





Transforming the skill landscape



## **Industrial Production Worker**

QP Code: FIC/Q9005

Version: 2.0

NSQF Level: 2

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सत्यमेव जयते GOVERNMENT OF INDIA MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP Qualification Pack



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## FIC/Q9005: Industrial Production Worker

## **Brief Job Description**

The duties of an Industrial production worker consist of a limited range of tasks such as preparation for production, monitoring production; winding up etc. in a mechanised unit and as per instructions and specifications provided. The candidate is expected to carry out these assigned duties in line with quality standards and organizational policies. This role also requires adherence to food and personal safety guidelines at every stage during production.

#### **Personal Attributes**

Needs to be quality conscious, alert and physically active as well as capable to stand and work for long hours. Should be able to work as per instructions given, be responsible for own outcomes and work in a team.

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

#### **Compulsory NOS:**

- 1. <u>CSC/N1336: Work effectively with others</u>
- 2. FIC/N9020: Monitor the food production on a mechanized production line for processed food items
- 3. FIC/N9002: Use basic health and safety practices at a food processing workplace

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

Sector	Food Processing
Sub-Sector	Fruits and Vegetables, Food Grain Milling, Dairy Products, Meat and Poultry, Fish and Sea Food, Bread and Bakery, Alcoholic Beverages, Aerated Water/Soft Drinks, Soya Food, Packaged Foods
Occupation	Production
Country	India
NSQF Level	2
Aligned to NCO/ISCO/ISIC Code	NCO-2004/7412.15







Minimum Educational Qualification & Experience	8th Class OR 5th Class with 3 Years of experience
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	30/09/2021
Next Review Date	30/07/2024
Deactivation Date	30/07/2024
NSQC Approval Date	30/09/2021
Version	2.0
Reference code on NQR	2021/FI/FICSI/04510
NQR Version	1







## **CSC/N1336: Work effectively with others**

## Description

This unit covers basic etiquette and competencies that a candidate is required to possess and demonstrate in their behavior and interactions with others at the workplace. These cover areas such as communication etiquette, discipline, listening etc.

## **Elements and Performance Criteria**

#### Work effectively with others

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

- **PC1.** accurately receive information and instructions from the supervisor and fellow workers, getting clarification where required
- **PC2.** accurately pass on information to authorized persons who require it and within agreed timescale and confirm its receipt
- PC3. give information to others clearly, at a pace and in a manner that helps them to understand
- **PC4.** display helpful behavior by assisting others in performing tasks in a positive manner, where required and possible
- **PC5.** consult with and assist others to maximize effectiveness and efficiency in carrying out tasks
- **PC6.** display appropriate communication etiquette while working (Communication etiquette: do not use abusive language; use appropriate titles and terms of respect; do not eat or chew while talking (vice versa) etc.)
- **PC7.** display active listening skills while interacting with others at work
- **PC8.** use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism
- **PC9.** demonstrate responsible and disciplined behaviors at the workplace (Disciplined behaviors: e.g. punctuality; completing tasks as per given time and standards; not gossiping and idling time; eliminating waste, honesty, etc.)
- **PC10.** escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict

### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** legislation, standards, policies, and procedures followed in the company relevant to own employment and performance conditions
- KU2. reporting structure, inter-dependent functions, lines and procedures in the work area
- KU3. relevant people and their responsibilities within the work area
- KU4. escalation matrix and procedures for reporting work and employment related issues
- **KU5.** various categories of people that one is required to communicate and coordinate within the organization
- **KU6.** importance of effective communication in the workplace







- KU7. importance of teamwork in organizational and individual success
- KU8. various components of effective communication
- KU9. key elements of active listening
- KU10. value and importance of active listening and assertive communication
- KU11. barriers to effective communication
- KU12. importance of tone and pitch in effective communication
- **KU13.** importance of avoiding casual expletives and unpleasant terms while communicating professional circles
- **KU14.** how poor communication practices can disturb people, environment and cause problems for the employee, the employer and the customer
- KU15. importance of ethics for professional success
- **KU16.** importance of discipline for professional success
- KU17. what constitutes disciplined behavior for a working professional
- KU18. common reasons for interpersonal conflict
- KU19. importance of developing effective working relationships for professional success
- KU20. expressing and addressing grievances appropriately and effectively
- KU21. importance and ways of managing interpersonal conflict effectively

