analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue
- **GS17.** handle issues in case the manager is not available (as per the authority matrix defined by the organization)
- GS18. plan and organize the work order and jobs received
- **GS19.** organize raw materials and packaging materials required for all products
- **GS20.** plan and prioritize the work based on the instructions received
- **GS21.** plan to utilise time and equipment's effectively
- **GS22.** organize all process/ equipment manuals so as to access information easily
- **GS23.** support the manager in scheduling tasks for helper(s)
- **GS24.** understand customer requirements and their priority and respond as per their needs
- **GS25.** support manager in solving problems by detailing out problems
- **GS26.** discuss the possible solutions with the manager for problem solving
- **GS27.** apply domain information about maintenance processes and technical knowledge about tools and equipment







GS28. use common sense and make judgments on day to day basis

**GS29.** use reasoning skills to identify and resolve basic problems

**GS30.** use intuition to detect any potential problems which could arise during operations

**GS31.** use acquired knowledge of the process for identifying and handling issues







#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Prepare and maintain work area (for making traditional snack and savoury)	18	32	-	-
<b>PC1.</b> clean and maintain the cleanliness of the work area using approved sanitizers and keep it free from dust, waste, flies and pests	10	15	-	-
<b>PC2.</b> ensure that work area is safe and hygienic for food processing	3	7	-	-
<b>PC3.</b> dispose waste materials as per organisation standards and industry requirements	5	10	-	-
Prepare and maintainprocess machineriesand tools (for makingtraditional snack andsavoury)	17	33	-	-
<b>PC4.</b> check the working and performance of all machineries and tools used for the process such as vegetable washer, vegetable peeler, pulveriser, fryer, roaster, blender, extruder, canning machineries	5	10	-	-
<b>PC5.</b> clean the machineries and tools used with recommended sanitizers following the organization specifications and standards	5	10	-	-
<b>PC6.</b> place the necessary tools required for process	2	3	-	-
<b>PC7.</b> attend to the minor repairs/ faults of all machines, if required	5	10	-	-
NOS Total	35	65	-	-







# **National Occupational Standards (NOS) Parameters**

NOS Code	FIC/N8501
NOS Name	Prepare and maintain work area and process machineries for making snack and savoury
Sector	Food Processing
Sub-Sector	Packaged Foods
Occupation	Processing
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	30/09/2021
Next Review Date	30/07/2024
<b>Deactivation Date</b>	30/07/2024
NSQC Clearance Date	30/09/2021







# FIC/N8502: Prepare for production of snack and savoury

#### **Description**

This OS unit is about preparation for production of various traditional snack and savoury

#### **Elements and Performance Criteria**

#### Provide support in planning production (for production of traditional snack and savoury)

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

- **PC1.** read and understand the production order from the supervisor
- PC2. check the availability of raw materials, packaging materials, equipment and manpower
- PC3. support in planning production sequence by grouping products of same category (snack/savouries) grouping products prepared from same raw materials selecting sequence of raw materials that does not impact the quality of the other avoiding change of raw materials (like oil) for each product avoiding clean-in-place (CIP)after each product using the same equipment and machinery for various products maximum capacity utilization of machineries, planning planning efficient utilization of resources/manpower
- **PC4.** calculate the bath size based on the production order and machine capacity
- **PC5.** calculate the raw material requirement (considering the process loss) to produce the required quantity of finished product(s)
- **PC6.** calculate the raw materials packaging materials and manpower requirement for completing the order

#### Plan equipment utilization (for production of traditional snack and savoury)

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

- **PC7.** ensure the working and performance of each equipment required for process
- **PC8.** calculate the process time for effective utilization of machineries
- **PC9.** plan batch size considering full capacity utilization of machineries
- **PC10.** plan to utilize machineries for multiple products without affecting the quality of the finished products, and to optimize production and saving energy
- **PC11.** allotting responsibilities/ work to the assistants and helpers

#### Organize raw material and equipment (for production of traditional snack and savoury)

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

- PC12. refer process chart/ product flow chart/formulation chart for product(s) produced
- **PC13.** weigh the raw materials required for the batch
- **PC14.** check the conformance of raw material quality to organisation standards, through physical analysis and by referring the quality analysis report from the supplier / internal lab analysis report
- **PC15.** change/fix sieves in pulveriser, sharpen and change blades of vegetable slicer/cutter, clean and install metal disks containing openings of various shape in mixer of extruder and attach blades in the extruder to cut of extruded dough
- **PC16.** ensure working and performance of required machineries and tools
- **PC17.** keep the tools accessible to attend repairs/faults in case of breakdown







#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** organization standards, process standards and procedures followed in the organisation
- **KU2.** types of products produced by the organisation
- **KU3.** job responsibilities/duties and standard operating procedures relavant to production planning
- **KU4.** systems, procedures and softwares followed in the organisation for production planning
- **KU5.** internal processes like procurement, store management, inventory management, quality management and key contact points for query resolution
- **KU6.** provision of wages, working hours as per organisation policy
- **KU7.** food safety and hygiene standards followed
- **KU8.** types of raw materials for preparing various types of snack and savouries
- **KU9.** types of machineries used for processing and machineries used in the organisation
- **KU10.** maintenance of process equipments
- **KU11.** supplier/manufacturers instructions related to machineries
- **KU12.** process for producing various types of products
- **KU13.** machineries required for production of various type of products
- **KU14.** basic mathematics
- **KU15.** calculation of raw material for required quantity of finished product
- **KU16.** quality parameters, basic food microbiology and quality assessment based on physical parameters
- **KU17.** food safety and hygiene
- **KU18.** good manufacturing practice (GMP)
- **KU19.** hazard analysis and critical control point (HACCP)

#### **Generic Skills (GS)**

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

- **GS1.** note the information communicated
- **GS2.** note the raw materials used for production and the finished products produced
- **GS3.** note the readings of the process parameters and provide necessary information to fill the process chart
- **GS4.** note down observations (if any) related to the process
- **GS5.** write information documents to internal departments/ internal teams
- **GS6.** note down the data for online ERP or as per applicability in the organization
- **GS7.** read and interpret the process required for producing various types of products
- **GS8.** read and interpret and process flowchart for all products produced
- **GS9.** read equipment manuals and process documents to understand the equipments operation and process requirement
- **GS10.** read internal information documents sent by internal teams







- GS11. discuss task lists, schedules and activities
- **GS12.** effectively communicate with team members
- **GS13.** question in order to understand the nature of the problem and to clarify queries
- GS14. attentively listen and comprehend the information given by the speaker
- GS15. communicate clearly on the issues being faced
- **GS16.** analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue
- **GS17.** handle issues in case the manager is not available (as per the authority matrix defined by the organization)
- **GS18.** plan and organize the work order and jobs received
- **GS19.** organize raw materials and packaging materials required for all products
- GS20. plan and prioritize the work based on the instructions received
- **GS21.** plan to utilise time and equipment's effectively
- GS22. organize all process/ equipment manuals so as to access information easily
- **GS23.** support the manager in scheduling tasks for helper(s)
- **GS24.** understand customer requirements and their priority and respond as per their needs
- **GS25.** support manager in solving problems by detailing out problems
- **GS26.** discuss the possible solutions with the manager for problem solving
- **GS27.** apply domain information about maintenance processes and technical knowledge about tools and equipment
- **GS28.** use common sense and make judgments on day to day basis
- **GS29.** use reasoning skills to identify and resolve basic problems
- **GS30.** use intuition to detect any potential problems which could arise during operations
- **GS31.** use acquired knowledge of the process for identifying and handling issues







