









# Fish and Seafood Processing Technician

QP Code: FIC/Q4001

Version: 2.0

NSQF Level: 3

Food Industry Capacity & Skill Initiative || Shriram Bharatiya Kala kendra, 3rd floor, 1, Copernicus Marg, Mandi House, New Delhi Delhi 110001







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# FIC/Q4001: Fish and Seafood Processing Technician

# **Brief Job Description**

A Fish and Seafood Processing Technician is responsible for processing fish and sea food to achieve quality and quantity of products along with maintaining food safety and hygiene in work environment

#### **Personal Attributes**

A Fish and Seafood Processing Technician must have the ability to plan, organize, prioritize, calculate and handle pressure. The individual must possess reading, writing and communication skills. In addition, the individual must have stamina and professional hygiene.

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

# **Compulsory NOS:**

- 1. FIC/N4001: Prepare and maintain work area and process machineries for processing fish and seafood
- 2. FIC/N4002: Prepare for execution of fish and sea food processing
- 3. FIC/N4003: Execution of fish and sea food processing
- 4. FIC/N9001: Ensure food safety, hygiene and sanitation for processing food products
- 5. FIC/N4004: Complete documentation and record keeping related to processing of fish and seafood

# **Qualification Pack (QP) Parameters**

Sector	Food Processing
Sub-Sector	Fish and Sea Food
Occupation	Processing-Soya Foods
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2004/7411.90
Minimum Educational Qualification & Experience	5th Class with 2 Years of experience relevant experience







Minimum Level of Education for Training in School	
Pre-Requisite License or Training	1. Food standards2. Food handling, packaging and storage techniques3. Raw material, quality control and waste management4. Refrigeration and cold storage5. GMP6. HACCP7. QMS8. Computer basics and ERP system followed by theorganization9. Training in Food Safety Standards and Regulations (as perFSSAI) (Mandatory)
Minimum Job Entry Age	18 Years
Last Reviewed On	29/07/2021
Next Review Date	29/07/2024
<b>Deactivation Date</b>	29/07/2024
NSQC Approval Date	29/07/2021
Version	2.0
Reference code on NQR	2021/FI/FICSI/04374
NQR Version	1.0







# FIC/N4001: Prepare and maintain work area and process machineries for processing fish and seafood

# **Description**

This unit is about preparing work area for hygiene and safety, and ensuring performance, efficiency and maintenance of process machineries and tools for processing fish and seafood, as per the specifications and standards of the organization.

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

# Prepare and maintain work area (for processing fish and seafood)

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 the work area is safe and hygienic for food processing
- **PC3.** dispose waste materials as per defined SOPs and industry requirements

Prepare and maintain process machineries and tools (forprocessing fish and seafood)

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

- **PC4.** check the working and performance of all machineries and tools such as deheading machine, gutting machine, fillet machine, pin bone puller, de-boning machine, skinning machine, vacuum packer, freezing equipments, packaging machines, etc.
- **PC5.** clean the machineries and tools used with approved sanitizers following thecompany specifications and SOP's
- PC6. place the necessary tools required for process
- **PC7.** attend to minor repairs/ faults of all machines, 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 products produced by the organisation
- **KU3.** code of business conduct
- KU4. dress code to be followed
- **KU5.** job responsibilities/duties and SOPs
- **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.** types of chemicals, materials and equipment required for the cleaning and maintenance
- **KU10.** cleaning process to disinfect equipment/ tools
- **KU11.** supplier/manufacturers instructions related to cleaning and maintenance