## **Generic Skills (GS)**

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

- **GS1.** read basic terms and terminologies to accurately interpret work-related documents, labels, supervisor instructions in the local language
- **GS2.** read and interpret accurate information from various relevant work instructions and records
- **GS3.** write clear and legible notes to self, colleagues and seniors to pass messages, keep records, prepare to-do lists, take down instructions
- **GS4.** write basic numbers, quantities and work-related terminology for operational requirements in the local language
- **GS5.** interact with the supervisor appropriately (correct protocol and manner of speaking) in order to understand the basic requirements of the product, production plans, and other associated requirements
- **GS6.** give clear instructions to co-workers about the type of output required and answer queries
- **GS7.** display active listening skills while interacting with co-workers and others in the workplace
- **GS8.** use appropriate planning to maintain a smooth relationship with fellow team members
- **GS9.** take steps within ones limits of authority to initiate modification in plan if the circumstances require it
- GS10. check that work meets customer requirements
- GS11. deliver consistent and reliable service to internal and external customers
- **GS12.** work with co-workers and supervisor to resolve any issues that threaten disruption, increase risk, cause delays or under-achievement of quality and targets as per the planned schedule







## **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Work effectively with others	30	70	-	-
<b>PC1.</b> accurately receive information and instructions from the supervisor and fellow workers, getting clarification where required	3	7	-	-
<b>PC2.</b> accurately pass on information to authorized persons who require it and within agreed timescale and confirm its receipt	3	7	-	_
<b>PC3.</b> give information to others clearly, at a pace and in a manner that helps them to understand	3	7	-	-
<b>PC4.</b> display helpful behavior by assisting others in performing tasks in a positive manner, where required and possible	3	7	-	_
<b>PC5.</b> consult with and assist others to maximize effectiveness and efficiency in carrying out tasks	3	7	-	-
<b>PC6.</b> display appropriate communication etiquette while working (Communication etiquette: do not use abusive language; use appropriate titles and terms of respect; do not eat or chew while talking (vice versa) etc.)	3	7	-	-
<b>PC7.</b> display active listening skills while interacting with others at work	3	7	-	-
<b>PC8.</b> use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism	3	7	-	-
<b>PC9.</b> demonstrate responsible and disciplined behaviors at the workplace (Disciplined behaviors: e.g. punctuality; completing tasks as per given time and standards; not gossiping and idling time; eliminating waste, honesty, etc.)	3	7	-	-
<b>PC10.</b> escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict	3	7	-	_
NOS Total	30	70	-	-







## National Occupational Standards (NOS) Parameters

NOS Code	CSC/N1336
NOS Name	Work effectively with others
Sector	Capital Goods
Sub-Sector	Machine Tools, Dies, Moulds and Press Tools, Plastics Manufacturing Machinery, Textile Manufacturing Machinery, Process Plant Machinery, Electrical and Power Machinery, Light Engineering Goods
Occupation	Machining
NSQF Level	3
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/N9020: Monitor the food production on a mechanized production line for processed food items

## Description

This unit covers responsibilities of an industrial production worker in a mechanized food processing unit monitoring various stages of processing perations as per organizational policies and tandards overseen by the supervisor.

## **Elements and Performance Criteria**

#### Feed or load stacking equipment or moulds into the machine

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

- **PC1.** use appropriate personal protective equipment ppe)againsthazardsassociated with production as per occupational health and safety guidelines personal protective equipment (ppe): coats and aprons; ear plugs or muffs; eye and facial protection; head-wear; lifting assistance; mesh aprons; protective boot covers; protective hand and arm covering ; protective head and hair covering; work uniforms; safety and waterproof footwear, etc.
- **PC2.** carry out preliminary safety & hygiene checks of the working areaandrelatedinputs inputs: e.g. equipment, containers, tensils, hand tools, lifting aids, etc.
- **PC3.** clean the equipment for carrying the food items in various stages of processing properly
- **PC4.** place the equipment for carrying the food items in the stacking equipment in correct position and load into the machine as per the instruction given in the guideline
- **PC5.** select appropriate lining materials or agents as per thespecificationsgivenand apply it on to food item carrying equipment where required
- **PC6.** identify and pick out unacceptable/distorted stacking or food carrying equipment from the conveyer belt to ensure quality maintenance.
- **PC7.** check and adjust the stacking equipment to avoid blockage/jam
- PC8. ensure the equipment, used are clean and clear of any

Perform basic operations on the machines

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

- PC9. identify regulatory keys of the machine and keyfunctions
- **PC10.** inspect/check machines prior to peration for any mechanical inefficiency and technical problem
- PC11. identify and report if technical maintenance is required
- **PC12.** set and adjust parameters of food processing machine in accordance as per the specification given
- **PC13.** monitor the various stages of processing operation to maintain quality standards
- PC14. operate machines effectively and safely while working
- **PC15.** check and control line speeds, roduction rates, starting and stopping of equipment, etc. as per the requirements specified
- **PC16.** conduct performance check of quipment to maintain effective operating condition
- PC17. identify and report variation/ technical issues in operating condition