#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Provide support in planning production( for production of traditional snack and savoury)	17	28	-	-
<b>PC1.</b> read and understand the production order from the supervisor	4	6	-	-
<b>PC2.</b> check the availability of raw materials, packaging materials, equipment and manpower	2	3	-	-
PC3. support in planning production sequence by grouping products of same category (snack/savouries) grouping products prepared from same raw materials selecting sequence of raw materials that does not impact the quality of the other avoiding change of raw materials (like oil) for each product avoiding clean-in-place (CIP)after each product using the same equipment and machinery for various products maximum capacity utilization of machineries, planning planning efficient utilization of resources/manpower	5	10	-	-
<b>PC4.</b> calculate the bath size based on the production order and machine capacity	2	3	-	-
<b>PC5.</b> calculate the raw material requirement (considering the process loss) to produce the required quantity of finished product(s)	2	3	-	-
<b>PC6.</b> calculate the raw materials packaging materials and manpower requirement for completing the order	2	3	-	-
Plan equipment utilization (for production of traditional snack and savoury)	7	18	-	-
<b>PC7.</b> ensure the working and performance of each equipment required for process	2	5	-	-
<b>PC8.</b> calculate the process time for effective utilization of machineries	2	5	-	-
<b>PC9.</b> plan batch size considering full capacity utilization of machineries	1	2	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC10.</b> plan to utilize machineries for multiple products without affecting the quality of the finished products, and to optimize production and saving energy	1	2	-	-
<b>PC11.</b> allotting responsibilities/ work to the assistants and helpers	1	4	-	-
Organize raw material and equipment (for production of traditional snack and savoury)	11	19	-	-
PC12. refer process chart/ product flow chart/formulation chart for product(s) produced	1	2	-	-
<b>PC13.</b> weigh the raw materials required for the batch	1.5	2.5	-	-
<b>PC14.</b> check the conformance of raw material quality to organisation standards, through physical analysis and by referring the quality analysis report from the supplier / internal lab analysis report	2	5	-	-
<b>PC15.</b> change/fix sieves in pulveriser, sharpen and change blades of vegetable slicer/cutter, clean and install metal disks containing openings of various shape in mixer of extruder and attach blades in the extruder to cut of extruded dough	3	4	-	-
<b>PC16.</b> ensure working and performance of required machineries and tools	3	4	-	-
<b>PC17.</b> keep the tools accessible to attend repairs/faults in case of breakdown	0.5	1.5	-	-
NOS Total	35	65	-	-







# **National Occupational Standards (NOS) Parameters**

NOS Code	FIC/N8502
NOS Name	Prepare for production of snack and savoury
Sector	Food Processing
Sub-Sector	Packaged Foods
Occupation	Processing
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	30/09/2021
Next Review Date	30/07/2024
<b>Deactivation Date</b>	30/07/2024
NSQC Clearance Date	30/09/2021







# FIC/N8503: Prepare raw material for snack and savoury

#### **Description**

This OS unit is about preparing raw materials for various snack and savories using various machineries as per the specifications and standards of the organization

#### **Elements and Performance Criteria**

#### Receive, clean and grind raw materials

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

- **PC1.** receive raw materials (legumes, pulses, dal, oil seeds, spices, vegetables etc) from supplier and check weight
- **PC2.** check quality of raw materials through physical parameters like appearance, colour, texture, maturity (in case of agricultural produce), check for infestation, moulds, foreign matter, rodent hairs etc (in case of food grains, oilseeds, spices etc)
- **PC3.** start de-stoner machine and dump raw materials (rice, corn, bengal gram, peanut, spices etc) in the feed hopper, place containers below discharge outlet and collect the de-stoned material, discard waste following sop
- **PC4.** start pulveriser, dump raw materials (grains, spices etc) into the feed hopper of the pulveriser, check the milled materials for fineness and turn knobs to adjust clearance between stones/plates to achieve required fineness, collect the milled material (flour/powder) from the discharge outlet
- **PC5.** adjust controls like speed/vibration of sieving machine and start machine, dump milled materials on the sieve to obtain flour/powder of uniform fineness, collect sieved material from discharge outlet and
- **PC6.** transfer ground and sieved raw material to production area for further processing or transfer to storage area and store maintaining storage conditions until further processing

#### Wash, sort and slice vegetables

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

- **PC7.** wash and rinse the vegetables manually to remove soil (in batch operation) (or) pump water into the vegetable washing tank and control water level, dump vegetables into the washing tank for washing (in continuous process)
- **PC8.** start ladder conveyor to lift the vegetables from the washing tank and to transfer on the washing line conveyor
- **PC9.** open valves of the high pressure spraying system for fresh water and adjust pressure to spray water on vegetables for rinsing
- **PC10.** allow vegetables to pass through inspection line conveyor for sorting, visually inspect and remove damaged, blemished and rotten vegetables and discard following sop
- **PC11.** transfer sorted vegetables into the peeling machine/peeling line conveyor, start machine and adjust speed to peel vegetables, check the peeled vegetables
- **PC12.** start pump water or open valve of spraying system to wash the peeled vegetables
- **PC13.** load vegetables in the cutter/slicer machine manually (or) adjust and control speed of slicing line conveyor to cut vegetables to required size, start machine to slice







**PC14.** start pump water or open valve of spraying system and adjust pressure to spray water to wash sliced vegetables (like potato, banana etc), collect from the discharge chute

#### Soak legumes, pulses, nuts, and grind nuts

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

- PC15. open valves or start pump to fill water in washing tank/container
- **PC16.** weigh legumes (channa, green peas etc), pulses (like moong dhal), nuts (like cashew, almond etc) required for batch and transfer into washing tank/ container
- **PC17.** wash and drain washed water manually (or) start revolving blades/stirrer to wash legume and open valves to drain washed water
- **PC18.** transfer washed legume, pulses and nuts manually or mechanically into soaking tank/container, open valves or start pump to add water into soaking tank, allow to stand for specified time following sop for soaking
- PC19. open valves of soaking tank after specified time to drain water
- **PC20.** transfer soaked nuts into grinder and add measured quantity of liquid (water/milk), set grinder speed and start to grind nuts to required fineness
- **PC21.** check/feel batter and ensure its fineness/consistency meets specifications, stop machine and transfer batter to container

#### Prepare evaporated milk(khoya)

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

- **PC22.** open valves or start pump to transfer measured volume of milk into container/steam jacketed kettle or evaporator
- **PC23.** light burner (or) adjust controls to set temperature, pressure etc of steam jacketed kettle or evaporator, open valves to allow steam to heat milk, stir manually or set speed of the agitator to stir milk until moisture evaporates
- **PC24.** check the consistency of evaporated milk (khoya), open pump to circulate water to cool khoya, scoop and transfer to container
- **PC25.** transfer container to storage room and store maintaining suitable temperature until further processing

#### Prepare sugar syrup

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

- **PC26.** open valves or start pump to transfer measured quantity of water into steam jacketed kettle/container, observe water gauge or designated mark for filled quantity
- **PC27.** set controls like temperature, pressure etc and open valves to allow steam to heat water (or) light burner to heat water, add measured quantity of sugar into water and heat solution to prepare sugar syrup
- **PC28.** set speed of stirrer and start to stir sugar syrup (or) stir manually, observe pressure and temperature gauge and regulate steam to maintain temperature
- **PC29.** check sugar syrup using refractometer equipment to conform its specifications to standards, open valves to circulate water to cool syrup (if required)