- **KU12.** knowledge of food safety standards and regulations (as per FSSAI)
- **KU13.** knowledge of legal regulations pertaining to work place such as health and safety, recommended dosage for use of sanitizers, control of substanceshazardous 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 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 ERP or as required by the organization
- **GS7.** read and interpret the process required for producing various types of products
- **GS8.** read and interpret the process flowchart for all products produced
- **GS9.** read equipment manuals and process documents to understand the equipments operation and process requirement
- **GS10.** read internal information documents sent by internal teams
- **GS11.** discuss task lists, schedules and activities with the supervisor
- **GS12.** effectively communicate with 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 the 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 work based on 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
- **GS26.** discuss the possible solutions with the supervisor 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 processing fish and seafood)	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 the work area is safe and hygienic for food processing	3	7	-	-
<b>PC3.</b> dispose waste materials as per defined SOPs and industry requirements	5	10	-	-
Prepare and maintain process machineries and tools (forprocessing fish and seafood)	17	33	-	-
<b>PC4.</b> check the working and performance of all machineries and tools such as deheading machine, gutting machine, fillet machine, pin bone puller, de-boning machine, skinning machine, vacuum packer, freezing equipments, packaging machines, etc.	5	10	-	-
<b>PC5.</b> clean the machineries and tools used with approved sanitizers following thecompany specifications and SOP's	5	10	-	-
<b>PC6.</b> place the necessary tools required for process	2	3	-	-
<b>PC7.</b> attend to minor repairs/ faults of all machines, if required	5	10	-	-
NOS Total	35	65	-	-







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

NOS Code	FIC/N4001
NOS Name	Prepare and maintain work area and process machineries for processing fish and seafood
Sector	Food Processing
Sub-Sector	Fish and Sea Food
Occupation	Processing
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	29/07/2021
Next Review Date	29/07/2024
<b>Deactivation Date</b>	29/07/2024
NSQC Clearance Date	29/07/2021







# FIC/N4002: Prepare for execution of fish and sea food processing

# **Description**

This unit is about preparing for the execution of fish and sea food processing through planning production, equipment utilization organizing raw materials, packaging materials and machineries.

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

Provide support in planning for production (for execution of fish and seafood processing)

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 raw material (various types of fish and seafood) of same type/species selecting raw materials that do not impact the quality of the other avoiding CIP after processing each raw material using the same equipment and machinery for various types of fish and seafood planning maximum capacity utilization of machineries considering the process time for each product planning efficient utilization of resources/manpower prioritizing urgent orders
- **PC4.** calculate the batch size based on the production order and machine capacity
- **PC5.** calculate the raw material requirement (considering process loss) to obtain required quantity of finished product(s)
- **PC6.** calculate the raw materials (including ingredients, if any), packaging materials and manpower requirement for completing the order

Plan equipment utilization (for execution of fish and seafood processing)

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 save energy
- PC11. allot responsibilities/ work to the assistants and helpers

Organize and check equipments and raw material (for execution of fish and seafood processing)

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

- **PC12.** refer to the process chart for raw material to be processed
- **PC13.** weigh the raw materials required for order
- **PC14.** check the conformance of raw material quality to organization standards, through physical analysis, and by referring to the quality analysis report from the supplier / internal lab analysis report
- PC15. ensure working and performance of required machineries and tools
- **PC16.** keep the tools accessible to attend repairs/faults in case of breakdown
- **PC17.** check the cold storage room for its condition and space availability
- **PC18.** set and maintain required temperature of storage area







# **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 sops
- **KU6.** internal processes such as procurement, store management, inventory management, quality management and key contact points for queryresolution
- **KU7.** provision of wages and working hours as per organisation policy
- **KU8.** food safety and hygiene standards followed
- **KU9.** types of raw materials (various types of fish and sea food) and process requirement for each variety
- **KU10.** types of machineries used in processing and machineries used in the organisation
- **KU11.** maintenance of process equipments
- **KU12.** supplier/manufacturers instructions related to machineries
- KU13. process requirement for all types of fish and seafood
- 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. GMP
- KU19. 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 ERP or as required by the organization
- **GS7.** read and interpret the process required for producing various types of products
- **GS8.** read and interpret the process flowchart for all products produced
- **GS9.** read equipment manuals and process documents to understand the equipments operation and process requirement
- **GS10.** read internal information documents sent by internal teams