- **PC18.** identify anomalies/ variations in operating system and report the issue to the concerned authorised person mmediately
- **PC19.** identify the appropriate method to shut down the operating system following the necessary guidelines given in the instructions

Monitor all product pieces passing through the allotted assembly line area

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

- **PC20.** monitor pieces passing to confirm that all the items pass through the conveyor belt as per the allotted process
- PC21. identify and pick out non-conforming product pieces passing through the conveyer belt
- **PC22.** place the non-conforming product in a separate box and label the box as per the workplace instruction
- **PC23.** identify and report any operating system issues
- **PC24.** confirm the approved product and direct it to the specified belt for packaging
- **PC25.** confirm that the outcome product meets the standard quality as per the specification mentioned in the guidelines
- **PC26.** operate the machine by using the control keys safely and efficiently in line with production requirements machine control keys: start, stop, regulatory and function keys production requirements: e.g. line speed, production rate, correct ingredients, recommended mixing proportions, temperature, time control,etc.
- **PC27.** shut down the operating system safely and correctly following the necessary

Maintain and clean work area and quipment

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

- PC28. perform basic documentation required like recording the no of batches, etc.
- **PC29.** follow workplace hygiene and sanitation practices on the completion of processing activity hygiene and sanitation practices: e.g. clean equipment, hand tools and conveyor belts; wash and dry containers and utensils; regularly wash and replace used uniforms, caps, aprons, gloves and shoes; collect & recycle cardboard and trash; report presence of hazardous substance or other chemicals; etc.
- **PC30.** return used equipment, tools and other utilities to their respective storage as per organizational guidelines or policies
- **PC31.** read and state numerical, alphabetical, graphical and colour indicators and alarms and inform as instructed
- PC32. perform basic documentation required like recording the no of batches, etc
- PC33. follow workplace hygiene and sanitation practices on the completion of processing activity
- **PC34.** return used equipment, tools and other utilities to their respective storage as per organizational guidelines or policies

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

**KU1.** relevant legislation/regulatory requirements, standards, policies, and procedures followed in the company Regulatory requirements contained in: Food Safety and Standards Regulations2011, Food Safety and Standards Act,2006, Occupational Health SafetyISO18000, relevant HACCP guidelines, relevant ISO 22000 guidelines, etc







- **KU2.** relevant health and safety requirements applicable in the workplace
- **KU3.** own job role and responsibilities and sources for information per taining to employment terms, entitlements, job role and responsibilities
- KU4. reporting structure, inter-dependent functions, lines and procedures in the work area
- **KU5.** who to approach for support in order to obtain workrelated instructions, clarifications and support
- **KU6.** importance of following health, hygiene, safety and quality standards and the impact of not following the standards on consumers and the business
- KU7. relevant people and their responsibilities within the workarea
- KU8. escalation matrix and procedures for reporting work and employment related issues
- **KU9.** importance of using personal protective equipment (ppe)against possibleoccupational hazards while carrying out productionactivities hazards: chemicals; bodily fluids; sharps noise; manual handling; work posture; underfoot hazards; moving parts of machinery; toxic waste; etc.
- **KU10.** importance of following workplace hygiene and sanitation practices as prescribed in the organizational guidelines
- **KU11.** how to obtain job specifications and other relevant production in structions from appropriate authority
- KU12. various types of mechanized processed food production units
- **KU13.** list of various equipment, tools and machines used inprocessed food production units and their functions
- **KU14.** various methods used to avoid contamination while handling food items
- **KU15.** different factors that affect result of measurement of ingredients and the relevant corrective steps taken to control them
- **KU16.** importance of frequent monitoring, checking and adjusting of equipment settings according to product specifications
- **KU17.** reporting protocol of an organization and how to handle emergency situations and consequences due to non-conformance
- **KU18.** equipment parameters and how to set them as per organizational standards
- **KU19.** main factors that influence product outcome: temperature, volume, time, ratio etc.
- **KU20.** technical steps commonly involved in the baking process e.g ingredient mixing/blending, heating, cooling, moulding/shaping, cutting, stacking, fillingin containers, etc.
- KU21. how to load, position or feed the raw material on the machine
- **KU22.** various operating parameters in different types of bakery units and which aspect of the production process does it impact
- KU23. how to identify the operating parameters of the machine
- **KU24.** how to enter the operating parameters into the machine
- **KU25.** importance of obtaining a sample and inspecting it against the required standard before initiating the complete production process and intermittently
- **KU26.** possible quality parameters that may need to be checked to ensure adherence to standard
- KU27. possible indicators of fault in the equipment or machine
- **KU28.** safety and hygiene precautions for packing operation of various types of processed food items