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

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







- **KU2.** types of raw materials required for various products produce in the organisation
- **KU3.** process and procedures for preparing raw materials for production of various products
- **KU4.** job responsibilities/duties and standard operating procedures relavant to prepartaion of raw materials for production
- **KU5.** internal processes like procurement, store management, inventory management, quality management and key contact points for query resolution
- **KU6.** provision of wages, working hours as per organisation policy
- KU7. food safety and hygiene standards followed
- **KU8.** types of raw materials (milk, grains, fruits and vegetables, nuts and oilseeds etc) and products obtained from each raw material
- **KU9.** methods of handling all types of raw materials
- **KU10.** preparation of different raw materials for production of various products
- **KU11.** production process, process parameters and product formulation for various products produced
- **KU12.** types of snack and savoury processing machineries and machineries used in the organisation
- KU13. handling all types of machineries
- **KU14.** maintenance of machineries, equipments and tools
- **KU15.** quality parameters, basic food microbiology and quality assessment based on physical parameters
- **KU16.** types and categories of packaging materials and types of packaging machineries
- **KU17.** storage procedures for raw materials, packaging materials and finished goods
- KU18. cleaning procedures like CIP and COP
- KU19. knowledge on sanitizers and disinfectants and its handling and storing methods
- **KU20.** food laws and regulations on product, packaging and labelling
- KU21. food safety and hygiene
- **KU22.** good manufacturing practice (GMP)
- KU23. HACCP

#### **Generic Skills (GS)**

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

- **GS1.** note the information communicated
- **GS2.** note the raw materials used for production and the finished products produced
- **GS3.** note the readings of the process parameters and provide necessary information to fill the process chart
- **GS4.** note down observations (if any) related to the process
- **GS5.** write information documents to internal departments/ internal teams
- **GS6.** note down the data for online ERP or as per applicability in the organization
- **GS7.** read and interpret the process required for producing various types of products
- GS8. read and interpret and process flowchart for all products produced







- **GS9.** read equipment manuals and process documents to understand the equipments operation and process requirement
- GS10. read internal information documents sent by internal teams
- **GS11.** discuss task lists, schedules and activities
- **GS12.** communicate with team members
- GS13. question in order to understand the nature of the problem and to clarify queries
- **GS14.** attentively listen and comprehend the information given by the speaker
- **GS15.** communicate clearly on the issues being faced
- **GS16.** analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue
- **GS17.** handle issues in case the manager is not available (as per the authority matrix defined by the organization)
- GS18. plan and organize the work order and jobs received
- GS19. organize raw materials and packaging materials required for all products
- **GS20.** plan and prioritize the work based on the instructions received
- **GS21.** plan to utilise time and equipment's effectively
- GS22. organize all process/ equipment manuals so as to access information easily
- **GS23.** support the manager in scheduling tasks for helper(s)
- **GS24.** understand customer requirements and their priority and respond as per their needs
- **GS25.** support manager in solving problems by detailing out problems
- **GS26.** discuss the possible solutions with the manager for problem solving
- **GS27.** apply domain information about maintenance processes and technical knowledge about tools and equipment
- **GS28.** use common sense and make judgments on day to day basis
- **GS29.** use reasoning skills to identify and resolve basic problems
- **GS30.** use intuition to detect any potential problems which could arise during operations
- **GS31.** use acquired knowledge of the process for identifying and handling issues







#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Receive, clean and grind raw materials	6.5	13.5	-	-
<b>PC1</b> . receive raw materials (legumes, pulses, dal, oil seeds, spices, vegetables etc) from supplier and check weight	0.5	1.5	-	-
<b>PC2.</b> check quality of raw materials through physical parameters like appearance, colour, texture, maturity (in case of agricultural produce), check for infestation, moulds, foreign matter, rodent hairs etc (in case of food grains, oilseeds, spices etc)	2	2	-	-
PC3. start de-stoner machine and dump raw materials (rice, corn, bengal gram, peanut, spices etc) in the feed hopper, place containers below discharge outlet and collect the de-stoned material, discard waste following sop	1	3	-	-
<b>PC4.</b> start pulveriser, dump raw materials (grains, spices etc) into the feed hopper of the pulveriser, check the milled materials for fineness and turn knobs to adjust clearance between stones/plates to achieve required fineness, collect the milled material (flour/powder) from the discharge outlet	1	3	-	-
<b>PC5.</b> adjust controls like speed/vibration of sieving machine and start machine, dump milled materials on the sieve to obtain flour/powder of uniform fineness, collect sieved material from discharge outlet and	1	3	-	-
<b>PC6.</b> transfer ground and sieved raw material to production area for further processing or transfer to storage area and store maintaining storage conditions until further processing	1	1	-	-
Wash,sort and slice vegetables	6.5	13.5	-	-
<b>PC7.</b> wash and rinse the vegetables manually to remove soil (in batch operation) (or) pump water into the vegetable washing tank and control water level, dump vegetables into the washing tank for washing (in continuous process)	1	2	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC8.</b> start ladder conveyor to lift the vegetables from the washing tank and to transfer on the washing line conveyor	0.5	1.5	-	-
<b>PC9.</b> open valves of the high pressure spraying system for fresh water and adjust pressure to spray water on vegetables for rinsing	0.5	1.5	-	-
<b>PC10.</b> allow vegetables to pass through inspection line conveyor for sorting, visually inspect and remove damaged, blemished and rotten vegetables and discard following sop	1.5	1.5	-	-
<b>PC11.</b> transfer sorted vegetables into the peeling machine/peeling line conveyor, start machine and adjust speed to peel vegetables, check the peeled vegetables	1	2	-	-
<b>PC12.</b> start pump water or open valve of spraying system to wash the peeled vegetables	0.5	1.5	-	-
<b>PC13.</b> load vegetables in the cutter/slicer machine manually (or) adjust and control speed of slicing line conveyor to cut vegetables to required size, start machine to slice	1	2	-	-
<b>PC14.</b> start pump water or open valve of spraying system and adjust pressure to spray water to wash sliced vegetables (like potato, banana etc), collect from the discharge chute	0.5	1.5	-	-
Soak legumes, pulses, nuts, and grind nuts	6.5	13.5	-	-
PC15. open valves or start pump to fill water in washing tank/container	0.5	1.5	-	-
<b>PC16.</b> weigh legumes (channa, green peas etc), pulses (like moong dhal), nuts (like cashew, almond etc) required for batch and transfer into washing tank/ container	0.5	1.5	-	-
PC17. wash and drain washed water manually (or) start revolving blades/stirrer to wash legume and open valves to drain washed water	0.5	1.5	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC18.</b> transfer washed legume, pulses and nuts manually or mechanically into soaking tank/container, open valves or start pump to add water into soaking tank, allow to stand for specified time following sop for soaking	2	3	-	-
<b>PC19.</b> open valves of soaking tank after specified time to drain water	0.5	1.5	-	-
<b>PC20.</b> transfer soaked nuts into grinder and add measured quantity of liquid (water/milk), set grinder speed and start to grind nuts to required fineness	2	3	-	-
<b>PC21.</b> check/feel batter and ensure its fineness/consistency meets specifications, stop machine and transfer batter to container	0.5	1.5	-	-
Prepare evaporated milk(khoya)	7.5	12.5	-	-
PC22. open valves or start pump to transfer measured volume of milk into container/steam jacketed kettle or evaporator	1	2	-	-
<b>PC23.</b> light burner (or) adjust controls to set temperature, pressure etc of steam jacketed kettle or evaporator, open valves to allow steam to heat milk, stir manually or set speed of the agitator to stir milk until moisture evaporates	4	6	-	-
<b>PC24.</b> check the consistency of evaporated milk (khoya), open pump to circulate water to cool khoya, scoop and transfer to container	2	3	-	-
<b>PC25.</b> transfer container to storage room and store maintaining suitable temperature until further processing	0.5	1.5	-	-
Prepare sugar syrup	8	12	-	-
<b>PC26.</b> open valves or start pump to transfer measured quantity of water into steam jacketed kettle/container, observe water gauge or designated mark for filled quantity	2	3	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC27.</b> set controls like temperature, pressure etc and open valves to allow steam to heat water (or) light burner to heat water, add measured quantity of sugar into water and heat solution to prepare sugar syrup	2	3	-	-
<b>PC28.</b> set speed of stirrer and start to stir sugar syrup (or) stir manually, observe pressure and temperature gauge and regulate steam to maintain temperature	2	3	-	-
<b>PC29.</b> check sugar syrup using refractometer equipment to conform its specifications to standards, open valves to circulate water to cool syrup (if required)	2	3	-	-
NOS Total	35	65	-	-