- GS11. discuss task lists, schedules and activities with the supervisor
- **GS12.** effectively communicate with 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 the 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 work based on 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
- **GS26.** discuss the possible solutions with the supervisor 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 for production (for execution of fish and seafood processing)	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 raw material (various types of fish and seafood) of same type/species selecting raw materials that do not impact the quality of the other avoiding CIP after processing each raw material using the same equipment and machinery for various types of fish and seafood planning maximum capacity utilization of machineries considering the process time for each product planning efficient utilization of resources/manpower prioritizing urgent orders	5	10	-	-
<b>PC4.</b> calculate the batch size based on the production order and machine capacity	2	3	-	-
<b>PC5.</b> calculate the raw material requirement (considering process loss) to obtain required quantity of finished product(s)	2	3	-	-
<b>PC6.</b> calculate the raw materials (including ingredients, if any), packaging materials and manpower requirement for completing the order	2	3	-	-
Plan equipment utilization (for execution of fish and seafood processing)	8	17	-	-
<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 save energy	1	2	-	-
<b>PC11.</b> allot responsibilities/ work to the assistants and helpers	2	3	-	-
Organize and check equipments and raw material (for execution of fish and seafood processing)	10	20	-	-
<b>PC12.</b> refer to the process chart for raw material to be processed	1	2	-	-
PC13. weigh the raw materials required for order	1	2	-	-
<b>PC14.</b> check the conformance of raw material quality to organization standards, through physical analysis, and by referring to the quality analysis report from the supplier / internal lab analysis report	2	4	-	-
<b>PC15.</b> ensure working and performance of required machineries and tools	2	4	-	-
PC16. keep the tools accessible to attend repairs/faults in case of breakdown	0.5	1.5	-	-
<b>PC17.</b> check the cold storage room for its condition and space availability	1.5	3.5	-	-
<b>PC18.</b> set and maintain required temperature of storage area	2	3	-	-
NOS Total	35	65	-	-







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

NOS Code	FIC/N4002
NOS Name	Prepare for execution of fish and sea food processing
Sector	Food Processing
Sub-Sector	Fish and Sea Food
Occupation	Processing
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	29/07/2021
Next Review Date	29/07/2024
Deactivation Date	29/07/2024
NSQC Clearance Date	29/07/2021







# FIC/N4003: Execution of fish and sea food processing

# **Description**

This unit is about execution of fish and sea food processing using various machineries as per the specifications and standards of the organization

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

#### Receive and handle raw material

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

- **PC1.** receive live or chilled raw material (fish and sea food) in refrigerated trucks
- **PC2.** check the raw material and condition of the transporting vehicle for any possible contamination
- **PC3.** check the container to see if the raw material is adequately iced and storage temperature is maintained; check temperature of the raw material
- **PC4.** inspect raw material quality through physical parameters like odour, scales, eyes, gills and overall appearance/ physical condition
- **PC5.** inspect frozen/chilled seafood for shipping temperature, signs of freezer burn, adequacy of protective covering and integrity of packaging, inspect live shellfish through tap test (tapping live oysters, mussels etc), leg movement (for lobsters, crab)
- **PC6.** dump raw material into washing tank for washing , remove washed raw material from water and place in crates/containers
- **PC7.** prepare ice flakes and place fresh whole fish and seafood on a bed of ice flakes, cover each layer of fish with layer of ice and store until further processing or weigh the washed raw material and transfer to the preprocessing area
- **PC8.** weigh the washed raw material and transfer to the pre-processing area

#### Sort and grade

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

- **PC9.** weigh and transfer raw material to the sorting table
- **PC10.** inspect and separate different species of fish and seafood, remove damaged, spoiled, diseased seafood and discard it
- **PC11.** grade the sorted fish and seafood based on size and quality and place in designated container
- **PC12.** wash graded fish and seafood manually (or) open valves of the spraying system for water and adjust pressure to wash by spraying water on fish
- **PC13.** discard the rejects following the disposal procedure