- **KU29.** contamination/food safety risks related to stages in the bakery process and related control measures
- **KU30.** basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- KU31. the machine sequence for production
- **KU32.** the procedures for reporting and dealing with problems
- KU33. how to monitor and maintain the levels of incoming materials
- **KU34.** specification that have to be monitored and inspected the flow of processes supplying the raw material and the effect of outputs on downstreamprocesses
- **KU35.** effect of variation in inputs, such as packaging components/consumables, materials and/or services, on process performance
- **KU36.** typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- **KU37.** methods used to monitor the mechanized production process, such as visual inspecting, and measuring and integrity testing as required by the process
- KU38. emergency and routine shutdowns, when and how to perform the same on the machine
- KU39. the condition in which the area should be left
- **KU40.** sustainable processing methods, environmental issues and controls and handling procedures related to the process
- **KU41.** different types of the food standards code, symbols, regulations, labels, weights and other related guidelines relevant to bread and bakery

## **Generic Skills (GS)**

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

- **GS1.** fill logs, forms and formats in local, Hindi or English language for recording production figures, quality related information, machine maintenance related information, etc. whenever needed
- **GS2.** take notes in local, Hindi or English language of instructions received from supervisor
- **GS3.** document measurement readings in correct mathematical units whenever required
- **GS4.** interpret pictorial representations and written signs or instructions on ingredients
- **GS5.** read and interpret numbers written in English, Hindi or lo chllan gauge
- **GS6.** understand safety symbols on equipment and measurement units used
- **GS7.** read the job specification provided in local, Hindi or English language
- **GS8.** inform supervisor or team members of equipment issues or any other problems in any language understood locally
- GS9. take instructions completely so that no instruction is missed or misunderstood
- **GS10.** seek clarification and understanding where instructions are not clear in any language understood locally
- **GS11.** use common food product or machine related terms and jargons where required
- **GS12.** use the quality parameters to take decisions to reject out of specification product
- **GS13.** when faced with difficult decisions seek clarification from the supervisor and understand the parameters used by the supervisor to







**GS14.** plan and organize own work in a way that all activities are completed in time and as per specifications







## **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Feed or load stacking equipment or moulds into the machine	5	18	-	-
<b>PC1.</b> use appropriate personal protective equipment ppe)againsthazardsassociated with production as per occupational health and safety guidelines personal protective equipment (ppe): coats and aprons; ear plugs or muffs; eye and facial protection; head-wear; lifting assistance; mesh aprons; protective boot covers; protective hand and arm covering ; protective head and hair covering; work uniforms; safety and waterproof footwear, etc.	1	3	_	-
<b>PC2.</b> carry out preliminary safety & hygiene checks of the working areaandrelatedinputs inputs: e.g. equipment, containers, tensils, hand tools, lifting aids, etc.	1	2	-	-
<b>PC3.</b> clean the equipment for carrying the food items in various stages of processing properly	-	3	-	-
<b>PC4.</b> place the equipment for carrying the food items in the stacking equipment in correct position and load into the machine as per the instruction given in the guideline	1	2	-	-
<b>PC5.</b> select appropriate lining materials or agents as per thespecificationsgivenand apply it on to food item carrying equipment where required	1	2	-	-
<b>PC6.</b> identify and pick out unacceptable/distorted stacking or food carrying equipment from the conveyer belt to ensure quality maintenance.	-	2	-	-
<b>PC7.</b> check and adjust the stacking equipment to avoid blockage/jam	1	2	-	-
<b>PC8.</b> ensure the equipment, used are clean and clear of any	-	2	_	-
Perform basic operations on the machines	8	25	-	-
<b>PC9.</b> identify regulatory keys of the machine and keyfunctions	-	3	-	-