# **National Occupational Standards (NOS) Parameters**

NOS Code	FIC/N8503
NOS Name	Prepare raw material for snack and savoury
Sector	Food Processing
Sub-Sector	Packaged Foods
Occupation	Processing
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	30/09/2021
Next Review Date	30/07/2024
<b>Deactivation Date</b>	30/07/2024
NSQC Clearance Date	30/09/2021







## FIC/N8504: Prepare snack and savoury products

#### **Description**

This OS unit is about preparing various snack and savories from different raw materials using various machineries as per the specifications and standards of the organization

#### **Elements and Performance Criteria**

#### Prepare snack

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

- **PC1.** weigh prepared raw material (besan flour, cashew/almond batter, maida, ghee/oil, nuts, sliced/grated vegetables like pumpkin, carrot etc) required for preparing various snack
- **PC2.** add measured quantity of ingredients into hot sugar syrup in sequence following formulation in cooking kettle/steam jacketed kettle
- **PC3.** set controls like temperature, pressure, time etc of steam jacketed kettle, open valves to allow steam (or) light burner to cook ingredients, stir manually or set controls like speed of stirrer to stir mechanically
- **PC4.** observe pressure gauges and adjust control to maintain process parameters and ensure cooking to required consistency, check products through physical parameters like colour, texture, sweetness etc
- **PC5.** transfer product into trays/containers, switch on fan and adjust controls to set speed to cool product to required temperature, cut set product to desired shape and size using knives/cutter
- **PC6.** transfer prepared material (khoya) and other raw materials (maida) into the kneader in sequence following sop, set speed of the stirrer and start machine to make soft dough, shape dough manually to required shape
- **PC7.** transfer measured quantity of oil into fryer, light burner or set temperature and push buttons to start electrical fryer to achieve required temperature
- **PC8.** add shaped balls into heated oil to fry, stir continuously and ensure not to under cook or over fry, check appearance, colour and remove fried snack from oil
- **PC9.** transfer measured quantity of hot/warm sugar syrup into container, add fried snack (like gulab jamoon), allow to soak for specified time following sop
- **PC10.** transfer measured quantity of sugar syrup into cooking kettle, set pressure and open valves to allow steam to heat sugar syrup in the kettle
- **PC11.** set control parameters like temperature, time etc of cooking kettle, add shaped dough in hot syrup and cook, check the product through physical parameters like appearance, colour, texture etc, remove cooked product from syrup
- **PC12.** transfer cooked product (like rasgulla, rasmalai etc) into sugar syrup or coloured sweetened milk with sliced nuts, allow finished product to soak for specified time and store maintaining storage temperature
- **PC13.** in continuous process, load dough in feed hopper of continuous snack making machine, adjust controls to set speed of the conveyors, dough cutter to cut dough into specified weight, movement of dough shaper to shape dough to required shape, set temperature of fryer (in case of oil) /cooking tank (in case of sugar syrup)







- **PC14.** start machine, observe cutting of dough to required weight, shaping of dough to required shape, frying/cooking of dough, dropping of fried snack into soaking tank, allow to soak for specified time following sop
- **PC15.** check the quality of prepared products through physical parameters like appearance, colour, texture etc
- **PC16.** count or weigh finished product and arrange/fill in packaging material, close with lid or seal using sealing machine and label, check weight of packedproduct (or) set automatic packaging machine, labeling machine and date coding machine to pack finished products
- **PC17.** sample packed product and transfer to lab for quality analysis to ensure its conformance to standards, store snack products maintaining storage conditions following SOP

#### Canning of snack

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

- PC18. feed flattened cans into can forming machine and operate machine to form cans
- **PC19.** feed product and sugar syrup in the filling machine, set filling machine for weight and volume, start machine for solid and sugar syrup filling
- PC20. place lid on filled cans and operate seaming machine to expel air and seal filled cans
- **PC21.** load cans in retort and close, set pressure and time of retort, open valves to admit steam to sterilize canned product
- **PC22.** unload cans from retort, load in cooling tunnel, set controls like conveyor speed, water pressure of water spraying system to spray water on hot cans to cool,
- **PC23.** set controls like temperature, air flow and conveyor speed of drying tunnel, start machine to allow cooled cans to pass through drying tunnel to dry water on cans
- **PC24.** label cans and transfer to storage area, store product maintaining storage conditions following SOP

#### Prepare savoury

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

- **PC25.** measure specified quantity of raw materials (like flour, salt, spice powder etc) and water into container following sop and mix manually (or) transfer ingredients into mixer/ kneader, set speed and start machine to mix ingredients to prepare batter/dough, check the quality of batter/dough periodically for consistency, transfer into container
- **PC26.** adjust controls to set required pressure, temperature etc of the extruder, start machine, feed dough/moistened flour and extrude to required shaped, maintain control parameters for continuous and uniform extrusion, observe extruded dough/ snack
- **PC27.** feed dough in the hopper of sheeting machine, set control parameters and start machine, observe sheeting of dough and adjust controls to achieve required thickness, start moulding / cutting machine to mould/cut dough to required shape
- **PC28.** start pump to transfer measured quantity of oil into frying kettle, light burner and adjust controls to heat oil to specified temperature
- **PC29.** add sliced vegetable/extruded or shaped dough into oil directly or by placing in wire basket and lowering it in hot oil (or) pour batter through ladle with holes into heated oil
- **PC30.** stir continuously for uniform frying, check if it is under/over fried, adjust controls to maintain temperature for uniform frying, remove fried snack from oil, ensure fried products meet organisation standards