#### Pre-process fish and seafood

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

- **PC14.** weigh the graded fish and sea food for pre-processing
- **PC15.** remove the shell (in case of shellfish)
- **PC16.** slit the fish from the throat to the end of the abdomen (gutting)
- **PC17.** remove the head manually (or) place and position the fish in the deheader machine and press button or lever to cut fish head mechanically (deheading)







- **PC18.** pull out the gut and egg sac, either before or after deheading (gut pulling)
- **PC19.** clean out any leftover gut and remove the organs that run down the spine of the fish (spooning)
- **PC20.** wash with water or by showering with ice water
- **PC21.** grade the pre-processed fish and seafood based on size, weight and quality and stack in respective bins
- **PC22.** weigh the graded fish and sea food and transfer to the processing area (or) to cold storage room and store maintaining temperature as per organisation standards until further processing

#### Process fish and seafood

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

- PC23. receive pre-processed raw material (fish and sea food) for processing
- PC24. thaw fish and seafood (in case of frozen fish and sea food) following SOP
- **PC25.** prepare/measure moisture retention agent following sop, weigh raw material and soak in moisture retention agents for retention of moisture, texture, flavour and nutrients
- PC26. control and maintain temperature to pasteurize fish for removal of microbial load
- **PC27.** transfer pasteurized fish into chilled water to prevent overcooking
- **PC28.** remove fish from chilled water, place chilled fish in vibrate belt, adjust controls and start vibrate belt to remove excess water from fish
- **PC29.** set controls such as temperature, conveyor speed of tunnel freezer and push buttons to start, place fish and seafood on conveyor and allow it to pass through the tunnel freezer to freeze to specified temperature (or) place fish and seafood in trays and load trays in freezer, maintain and control temperature of freezer to freeze fish
- **PC30.** dip frozen fish in water/ chilled water manually and remove after specified time for glazing (or) start pump to circulate water or control spraying system to spray water, adjust controls to maintain water temperature in glazing machine, adjust speed of the conveyor to allow the frozen fish to dip in water for specified time, and remove glazed fish from conveyor
- **PC31.** prepare fillet, cut fillets (dorsal and abdominal muscles) from the backbone and remove the collarbone, remove skin if required, remove pin bones, inspect fillets and remove damages, cut into portions based on weight and parts (like loin, belly flap, tail, etc.), freeze to specified temperature and glaze fillets
- **PC32.** pack weighed quantity of the glazed fish and sea food products in primary packaging material and label as well as pack the primary packaged product in cartons
- **PC33.** sample the product for quality analysis to ensure conformance to standards
- **PC34.** transfer packed products to cold storage room, and ensure storage temperature is maintained by verifying the temperature gauge at regular intervals

# Post production cleaning and regularmaintenance of equipments

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

- **PC36.** clean the work area, machineries, equipment and tools using recommended cleaning agents and sanitizers
- **PC37.** attend minor repairs/faults of all machines (if any)
- **PC38.** ensure periodic (daily/weekly/monthly/quarterly/half yearly/annual) maintenance of all machines and equipment following the SOP or following suppliers instructions/manuals
- **PC35.** clean the machineries used with approved sanitizers following CIP procedure