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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC10.</b> inspect/check machines prior to peration for any mechanical inefficiency and technical problem	1	2	-	-
<b>PC11.</b> identify and report if technical maintenance is required	-	2	-	-
<b>PC12.</b> set and adjust parameters of food processing machine in accordance as per the specification given	1	2	-	-
<b>PC13.</b> monitor the various stages of processing operation to maintain quality standards	-	3	-	-
<b>PC14.</b> operate machines effectively and safely while working	1	3	-	-
<b>PC15.</b> check and control line speeds, roduction rates, starting and stopping of equipment, etc. as per the requirements specified	1	2	-	-
<b>PC16.</b> conduct performance check of quipment to maintain effective operating condition	1	2	-	-
<b>PC17.</b> identify and report variation/ technical issues in operating condition	1	2	-	-
<b>PC18.</b> identify anomalies/ variations in operating system and report the issue to the concerned authorised person mmediately	1	2	-	-
<b>PC19.</b> identify the appropriate method to shut down the operating system following the necessary guidelines given in the instructions	1	2	-	-
Monitor all product pieces passing through the allotted assembly line area	5	18	-	-
<b>PC20.</b> monitor pieces passing to confirm that all the items pass through the conveyor belt as per the allotted process	1	2	-	-
<b>PC21.</b> identify and pick out non-conforming product pieces passing through the conveyer belt	-	3	-	-
<b>PC22.</b> place the non-conforming product in a separate box and label the box as per the workplace instruction	1	2	-	-







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#### Theory **Practical** Project Viva Assessment Criteria for Outcomes Marks Marks Marks Marks PC23. identify and report any operating system 3 issues **PC24.** confirm the approved product and direct it to 2 1 the specified belt for packaging PC25. confirm that the outcome product meets the standard quality as per the specification mentioned in 2 the guidelines **PC26.** operate the machine by using the control keys safely and efficiently in line with production requirements machine control keys: start, stop, regulatory and function keys production 1 2 requirements: e.g. line speed, production rate, correct ingredients, recommended mixing proportions, temperature, time control, etc. PC27. shut down the operating system safely and 2 1 correctly following the necessary 7 14 Maintain and clean work area and guipment \_ \_ PC28. perform basic documentation required like 1 2 recording the no of batches, etc. **PC29.** follow workplace hygiene and sanitation practices on the completion of processing activity hygiene and sanitation practices: e.g. clean equipment, hand tools and conveyor belts; wash and dry containers and utensils; regularly wash and 2 1 replace used uniforms, caps, aprons, gloves and shoes; collect & recycle cardboard and trash; report presence of hazardous substance or other chemicals; etc. **PC30.** return used equipment, tools and other utilities to their respective storage as per organizational 1 2 quidelines or policies **PC31.** read and state numerical, alphabetical, graphical and colour indicators and alarms and 1 2 inform as instructed PC32. perform basic documentation required like 1 2 recording the no of batches, etc







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC33.</b> follow workplace hygiene and sanitation practices on the completion of processing activity	1	2	-	-
<b>PC34.</b> return used equipment, tools and other utilities to their respective storage as per organizational guidelines or policies	1	2	-	-
NOS Total	25	75	-	-







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

NOS Code	FIC/N9020
NOS Name	Monitor the food production on a mechanized production line for processed food items
Sector	Food Processing
Sub-Sector	Food Grain Milling, Dairy Products, Meat and Poultry, Fish and Sea Food, Bread and Bakery, Alcoholic Beverages, Aerated Water/Soft Drinks, Soya Food, Packaged Foods
Occupation	Production/Processing
NSQF Level	2
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/N9002: Use basic health and safety practices at a food processing workplace

## Description

This OS unit is about knowledge and practices relating to health, safety and security that candidates need to use in the workplace. It covers responsibilities towards self, others, assets and the environment.

## **Elements and Performance Criteria**

#### Health and safety

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

- **PC1.** use protective clothing/equipment for specific tasks and work conditions protective clothing: coats and aprons; ear plugs or muffs; eye and facial protection; head-wear; mesh aprons; protective boot covers; protective hand and arm covering; protective head and hair covering; uniforms; waterproof clothing; work, safety or waterproof footwear equipment: lifting assistance, respirator
- PC2. state the name and location of people responsible for health and safety in the workplace
- **PC3.** identify job-site hazardous work and state possible causes of risk or accident in the workplace hazards: sharp edged tools; hazardous surfaces(sharp, slippery, uneven, chipped, broken, etc.); physical hazards(working at heights, manual handling, sharp equipment, sharp and piercing objects, excessive noise, confined spaces, obstructions due to unattended carcasses movement along the rails/ conveyors & trolleys, blind turns, poor ventilation, over stacked shelves and packages, etc.) electrical hazards (power supply and points, loose and naked cables and wires, equipment malfunctions, etc.) possible causes of risk and accident: physical actions; listening to and giving instructions; inattention; improper disposal of organic and carcass wastes & fluids; sickness and incapacity (such as drunkenness); health hazards (such as untreated injuries and contagious illness/ zoonotic diseases)
- **PC4.** carry out safe working practices while dealing with hazards to ensure the safety of self and others safe working practices: using protective clothing and equipment; putting up and reading safety signs; handle tools in the correct manner and store and maintain them properly; sterilize tools and equipment; prevent organic material and carcass contamination; disinfect work area, keep work area clear of clutter, spillage and unsafe object lying casually; while working with electricity take all electrical precautions like insulated clothing, adequate equipment insulation, use of control equipment, dry work area, switch off the power supply when not required, etc.; safe lifting and carrying practices; use equipment that is working properly and is well maintained; take due measures for safety while working in confined places, trenches or at heights, etc. including good ventilation, lighting etc.
- **PC5.** state methods of accident prevention in the work environment of the job role methods of accident prevention: training in health and safety procedures; using health and safety procedures; use of equipment and working practices (such as safe carrying procedures); safety notices, advice; instruction from colleagues and supervisors
- **PC6.** state location of general health and safety equipment in the workplace general health and safety equipment: fire extinguishers; first aid equipment; safety instruments and clothing; safety installations(e.g. fire exits, exhaust fans)
- PC7. work safely in and around trenches, elevated places and confined areas
- PC8. handle food and related materials safely using correct procedures