- **PC31.** transfer fried product into oil draining machine, set rotation speed and start machine, collect excess oil from oil discharge outlet, check product to ensure excess oil has been removed, transfer product to container
- **PC32.** in continuous process, load dough/peeled vegetables in feed hopper of continuous namkeen/savoury making machine, adjust controls to set pressure for extrusion of dough, slicing machine for slicing vegetables, speed of the conveyors, temperature of fryer etc,
- **PC33.** start machine, observe extrusion of dough to required shape, cutting of shaped dough, vegetable slicing, dropping of dough/vegetable into fryer, frying of dough/vegetable, fried product coming out of fryer
- **PC34.** check if product is under/over fried and adjust controls to maintain temperature, check finished product through physical parameters like appearance, colour, texture etc, collect fried product in container
- **PC35.** dump weighed product into the drum of blender machine, set machine for speed/drum rotation and start machine, add measured quantity of seasoning for blending with product
- **PC36.** stop machine after specified time, check seasoned product for conformance to standards, tilt drum to dump material into container, transfer product for packaging
- **PC37.** load packaging material in the packaging machine, set packing volume, set date coding machine for batch number, date of manufacture, date of expiry etc, load savory products into the feed hopper of packaging machine
- **PC38.** start machine to pack product, check weight of packed product at regular intervals for conformance to weight standards (or) manually fill weighed quantity of snack product in packaging material, seal and label pack, sample and transfer to quality lab for analysis
- **PC39.** form cartons, pack primary packed product in cartons and transfer to storage area manually or mechanically and store following organisation standards
- PC40. report discrepancies/concerns to department supervisor for immediate action

#### Post production cleaning and regular maintenance of equipments

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

- **PC41.** clean work area, machineries, equipment and tools using recommended cleaning agents and sanitizers
- **PC42.** attend minor repairs/faults of all machines (if any)
- **PC43.** ensure periodic (daily/weekly/monthly/quarterly/half yearly/annual) maintenance of all machines and equipment following the sop or following suppliers instructions/manuals

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** organization standards, process standards and procedures followed in the organisation
- **KU2.** types of products produced by the organisation
- KU3. code of business conduct
- **KU4.** dress code to be followed
- **KU5.** job responsibilities/duties and standard operating procedures relavant to prodution process
- **KU6.** internal processes like procurement, store management, inventory management, quality management and key contact points for query resolution
- **KU7.** provision of wages, working hours, accident compensation as per organisation policy







- **KU8.** food safety and hygiene standards followed
- **KU9.** types of raw materials (milk, grains, fruits and vegetables, nuts and oilseeds etc) and products obtained from each raw material
- **KU10.** methods of handling all types of raw materials
- **KU11.** preparation of different raw materials for production of various products
- **KU12.** production process, process parameters and product formulation for various products produced
- **KU13.** types of snack and savoury processing machineries and machineries used in the organisation
- KU14. handling all types of machineries
- **KU15.** maintenance of machineries, equipments and tools
- **KU16.** quality parameters, basic food microbiology and quality assessment based on physical parameters
- **KU17.** types and categories of packaging materials and types of packaging machineries
- **KU18.** storage procedures for raw materials, packaging materials and finished goods
- **KU19.** cleaning procedures like clean-in-place (CIP and clean-out-place (COP)
- **KU20.** knowledge on sanitizers and disinfectants and its handling and storing methods
- **KU21.** food laws and regulations on product, packaging and labelling
- KU22. food safety and hygiene
- **KU23.** good manufacturing practice (GMP)
- **KU24.** hazard analysis and critical control point (HACCP)

#### **Generic Skills (GS)**

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

- **GS1.** note the information communicated
- **GS2.** note the raw materials used for production and the finished products produced
- **GS3.** note the readings of the process parameters and provide necessary information to fill the process chart
- **GS4.** note down observations (if any) related to the process
- **GS5.** write information documents to internal departments/ internal teams
- **GS6.** note down the data for online ERP or as per applicability in the organization
- **GS7.** read and interpret the process required for producing various types of products
- **GS8.** read and interpret and process flowchart for all products produced
- **GS9.** read equipment manuals and process documents to understand the equipments operation and process requirement
- **GS10.** read internal information documents sent by internal teams
- GS11. discuss task lists, schedules and activities
- **GS12.** effectively communicate with team members
- **GS13.** question in order to understand the nature of the problem and to clarify queries
- **GS14.** attentively listen and comprehend the information given by the speaker







- GS15. communicate clearly on the issues being faced
- **GS16.** analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue
- **GS17.** handle issues in case the manager is not available (as per the authority matrix defined by the organization)
- **GS18.** plan and organize the work order and jobs received
- GS19. organize raw materials and packaging materials required for all products
- GS20. plan and prioritize the work based on the instructions received
- **GS21.** plan to utilise time and equipment's effectively
- GS22. organize all process/ equipment manuals so as to access information easily
- **GS23.** support the manager in scheduling tasks for helper(s)
- **GS24.** understand customer requirements and their priority and respond as per their needs
- **GS25.** support manager in solving problems by detailing out problems
- **GS26.** discuss the possible solutions with the manager for problem solving
- **GS27.** apply domain information about maintenance processes and technical knowledge about tools and equipment
- **GS28.** use common sense and make judgments on day to day basis
- **GS29.** use reasoning skills to identify and resolve basic problems
- **GS30.** use intuition to detect any potential problems which could arise during operations
- **GS31.** use acquired knowledge of the process for identifying and handling issues