# **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 and working hours as per organisation policy
- **KU8.** food safety and hygiene standards followed
- **KU9.** types of raw materials (fish and sea food) and products obtained from each raw material
- **KU10.** various process, process parameters
- **KU11.** process requirements for all species and types of fish and sea food
- **KU12.** types of machineries used for processing and machineries used in the organisation
- **KU13.** handling all machineries
- **KU14.** maintenance of machineries, equipments and tools
- **KU15.** quality parameters, basic food microbiology and quality assessment based on physical parameters
- **KU16.** types and category of packaging materials, packaging machineries
- **KU17.** basic knowledge of refrigeration
- **KU18.** cold storage facility and its maintenance
- **KU19.** storage conditions for all varieties of fish and sea food
- KU20. storage procedures for raw materials and processed food
- **KU21.** cleaning procedures such as CIP and COP
- KU22. knowledge of sanitizers and disinfectants and their handling and storing methods
- **KU23.** food laws and regulations on product, packaging and labelling
- KU24. food safety and hygiene
- KU25. GMP
- KU26. 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 ERP or as required by the organization
- **GS7.** read and interpret the process required for producing various types of products
- GS8. read and interpret the process flowchart for all products produced
- **GS9.** read equipment manuals and process documents to understand the equipments operation and process requirement
- **GS10.** read internal information documents sent by internal teams
- GS11. discuss task lists, schedules and activities with the supervisor
- **GS12.** effectively communicate with 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 the 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 work based on 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
- **GS26.** discuss the possible solutions with the supervisor 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 and handle raw material	6	9	-	-
<b>PC1.</b> receive live or chilled raw material (fish and sea food) in refrigerated trucks	0.5	0.5	-	-
<b>PC2.</b> check the raw material and condition of the transporting vehicle for any possible contamination	0.5	0.5	-	-
<b>PC3.</b> check the container to see if the raw material is adequately iced and storage temperature is maintained; check temperature of the raw material	0.5	1.5	-	-
<b>PC4.</b> inspect raw material quality through physical parameters like odour, scales, eyes, gills and overall appearance/ physical condition	1.5	1.5	-	-
<b>PC5.</b> inspect frozen/chilled seafood for shipping temperature, signs of freezer burn, adequacy of protective covering and integrity of packaging, inspect live shellfish through tap test (tapping live oysters, mussels etc), leg movement (for lobsters, crab)	1.5	1.5	-	-
<b>PC6.</b> dump raw material into washing tank for washing , remove washed raw material from water and place in crates/containers	0.5	1.5	-	-
<b>PC7.</b> prepare ice flakes and place fresh whole fish and seafood on a bed of ice flakes, cover each layer of fish with layer of ice and store until further processing or weigh the washed raw material and transfer to the preprocessing area	0.5	1.5	-	-
<b>PC8.</b> weigh the washed raw material and transfer to the pre-processing area	0.5	0.5	-	-
Sort and grade	3.5	6.5	-	-
<b>PC9.</b> weigh and transfer raw material to the sorting table	0.5	0.5	-	-
<b>PC10.</b> inspect and separate different species of fish and seafood, remove damaged, spoiled, diseased seafood and discard it	1	2	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC11.</b> grade the sorted fish and seafood based on size and quality and place in designated container	1	2	-	-
<b>PC12.</b> wash graded fish and seafood manually (or) open valves of the spraying system for water and adjust pressure to wash by spraying water on fish	0.5	1.5	-	-
<b>PC13.</b> discard the rejects following the disposal procedure	0.5	0.5	-	-
Pre-process fish and seafood	11	19	-	-
<b>PC14.</b> weigh the graded fish and sea food for preprocessing	0.5	0.5	-	-
PC15. remove the shell (in case of shellfish)	2	3	-	-
<b>PC16.</b> slit the fish from the throat to the end of the abdomen (gutting)	2	3	-	-
<b>PC17.</b> remove the head manually (or) place and position the fish in the deheader machine and press button or lever to cut fish head mechanically (deheading)	2	3	-	-
PC18. pull out the gut and egg sac, either before or after deheading (gut pulling)	2	3	-	-
<b>PC19.</b> clean out any leftover gut and remove the organs that run down the spine of the fish (spooning)	1	2	-	-
PC20. wash with water or by showering with ice water	0.5	1.5	-	-
<b>PC21.</b> grade the pre-processed fish and seafood based on size, weight and quality and stack in respective bins	0.5	1.5	-	-
<b>PC22.</b> weigh the graded fish and sea food and transfer to the processing area (or) to cold storage room and store maintaining temperature as per organisation standards until further processing	0.5	1.5	-	-
Process fish and seafood	12	25	-	-
PC23. receive pre-processed raw material (fish and sea food) for processing	0.5	1.5	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC24.</b> thaw fish and seafood (in case of frozen fish and sea food) following SOP	0.5	1.5	-	-
<b>PC25.</b> prepare/measure moisture retention agent following sop, weigh raw material and soak in moisture retention agents for retention of moisture, texture, flavour and nutrients	1	2	-	-
<b>PC26.</b> control and maintain temperature to pasteurize fish for removal of microbial load	1	2	-	-
<b>PC27.</b> transfer pasteurized fish into chilled water to prevent overcooking	0.5	0.5	-	-
<b>PC28.</b> remove fish from chilled water, place chilled fish in vibrate belt, adjust controls and start vibrate belt to remove excess water from fish	1	2	-	-
<b>PC29.</b> set controls such as temperature, conveyor speed of tunnel freezer and push buttons to start, place fish and seafood on conveyor and allow it to pass through the tunnel freezer to freeze to specified temperature (or) place fish and seafood in trays and load trays in freezer, maintain and control temperature of freezer to freeze fish	2	3	-	-
<b>PC30.</b> dip frozen fish in water/ chilled water manually and remove after specified time for glazing (or) start pump to circulate water or control spraying system to spray water, adjust controls to maintain water temperature in glazing machine, adjust speed of the conveyor to allow the frozen fish to dip in water for specified time, and remove glazed fish from conveyor	1.5	2.5	-	-
<b>PC31.</b> prepare fillet, cut fillets (dorsal and abdominal muscles) from the backbone and remove the collarbone, remove skin if required, remove pin bones, inspect fillets and remove damages, cut into portions based on weight and parts (like loin, belly flap, tail, etc.), freeze to specified temperature and glaze fillets	1.5	2.5	-	-
PC32. pack weighed quantity of the glazed fish and sea food products in primary packaging material and label as well as pack the primary packaged product in cartons	1	4	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC33.</b> sample the product for quality analysis to ensure conformance to standards	1	2	-	-
<b>PC34.</b> transfer packed products to cold storage room, and ensure storage temperature is maintained by verifying the temperature gauge at regular intervals	0.5	1.5	-	-
Post production cleaning and regularmaintenance of equipments	2.5	5.5	-	-
<b>PC36.</b> clean the work area, machineries, equipment and tools using recommended cleaning agents and sanitizers	0.5	1.5	-	-
<b>PC37.</b> attend minor repairs/faults of all machines (if any)	0.5	1.5	-	-
PC38. 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	-	-
<b>PC35.</b> clean the machineries used with approved sanitizers following CIP procedure	1	2	-	-
NOS Total	35	65	-	-