- **PC9.** apply good housekeeping practices at all times good housekeeping practices: clean/tidy work areas, removal/disposal of waste products, protect surfaces, disinfect work areas, clean/ clear drains, sterile knives, pest control
- **PC10.** identify common hazard signs displayed in various areas various areas: on chemical containers; equipment; packages; inside buildings; in open areas and public spaces, etc.
- **PC11.** adhere to relevant food safety policies such as propriety product policy, gloves policy, pest control policy, restrictions on harmful chemicals inside work area during production

#### Fire safety

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

- **PC12.** use the various appropriate fire extinguishers on different types of fires correctly types of fires: class a: e.g. ordinary solid combustibles, such as wood, paper, cloth, plastic, charcoal, etc.; class b: flammable liquids and gases, such as gasoline, propane, diesel fuel, tar, cooking oil, and similar substances; class c: e.g. electrical equipment such asappliances, wiring, breaker panels, etc. (these categories of fires become class a, b, and d fires when the electrical equipment that initiated the fire is no longer receiving electricity); class d: combustible metals such as magnesium, titanium, and sodium (these fires burn at extremely high temperatures and require special suppression agents)
- PC13. demonstrate rescue techniques applied during fire hazard
- **PC14.** demonstrate good housekeeping in order to prevent fire hazards
- PC15. demonstrate the correct use of a fire extinguisher

#### Emergencies, rescue and first-aid procedures

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

- PC16. demonstrate how to free a person from electrocution
- **PC17.** administer appropriate first aid to victims where required e.g. in case of bleeding, burns, choking, electric shock, poisoning, etc.
- PC18. demonstrate basic techniques of bandaging
- **PC19.** respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments
- **PC20.** perform and organize loss minimization or rescue activity during an accident in real or simulated environments
- **PC21.** administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock, before the arrival of emergency services in real or simulated cases
- PC22. demonstrate the artificial respiration and the CRP process
- **PC23.** participate in emergency procedures emergency procedures: raising alarm, safe/efficient, evacuation, correct means of escape, correct assembly point, roll call, correct return to work
- **PC24.** complete a written accident/incident report or dictate a report to another person, and send report to person responsible incident report includes details of: name, date/time of incident, date/time of report, location, environment conditions, persons involved, sequence of events, injuries sustained, damage sustained, actions taken, witnesses, supervisor/manager notified
- PC25. demonstrate correct method to move injured people and others during an emergency

### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:







- **KU1.** names (and job titles if applicable), and where to find, all the people responsible for health and safety in a workplace
- KU2. names and location of documents that refer to health and safety in the workplace
- KU3. meaning of hazards and risks
- **KU4.** health and safety hazards commonly present in the work environment and related precautions
- **KU5.** possible causes of risk, hazard or accident in the workplace and why risk and/or accidents are possible
- KU6. possible causes of risk and accident possible causes of risk and accident: physical actions; listening to and giving instructions; inattention; improper disposal of carcass wastes & fluids; sickness and incapacity (such as drunkenness); health hazards (such as untreated injuries and contagious illness/ zoonotic diseases)
- **KU7.** methods of accident prevention methods of accident prevention: training in health and safety procedures; using health and safety procedures; use of equipment and working practices (such as safe carrying procedures); safety notices, advice; instruction from colleagues and supervisors
- KU8. safe working practices when working with tools and equipment
- KU9. safe working practices while working at various hazardous sites
- KU10. where to find all the general health and safety equipment in the workplace
- KU11. various dangers associated with the use of electrical equipment
- **KU12.** preventative and remedial actions to be taken in the case of exposure to toxic materials exposure: ingested, contact with skin, inhaled preventative action: ventilation, masks, protective clothing/ equipment); remedial action: immediate first aid, report to supervisor toxic materials: solvents, flux, lead
- KU13. importance of using protective clothing/equipment while working
- KU14. adherence to environmental management policies
- KU15. precautionary activities to prevent the fire accident
- **KU16.** various causes of fire causes of fires: heating of metal; spontaneous ignition; sparking; electrical heating; loose fires (smoking, welding, etc.); chemical fires; etc.
- KU17. techniques of using the different fire extinguishers
- KU18. different methods of extinguishing fire
- KU19. different materials used for extinguishing fire materials: sand, water, foam, CO2, dry powder
- KU20. rescue techniques applied during a fire hazard
- KU21. various types of safety signs and what they mean
- **KU22.** appropriate basic first aid treatment relevant to the condition eg. shock, electrical shock, bleeding, breaks to bones, minor burns, resuscitation, poisoning, eye injuries, etc.
- KU23. content of written accident report
- KU24. potential injuries and ill health associated with incorrect manual handing
- KU25. safe lifting and carrying practices
- KU26. personal safety, health and dignity issues relating to the movement of a person by others
- KU27. potential impact to a person who is moved incorrectly

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







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

- GS1. write an accident/incident report in local language or english
- GS2. read and comprehend basic content to read labels, charts, signages
- GS3. read an accident/incident report in local language or english
- GS4. question co-workers appropriately in order to clarify instructions and other issues
- **GS5.** give clear instructions to coworkers, subordinates and others
- **GS6.** make appropriate decisions pertaining to the concerned area of work with respect to intended work objective, span of authority, responsibility, laid down procedure and guidelines
- **GS7.** plan and organize their own work schedule, work area, tools, equipment and materials to maintain decorum and for improved productivity
- GS8. remain congenial while discussing and debating issues with co-workers
- **GS9.** follow appropriate protocols for communication based on situation, hierarchy, organizational culture and practice
- **GS10.** ask for, provide and receive required assistance where possible to ensure achievement of work related objectives
- GS11. thank coworkers for any assistance received
- **GS12.** offer appropriate respect based on mutuality and respect for fellow works man ship and authority
- **GS13.** think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s)
- GS14. identify immediate or temporary solutions to resolve delays
- **GS15.** identify sources of support that can be availed of for problem solving for various kind of problems
- **GS16.** seek appropriate assistance from other sources to resolve problems
- GS17. report problems that you cannot resolve to appropriate authority
- **GS18.** identify cause and effect relations in their area of work
- GS19. use cause and effect relations to anticipate potential problems and their solution







## **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Health and safety	16	31	-	-
<b>PC1.</b> use protective clothing/equipment for specific tasks and work conditions protective clothing: coats and aprons; ear plugs or muffs; eye and facial protection; head-wear; mesh aprons; protective boot covers; protective hand and arm covering; protective head and hair covering; uniforms; waterproof clothing; work, safety or waterproof footwear equipment: lifting assistance, respirator	2	3	-	-
<b>PC2.</b> state the name and location of people responsible for health and safety in the workplace	1	2	-	-
<b>PC3.</b> identify job-site hazardous work and state possible causes of risk or accident in the workplace hazards: sharp edged tools; hazardous surfaces(sharp, slippery, uneven, chipped, broken, etc.); physical hazards(working at heights, manual handling, sharp equipment, sharp and piercing objects, excessive noise, confined spaces, obstructions due to unattended carcasses movement along the rails/ conveyors & trolleys, blind turns, poor ventilation, over stacked shelves and packages, etc.) electrical hazards (power supply and points, loose and naked cables and wires, equipment malfunctions, etc.) possible causes of risk and accident: physical actions; listening to and giving instructions; inattention; improper disposal of organic and carcass wastes & fluids; sickness and incapacity (such as drunkenness); health hazards (such as untreated injuries and contagious illness/ zoonotic diseases)	1	2	_	-