#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Prepare snack	12.5	27.5	-	-
<b>PC1.</b> weigh prepared raw material (besan flour, cashew/almond batter, maida, ghee/oil, nuts, sliced/grated vegetables like pumpkin, carrot etc) required for preparing various snack	0.5	0.5	-	-
PC2. add measured quantity of ingredients into hot sugar syrup in sequence following formulation in cooking kettle/steam jacketed kettle	0.5	1.5	-	-
<b>PC3.</b> set controls like temperature, pressure, time etc of steam jacketed kettle, open valves to allow steam (or) light burner to cook ingredients, stir manually or set controls like speed of stirrer to stir mechanically	1	2	-	-
<b>PC4.</b> observe pressure gauges and adjust control to maintain process parameters and ensure cooking to required consistency, check products through physical parameters like colour, texture, sweetness etc	1.5	1.5	-	-
<b>PC5.</b> transfer product into trays/containers, switch on fan and adjust controls to set speed to cool product to required temperature, cut set product to desired shape and size using knives/ cutter	0.5	1.5	-	-
<b>PC6.</b> transfer prepared material (khoya) and other raw materials (maida) into the kneader in sequence following sop, set speed of the stirrer and start machine to make soft dough, shape dough manually to required shape	1	2	-	-
<b>PC7.</b> transfer measured quantity of oil into fryer, light burner or set temperature and push buttons to start electrical fryer to achieve required temperature	1	2	-	-
<b>PC8.</b> add shaped balls into heated oil to fry, stir continuously and ensure not to under cook or over fry, check appearance, colour and remove fried snack from oil	1	2	-	-
<b>PC9.</b> transfer measured quantity of hot/warm sugar syrup into container, add fried snack (like gulab jamoon), allow to soak for specified time following sop	0.5	1.5	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC10.</b> transfer measured quantity of sugar syrup into cooking kettle, set pressure and open valves to allow steam to heat sugar syrup in the kettle	0.5	1.5	-	-
<b>PC11.</b> set control parameters like temperature, time etc of cooking kettle, add shaped dough in hot syrup and cook, check the product through physical parameters like appearance, colour, texture etc, remove cooked product from syrup	1	2	-	-
<b>PC12.</b> transfer cooked product (like rasgulla, rasmalai etc) into sugar syrup or coloured sweetened milk with sliced nuts, allow finished product to soak for specified time and store maintaining storage temperature	0.5	1.5	-	-
<b>PC13.</b> in continuous process, load dough in feed hopper of continuous snack making machine, adjust controls to set speed of the conveyors, dough cutter to cut dough into specified weight, movement of dough shaper to shape dough to required shape, set temperature of fryer (in case of oil) /cooking tank (in case of sugar syrup)	1	2	-	-
<b>PC14.</b> start machine, observe cutting of dough to required weight, shaping of dough to required shape, frying/cooking of dough, dropping of fried snack into soaking tank, allow to soak for specified time following sop	0.5	1.5	-	-
<b>PC15.</b> check the quality of prepared products through physical parameters like appearance, colour, texture etc	0.5	1.5	-	-
<b>PC16.</b> count or weigh finished product and arrange/fill in packaging material, close with lid or seal using sealing machine and label, check weight of packedproduct (or) set automatic packaging machine, labeling machine and date coding machine to pack finished products	0.5	1.5	-	-
<b>PC17.</b> sample packed product and transfer to lab for quality analysis to ensure its conformance to standards, store snack products maintaining storage conditions following SOP	0.5	1.5	-	-
Canning of snack	4	6	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC18.</b> feed flattened cans into can forming machine and operate machine to form cans	0.5	0.5	-	-
<b>PC19.</b> feed product and sugar syrup in the filling machine, set filling machine for weight and volume, start machine for solid and sugar syrup filling	0.5	0.5	-	-
<b>PC20.</b> place lid on filled cans and operate seaming machine to expel air and seal filled cans	0.5	0.5	-	-
<b>PC21.</b> load cans in retort and close, set pressure and time of retort, open valves to admit steam to sterilize canned product	0.5	1.5	-	-
<b>PC22.</b> unload cans from retort, load in cooling tunnel, set controls like conveyor speed, water pressure of water spraying system to spray water on hot cans to cool,	0.5	1.5	-	-
<b>PC23.</b> set controls like temperature, air flow and conveyor speed of drying tunnel, start machine to allow cooled cans to pass through drying tunnel to dry water on cans	1	1	-	-
<b>PC24.</b> label cans and transfer to storage area, store product maintaining storage conditions following SOP	0.5	0.5	-	-
Prepare savoury	16.5	28.5	-	-
PC25. measure specified quantity of raw materials (like flour, salt, spice powder etc) and water into container following sop and mix manually (or) transfer ingredients into mixer/ kneader, set speed and start machine to mix ingredients to prepare batter/dough, check the quality of batter/dough periodically for consistency, transfer into container	1.5	1.5	-	-
<b>PC26.</b> adjust controls to set required pressure, temperature etc of the extruder, start machine, feed dough/moistened flour and extrude to required shaped, maintain control parameters for continuous and uniform extrusion, observe extruded dough/ snack	1.5	1.5	-	-
<b>PC27.</b> feed dough in the hopper of sheeting machine, set control parameters and start machine, observe sheeting of dough and adjust controls to achieve required thickness, start moulding / cutting machine to mould/cut dough to required shape	1	2	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC28.</b> start pump to transfer measured quantity of oil into frying kettle, light burner and adjust controls to heat oil to specified temperature	1	2	-	-
<b>PC29.</b> add sliced vegetable/extruded or shaped dough into oil directly or by placing in wire basket and lowering it in hot oil (or) pour batter through ladle with holes into heated oil	1	2	-	-
<b>PC30.</b> stir continuously for uniform frying, check if it is under/over fried, adjust controls to maintain temperature for uniform frying, remove fried snack from oil, ensure fried products meet organisation standards	1	2	-	-
<b>PC31.</b> transfer fried product into oil draining machine, set rotation speed and start machine, collect excess oil from oil discharge outlet, check product to ensure excess oil has been removed, transfer product to container	1	2	-	-
PC32. in continuous process, load dough/peeled vegetables in feed hopper of continuous namkeen/savoury making machine, adjust controls to set pressure for extrusion of dough, slicing machine for slicing vegetables, speed of the conveyors, temperature of fryer etc,	1	2	-	-
<b>PC33.</b> start machine, observe extrusion of dough to required shape, cutting of shaped dough, vegetable slicing, dropping of dough/vegetable into fryer, frying of dough/vegetable, fried product coming out of fryer	1	2	-	-
<b>PC34.</b> check if product is under/over fried and adjust controls to maintain temperature, check finished product through physical parameters like appearance, colour, texture etc, collect fried product in container	1	2	-	-
<b>PC35.</b> dump weighed product into the drum of blender machine, set machine for speed/drum rotation and start machine, add measured quantity of seasoning for blending with product	1	2	-	-
<b>PC36.</b> stop machine after specified time, check seasoned product for conformance to standards, tilt drum to dump material into container, transfer product for packaging	1	2	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC37.</b> load packaging material in the packaging machine, set packing volume, set date coding machine for batch number, date of manufacture, date of expiry etc, load savory products into the feed hopper of packaging machine	1	2	-	-
<b>PC38.</b> start machine to pack product, check weight of packed product at regular intervals for conformance to weight standards (or) manually fill weighed quantity of snack product in packaging material, seal and label pack, sample and transfer to quality lab for analysis	1	2	-	-
<b>PC39.</b> form cartons, pack primary packed product in cartons and transfer to storage area manually or mechanically and store following organisation standards	1	1	-	-
<b>PC40.</b> report discrepancies/concerns to department supervisor for immediate action	0.5	0.5	-	-
Post production cleaning and regular maintenance of equipments	2	3	-	-
<b>PC41.</b> clean work area, machineries, equipment and tools using recommended cleaning agents and sanitizers	0.5	1.5	-	-
<b>PC42.</b> attend minor repairs/faults of all machines (if any)	1	1	-	-
PC43. ensure periodic (daily/weekly/monthly/quarterly/half yearly/annual) maintenance of all machines and equipment following the sop or following suppliers instructions/manuals	0.5	0.5	-	-
NOS Total	35	65	-	-







# **National Occupational Standards (NOS) Parameters**

NOS Code	FIC/N8504
NOS Name	Prepare snack and savoury products
Sector	Food Processing
Sub-Sector	Packaged Foods
Occupation	Processing
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	30/09/2021
Next Review Date	30/07/2024
<b>Deactivation Date</b>	30/07/2024
NSQC Clearance Date	30/09/2021







# FIC/N8505: Complete documentation and record keeping related to making traditional snack and savoury

#### **Description**

This OS unit is about documenting and maintaining records on raw materials, process and finished products related to making of traditional snack and savoury

#### **Elements and Performance Criteria**

Document and maintain records of raw materials (related to traditional snack and savoury)

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

- **PC1.** document and maintain record on raw materials and packaging material details like type of raw materials and packaging material, vendor/supplier details, receiving date/ date of manufacture, expiry date, supplier quality document, quality parameters of all raw materials, internal quality analysis report etc, and in case of agricultural produce type and variety, grown area, quantity, receiving date, storage condition etc, as per organisation standards
- **PC2.** document and maintain record on observations (if any) related to raw materials, packaging materials
- **PC3.** load the raw materials details in erp for future reference
- **PC4.** verify the documents and track from finished product to raw materials, in case of quality concerns and during quality management system audits

Document and maintain records of production schedule and process parameters( related to traditional snack and savoury)