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

NOS Code	FIC/N4003
NOS Name	Execution of fish and sea food processing
Sector	Food Processing
Sub-Sector	Fish and Sea Food
Occupation	Processing
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	29/07/2021
Next Review Date	29/07/2024
<b>Deactivation Date</b>	29/07/2024
NSQC Clearance Date	29/07/2021







# 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
- **GS26.** discuss the possible solutions with the supervisor 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
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
Deactivation Date	30/07/2024
NSQC Clearance Date	30/09/2021







# FIC/N4004: Complete documentation and record keeping related to processing of fish and seafood

# **Description**

This unit is about documenting and maintaining records of raw materials, process and finished products related to processing of fish and seafood.

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

#### Document and maintain records of aw material (for processing of fish and seafood)

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

- **PC1.** record details of all raw materials used in the process such as name and variety of raw materials, supplier details, receiving date/ date of manufacture, expiry date, supplier quality document, quality parameters of all raw materials, internal quality analysis report, etc. as per organization standards
- **PC2.** maintain record of 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 on production schedule and process parameters (for processing of fish and seafood)

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

- **PC5.** document process plan with details such as product details, process sequence, equipments and machinery details, efficiency and capacity utilization of equipment
- **PC6.** document process details such as type/ variety/species of raw material used, process parameters (temperature, time) in process chart or production log for all types of raw materials handled
- **PC7.** document batch size, raw material used, yield after each stage of process, wastage, energy utilizationand final yield
- **PC8.** maintain record of 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 audit