**Transforming the skill landscape** 

#### **Practical Project** Viva Theory Assessment Criteria for Outcomes Marks Marks Marks Marks **PC4.** carry out safe working practices while dealing with hazards to ensure the safety of self and others safe working practices: using protective clothing and equipment; putting up and reading safety signs; handle tools in the correct manner and store and maintain them properly; sterilize tools and equipment; prevent organic material and carcass contamination; disinfect work area, keep work area clear of clutter, spillage and unsafe object lying casually; while working with electricity take all 2 3 electrical precautions like insulated clothing, adequate equipment insulation, use of control equipment, dry work area, switch off the power supply when not required, etc.; safe lifting and carrying practices; use equipment that is working properly and is well maintained; take due measures for safety while working in confined places, trenches or at heights, etc. including good ventilation, lighting etc. **PC5.** state methods of accident prevention in the work environment of the job role methods of accident prevention: training in health and safety procedures; using health and safety procedures; use of equipment 3 and working practices (such as safe carrying procedures); safety notices, advice; instruction from colleagues and supervisors PC6. state location of general health and safety equipment in the workplace general health and safety equipment: fire extinguishers; first aid equipment; 3 safety instruments and clothing; safety installations(e.g. fire exits, exhaust fans) **PC7.** work safely in and around trenches, elevated 2 3 places and confined areas PC8. handle food and related materials safely using 2 3 correct procedures **PC9.** apply good housekeeping practices at all times good housekeeping practices: clean/tidy work areas, removal/disposal of waste products, protect surfaces, 2 3 disinfect work areas, clean/ clear drains, sterile knives, pest control







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC10.</b> identify common hazard signs displayed in various areas various areas: on chemical containers; equipment; packages; inside buildings; in open areas and public spaces, etc.	2	3	-	-
<b>PC11.</b> adhere to relevant food safety policies such as propriety product policy, gloves policy, pest control policy, restrictions on harmful chemicals inside work area during production	2	3	-	-
Fire safety	4	11	-	-
<b>PC12.</b> use the various appropriate fire extinguishers on different types of fires correctly types of fires: class a: e.g. ordinary solid combustibles, such as wood, paper, cloth, plastic, charcoal, etc.; class b: flammable liquids and gases, such as gasoline, propane, diesel fuel, tar, cooking oil, and similar substances; class c: e.g. electrical equipment such asappliances, wiring, breaker panels, etc. (these categories of fires become class a, b, and d fires when the electrical equipment that initiated the fire is no longer receiving electricity); class d: combustible metals such as magnesium, titanium, and sodium (these fires burn at extremely high temperatures and require special suppression agents)	1	3	-	-
<b>PC13.</b> demonstrate rescue techniques applied during fire hazard	1	3	-	-
<b>PC14.</b> demonstrate good housekeeping in order to prevent fire hazards	1	3	-	-
<b>PC15.</b> demonstrate the correct use of a fire extinguisher	1	2	-	-
Emergencies, rescue and first-aid procedures	12	26	-	-
<b>PC16.</b> demonstrate how to free a person from electrocution	1	3	-	-
<b>PC17.</b> administer appropriate first aid to victims where required e.g. in case of bleeding, burns, choking, electric shock, poisoning, etc.	1	3	-	-
PC18. demonstrate basic techniques of bandaging	1	3	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC19.</b> respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments	1	3	-	-
<b>PC20.</b> perform and organize loss minimization or rescue activity during an accident in real or simulated environments	1	3	-	-
<b>PC21.</b> administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock, before the arrival of emergency services in real or simulated cases	1	2	-	-
<b>PC22.</b> demonstrate the artificial respiration and the CRP process	1	2	-	-
<b>PC23.</b> participate in emergency procedures emergency procedures: raising alarm, safe/efficient, evacuation, correct means of escape, correct assembly point, roll call, correct return to work	1	3	-	-
<b>PC24.</b> complete a written accident/incident report or dictate a report to another person, and send report to person responsible incident report includes details of: name, date/time of incident, date/time of report, location, environment conditions, persons involved, sequence of events, injuries sustained, damage sustained, actions taken, witnesses, supervisor/manager notified	2	2	-	-
<b>PC25.</b> demonstrate correct method to move injured people and others during an emergency	2	2	-	-
NOS Total	32	68	-	-







## National Occupational Standards (NOS) Parameters

NOS Code	FIC/N9002
NOS Name	Use basic health and safety practices at a food processing workplace
Sector	Food Processing
Sub-Sector	Fruits and Vegetables, Food Grain Milling, Dairy Products, Meat and Poultry, Fish and Sea Food, Bread and Bakery, Alcoholic Beverages, Aerated Water/Soft Drinks, Soya Food, Packaged Foods
Occupation	Generic
NSQF Level	2
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

## 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
CSC/N1336.Work effectively with others	30	70	-	-	100	30
FIC/N9020.Monitor the food production on a mechanized production line for processed food items	25	75	-	-	100	60
FIC/N9002.Use basic health and safety practices at a food processing workplace	32	68	-	-	100	10
Total	87	213	-	-	300	100







## Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
ISO	International Organization for Standardization
НАССР	Hazard Analysis and Critical Control Point
FSSAI	Food Safety and Standards Authority of India
PPE	Personal Protective Equipment







## 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.