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

- **PC5.** document and maintain record on production plan with details like the product details, production sequence, equipments and machinery details, efficiency and capacity utilization of equipment
- **PC6.** document and maintain records on process details like type or of raw material used, process parameters (like temperature, pressure, time etc as applicable) for entire production in process chart or production log for all products produced
- **PC7.** document and maintain records on batch size, production yield, and wastage of raw materials, energy utilization and final products produced
- **PC8.** document and mmaintain record of on observations (if any) or deviations related to process and production
- **PC9.** load the production plan and process details in erp for future reference
- **PC10.** verify documents and track from finished product to ingredients, in case of quality concerns and for quality management system audits

Document and maintain records of finished products (related to traditional snack and savoury)

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

- PC11. document and maintain records on the types of finished products produced
- **PC12.** document and maintain records on the finished products details like batch number, time of packing, date of manufacture, date of expiry, other label details, primary, secondary and tertiary packaging materials for all finished products, storage conditions etc, as per organisation standards







- **PC13.** document and maintain record on observations or deviations (if any) related to finished products
- **PC14.** load the finished product details in erp for future reference
- **PC15.** verify the documents and track from finished product to ingredients, in case of quality concerns and for quality management system audits

## **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** organization standards and procedures followed for documentation and record keeping
- **KU2.** marks and accreditations of the organisation
- **KU3.** job responsibilities/duties for documentaion and records management in the organisation
- **KU4.** ERP (enterprise resource planning) software system used/followed in the organisation
- **KU5.** documentation system followed in the organization like, production chart, process chart and finished products chart
- **KU6.** details to be recorded on raw materials and finished products
- **KU7.** details to be recorded and maintained on production plan and process parameters
- **KU8.** methods to record and maintain records on observations (if any) related to raw materials, process and finished products
- **KU9.** methods to track back the record from finished product to raw material
- **KU10.** basic computer knowledge
- **KU11.** entering the details in ERP system followed by the organisation

#### **Generic Skills (GS)**

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

- **GS1.** note the information communicated
- **GS2.** note the raw materials used for production and the finished products produced
- **GS3.** note the readings of the process parameters and provide necessary information to fill the process chart
- **GS4.** note down observations (if any) related to the process
- **GS5.** write information documents to internal departments/ internal teams
- **GS6.** note down the data for online ERP or as per applicability in the organization
- **GS7.** read and interpret the process required for producing various types of products
- **GS8.** read and interpret and process flowchart for all products produced
- **GS9.** read equipment manuals and process documents to understand the equipments operation and process requirement
- **GS10.** read internal information documents sent by internal teams
- **GS11.** discuss task lists, schedules and activities
- **GS12.** effectively communicate with team members
- **GS13.** question in order to understand the nature of the problem and to clarify queries







- GS14. attentively listen and comprehend the information given by the speaker
- GS15. communicate clearly on the issues being faced
- **GS16.** analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue
- **GS17.** handle issues in case the manager is not available (as per the authority matrix defined by the organization)
- GS18. plan and organize the work order and jobs received
- GS19. organize raw materials and packaging materials required for all products
- GS20. plan and prioritize the work based on the instructions received
- **GS21.** plan to utilise time and equipment's effectively
- GS22. organize all process/ equipment manuals so as to access information easily
- **GS23.** support the manager in scheduling tasks for helper(s)
- **GS24.** understand customer requirements and their priority and respond as per their needs
- GS25. support manager in solving problems by detailing out problems
- **GS26.** discuss the possible solutions with the manager for problem solving
- **GS27.** apply domain information about maintenance processes and technical knowledge about tools and equipment
- GS28. use common sense and make judgments on day to day basis
- **GS29.** use reasoning skills to identify and resolve basic problems
- **GS30.** use intuition to detect any potential problems which could arise during operations
- **GS31.** use acquired knowledge of the process for identifying and handling issues







## **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Document and maintain records of raw materials (related to traditional snack and savoury)	15	10	-	-
PC1. document and maintain record on raw materials and packaging material details like type of raw materials and packaging material, vendor/supplier details, receiving date/ date of manufacture, expiry date, supplier quality document, quality parameters of all raw materials, internal quality analysis report etc, and in case of agricultural produce type and variety, grown area, quantity, receiving date, storage condition etc, as per organisation standards	6	4	-	-
<b>PC2.</b> document and maintain record on observations (if any) related to raw materials, packaging materials	3	2	-	-
<b>PC3.</b> load the raw materials details in erp for future reference	3	2	-	-
<b>PC4.</b> verify the documents and track from finished product to raw materials, in case of quality concerns and during quality management system audits	3	2	-	-
Document and maintain records of production schedule and process parameters( related to traditional snack and savoury)	30	20	-	-
<b>PC5.</b> document and maintain record on production plan with details like the product details, production sequence, equipments and machinery details, efficiency and capacity utilization of equipment	6	4	-	-
<b>PC6.</b> document and maintain records on process details like type or of raw material used, process parameters (like temperature, pressure, time etc as applicable) for entire production in process chart or production log for all products produced	9	6	-	-
<b>PC7.</b> document and maintain records on batch size, production yield, and wastage of raw materials, energy utilization and final products produced	6	4	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC8.</b> document and mmaintain record of on observations (if any) or deviations related to process and production	3	2	-	-
<b>PC9.</b> load the production plan and process details in erp for future reference	3	2	-	-
<b>PC10.</b> verify documents and track from finished product to ingredients, in case of quality concerns and for quality management system audits	3	2	-	-
Document and maintain records of finished products (related to traditional snack and savoury)	15	10	-	-
<b>PC11.</b> document and maintain records on the types of finished products produced	2	1	-	-
<b>PC12.</b> document and maintain records on the finished products details like batch number, time of packing, date of manufacture, date of expiry, other label details, primary, secondary and tertiary packaging materials for all finished products, storage conditions etc, as per organisation standards	4	3	-	-
<b>PC13.</b> document and maintain record on observations or deviations (if any) related to finished products	3	2	-	-
<b>PC14.</b> load the finished product details in erp for future reference	3	2	-	-
<b>PC15.</b> verify the documents and track from finished product to ingredients, in case of quality concerns and for quality management system audits	3	2	-	-
NOS Total	60	40	-	-







# **National Occupational Standards (NOS) Parameters**

NOS Code	FIC/N8505
NOS Name	Complete documentation and record keeping related to making traditional snack and savoury
Sector	Food Processing
Sub-Sector	Packaged Foods
Occupation	Processing
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	30/09/2021
Next Review Date	30/07/2024
<b>Deactivation Date</b>	30/07/2024
NSQC Clearance Date	30/09/2021







# FIC/N9001: Ensure food safety, hygiene and sanitation for processing food products

## **Description**

This unit is about maintaining food safety, hygiene and sanitation in work area and processing unit for processing food products

#### **Elements and Performance Criteria**

#### Perform safety and sanitation related functions (for processing food products)

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

- **PC1.** comply with food safety and hygiene procedures followed in the organization
- **PC2.** ensure personal hygiene by use of gloves, hairnets, masks, ear plugs, goggles, shoes, etc.
- **PC3.** ensure hygienic production of food by inspecting raw materials, ingredients, finished products etc. for compliance to physical, chemical and microbiological parameters
- **PC4.** pack products in appropriate packaging materials, label and store them in designated area, free from pests, flies and infestations
- **PC5.** clean, maintain and monitor food processing equipment periodically, using it only for the specified purpose
- **PC6.** use safety equipment such as fire extinguisher, eye wash unit, first aid kit when required
- **PC7.** follow housekeeping practices by having designated area for machines/tools
- PC8. follow industry standards like GMP, HACCP and product recall process
- **PC9.** attend training on hazard management to understand types of hazards such as physical, chemical and biological hazards and measures to control and prevent them
- PC10. Identify, document and report problems such as rodents and pests to management
- PC11. conduct workplace checklist audit before and after work to ensure safety and hygiene
- **PC12.** document and maintain raw material, packaging material, process and finished products for the credibility and effectiveness of the food safety control system