### Document and maintain records on he finished products (for processing of fish and seafood)

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

- **PC11.** document and maintain record of types of processed food
- **PC12.** document the processed food details such as batch number, time of packing, date of manufacture, date of expiry, other label details, primar and secondary packaging materials for all finished products, storage conditions, etc. as per organization standards
- PC13. maintain record of observations or deviations (if any) related to processed food
- **PC14.** load the finished product details in ERP for future reference
- **PC15.** verify the documents and track them from processed food to raw materials, 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, 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 like procurement, store management, inventory management, quality management and key contact points for query resolution
- **KU7.** food safety and hygiene standards followed
- **KU8.** documentation system followed in the organization such as raw materials chart, process chart and finished products chart
- **KU9.** details of raw materials and finished products to be recorded
- **KU10.** details of production plan and process parameters to be recorded
- **KU11.** methods to record and maintain record of observations (if any) related to raw materials, process and finished products
- KU12. methods to track back the record from finished product to raw material
- **KU13.** basic computer knowledge
- **KU14.** entering 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 by the supervisor
- **GS2.** note the raw materials used for production and the finished productsproduced
- **GS3.** note the readings of the process parameters and provide necessaryinformation 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 erp or as required by the organization
- **GS7.** read and interpret the process required for producing various types of products
- **GS8.** read and interpret the process flowchart for all products produced
- **GS9.** read equipment manuals and process documents to understand the equipments operation and process requirement
- **GS10.** read internal information documents sent by internal teams
- GS11. discuss task lists, schedules and activities with 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 thesupervisor
- **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
- **GS26.** discuss the possible solutions with the supervisor for problem solving
- **GS27.** apply domain information about maintenance processes and technicalknowledge 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 duringoperations
- **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 ofraw material (for processing of fish and seafood)	15	10	-	-
<b>PC1.</b> record details of all raw materials used in the process such as name and variety of raw materials, supplier details, receiving date/ date of manufacture, expiry date, supplier quality document, quality parameters of all raw materials, internal quality analysis report, etc. as per organization standards	6	4	-	-
<b>PC2.</b> maintain record of 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 onproduction schedule and process parameters (for processing of fish and seafood)	30	20	-	-
<b>PC5.</b> document process plan with details such as product details, process sequence, equipments and machinery details, efficiency and capacity utilization of equipment	6	4	-	-
PC6. document process details such as type/ variety/species of raw material used, process parameters (temperature, time) in process chart or production log for all types of raw materials handled	9	6	-	-
<b>PC7.</b> document batch size, raw material used, yield after each stage of process, wastage, energy utilizationand final yield	6	4	-	-
<b>PC8.</b> maintain record of 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	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC10.</b> verify documents and track from finished product to ingredients, in case of quality concerns and for quality management system audit	3	2	-	-
Document and maintain records onthe finished products (for processing of fish and seafood)	15	10	-	-
<b>PC11.</b> document and maintain record of types of processed food	2	1	-	-
<b>PC12.</b> document the processed food details such as batch number, time of packing, date of manufacture, date of expiry, other label details, primar and secondary packaging materials for all finished products, storage conditions, etc. as per organization standards	4	3	-	-
PC13. maintain record of observations or deviations (if any) related to processed food	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 them from processed food to raw materials, 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/N4004
NOS Name	Complete documentation and record keeping related to processing of fish and seafood
Sector	Food Processing
Sub-Sector	Fish and Sea Food
Occupation	Processing
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	29/07/2021
Next Review Date	29/07/2024
<b>Deactivation Date</b>	29/07/2024
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 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/N4001.Prepare and maintain work area and process machineries for processing fish and seafood	35	65	-	-	100	10
FIC/N4002.Prepare for execution of fish and sea food processing	35	65	-	-	100	20
FIC/N4003.Execution of fish and sea food processing	35	65	-	-	100	40
FIC/N9001.Ensure food safety, hygiene and sanitation for processing food products	35	65	-	-	100	20
FIC/N4004.Complete documentation and record keeping related to processing of fish and seafood	60	40	-	-	100	10
Total	200	300	-	-	500	100







# **Acronyms**

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







# **Glossary**

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







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