#### Apply food safety practices (for processing food products)

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

- **PC13.** determine the quality of food using criteria such as odour, appearance, taste and best before date, and take immediate measures to prevent spoilage
- **PC14.** store raw materials, finished products and allergens separately to prevent cross contamination
- **PC15.** label raw materials and finished products and store them in different storage areas according to safe food practices
- PC16. follow stock rotation based on FEFO/FIFO

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

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







- **KU2.** types of products produced by the organisation
- **KU3.** code of business conduct
- **KU4.** dress code to be followed
- **KU5.** job responsibilities/duties and standard operating procedures
- **KU6.** internal processes such as procurement, store management, inventory management, quality management and key contact points for query resolution
- **KU7.** provision of wages, working hours as per organisation policy
- **KU8.** food safety and hygiene standards followed
- **KU9.** possible physical, chemical and biological hazards and methods of prevention of various hazards
- **KU10.** personal hygiene requirement
- KU11. different types of sanitizers used for process area, equipment and the procedure to use them
- **KU12.** knowledge on food safety standards and regulations (as per fssai)
- **KU13.** quality parameters and quality assessment based on physical parameters, basic food microbiology
- **KU14.** labelling/marking requirements for raw materials, finished goods, stored materials, packaging materials and their designated storage area
- KU15. cleaning and sanitation of equipment and work area
- **KU16.** CIP and COP methods and procedures
- **KU17.** storage norms for raw materials, packaging material and finished products
- KU18. stock rotation of ingredients and finished products based on FEFO/FIFO
- **KU19.** method of maintaining safety check lists for all machineries
- KU20. GHP
- KU21. GMP
- KU22. HACCP

#### **Generic Skills (GS)**

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

- **GS1.** note the information communicated by the supervisor
- **GS2.** note the raw materials used for production and the finished products produced
- **GS3.** note the readings of the process parameters and provide necessary information to fill the process chart
- **GS4.** note down observations (if any) related to the process
- **GS5.** write information documents to internal departments/ internal teams
- **GS6.** note down the data for online ERP or as per applicability in the organization
- **GS7.** read and interpret the process required for producing various types of products
- **GS8.** read and interpret and process flowchart for all products produced
- **GS9.** read equipment manuals and process documents to understand the equipment operation and process requirement
- **GS10.** read internal information documents sent by internal teams







- GS11. discuss task lists, schedules and activities with the supervisor
- **GS12.** effectively communicate with the team members
- **GS13.** question the supervisor in order to understand the nature of the problem and to clarify queries
- **GS14.** attentively listen and comprehend the information given by the speaker
- **GS15.** communicate clearly with the supervisor and cross department teams on the issues faced during process
- **GS16.** analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue
- **GS17.** handle issues in case the supervisor is not available (as per the authority matrix defined by the organization)
- **GS18.** plan and organize the work order and jobs received from the supervisor
- **GS19.** organize raw materials and packaging materials required for all products following the instruction provided by the supervisor
- GS20. plan and prioritize the work based on the instructions received from the supervisor
- **GS21.** plan to utilise time and equipment's effectively
- **GS22.** organize all process/ equipment manuals so as to access information easily
- **GS23.** support the supervisor in scheduling tasks for helper(s)
- **GS24.** understand customer requirements and their priority and respond as per their needs
- GS25. support supervisor in solving problems by detailing out problems
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- **GS31.** use acquired knowledge of the process for identifying and handling issues







## **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Perform safety and sanitation related functions (for processing food products)	25	50	-	-
<b>PC1.</b> comply with food safety and hygiene procedures followed in the organization	2	3	-	-
<b>PC2.</b> ensure personal hygiene by use of gloves, hairnets, masks, ear plugs, goggles, shoes, etc.	1	5	-	-
<b>PC3.</b> ensure hygienic production of food by inspecting raw materials, ingredients, finished products etc. for compliance to physical, chemical and microbiological parameters	2	3	-	-
<b>PC4.</b> pack products in appropriate packaging materials, label and store them in designated area, free from pests, flies and infestations	4	6	-	-
<b>PC5.</b> clean, maintain and monitor food processing equipment periodically, using it only for the specified purpose	2	3	-	-
<b>PC6.</b> use safety equipment such as fire extinguisher, eye wash unit, first aid kit when required	4	6	-	-
<b>PC7.</b> follow housekeeping practices by having designated area for machines/tools	2	3	-	-
<b>PC8.</b> follow industry standards like GMP, HACCP and product recall process	4	6	-	-
<b>PC9.</b> attend training on hazard management to understand types of hazards such as physical, chemical and biological hazards and measures to control andprevent them	1	4	-	-
<b>PC10.</b> Identify, document and report problems such as rodents and pests to management	1	4	-	-
<b>PC11.</b> conduct workplace checklist audit before and after work to ensure safety and hygiene	1	4	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> document and maintain raw material, packaging material, process and finished products for the credibility and effectiveness of the food safety control system	1	3	-	-
Apply food safety practices (for processing food products)	10	15	-	-
<b>PC13.</b> determine the quality of food using criteria such as odour, appearance, taste and best before date, and take immediate measures to prevent spoilage	2	3	-	-
<b>PC14.</b> store raw materials, finished products and allergens separately to prevent cross contamination	2	3	-	-
<b>PC15.</b> label raw materials and finished products and store them in different storage areas according to safe food practices	2	3	-	-
PC16. follow stock rotation based on FEFO/FIFO	4	6	-	-
NOS Total	35	65	-	-







## **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	TBD
Version	1.0
Last Reviewed Date	30/09/2021
Next Review Date	30/07/2024
<b>Deactivation Date</b>	30/07/2024
NSQC Clearance Date	30/09/2021

# Assessment Guidelines and Assessment Weightage

#### **Assessment Guidelines**

- 1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Element/ 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 Element/ 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 center (as per assessment criteria below).
- 5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
- 6. To pass the Qualification Pack assessment, every trainee should score the Recommended Pass % aggregate for the QP.







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/N8501.Prepare and maintain work area and process machineries for making snack and savoury	35	65	-	-	100	15
FIC/N8502.Prepare for production of snack and savoury	35	65	-	-	100	15
FIC/N8503.Prepare raw material for snack and savoury	35	65	-	-	100	15
FIC/N8504.Prepare snack and savoury products	35	65	-	-	100	20
FIC/N8505.Complete documentation and record keeping related to making traditional snack and savoury	60	40	-	-	100	15
FIC/N9001.Ensure food safety, hygiene and sanitation for processing food products	35	65	-	-	100	20
Total	235	365	-	-	600	100







## **Acronyms**

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
CIP	Clean In Place
СОР	Clean Out Of Place
ERP	Enterprise Resource Planning
FIFO	First In First Out
FEFO	First Expiry First Out
FSSAI	Food Safety and Standards Authority of India
GMP	Good Manufacturing Practices
GHP	Good Hygiene Practices
НАССР	Hazard Analysis and Critical Control Point







# **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.