



Food Analyst

Electives: Analysis of packaging material

QP Code: FIC/Q7607

Version: 1.0

NSQF Level: 4

Food Industry Capacity & Skill Initiative || Shriram Bharatiya Kala kendra, 3rd floor, 1, Copernicus Marg, Mandi House, New Delhi
Delhi 110001 || email:santosh@ficsi.in

Contents

FIC/Q7607: Food Analyst	3
<i>Brief Job Description</i>	3
Applicable National Occupational Standards (NOS)	3
<i>Compulsory NOS</i>	3
<i>Elective : Analysis of packaging material</i>	3
<i>Qualification Pack (QP) Parameters</i>	3
FIC/N7621: Ensure preparedness for testing process	5
FIC/N7622: Carry out chemical, physical, microbiological, and sensory testing of food	12
FIC/N7623: Carry out compilation and record observation	19
FIC/N9901: Implement health and safety practices at the workplace	23
DGT/VSQ/N0102: Employability Skills (60 Hours)	29
FIC/N7624: Carry out analysis of packaging material used for food	37
Assessment Guidelines and Weightage	42
<i>Assessment Guidelines</i>	42
<i>Assessment Weightage</i>	43
Acronyms	44
Glossary	45

FIC/Q7607: Food Analyst

Brief Job Description

A food analyst is responsible for conducting qualitative and quantitative tests to determine the physical and chemical properties of food. They are also responsible for recording and compiling the test results, preparing charts and reports as well preparing and incubating plates with cultures. They define quality assurance targets and procedures and see to their maintenance and continued improvement by reviewing targets, protocols, supplies, processes, equipment, and technologies for quality standards.

Personal Attributes

The job requires the individual to have deductive reasoning skills to listen, understand and communicate effectively as well as to be able to apply general rules to specific problems.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [FIC/N7621: Ensure preparedness for testing process](#)
2. [FIC/N7622: Carry out chemical, physical, microbiological, and sensory testing of food](#)
3. [FIC/N7623: Carry out compilation and record observation](#)
4. [FIC/N9901: Implement health and safety practices at the workplace](#)
5. [DGT/VSQ/N0102: Employability Skills \(60 Hours\)](#)

Electives (mandatory to select at least one):

Elective : [Analysis of packaging material](#)

This elective is about analysis of packaging material used for food

1. [FIC/N7624: Carry out analysis of packaging material used for food](#)

Qualification Pack (QP) Parameters

Sector	Food Processing
Sub-Sector	Generic
Occupation	Quality Analysis/ Assurance

Country	India
NSQF Level	4
Credits	16
Aligned to NCO/ISCO/ISIC Code	NCO-2022/NIL
Minimum Educational Qualification & Experience	<p>12th grade Pass OR Completed 1st year of 3-year diploma (after 10th) and pursuing regular diploma OR 10th grade pass and pursuing continuous schooling OR 10th grade pass with 2 year NTC plus 1 year NAC OR 10th grade pass with 2 Years of experience relevant experience OR Previous relevant Qualification of NSQF Level (3 with minimum education as 5th grade pass) with 2 Years of experience relevant experience OR Previous relevant Qualification of NSQF Level (3.5) with 1 Year of experience relevant experience</p>
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	NA
NSQC Approval Date	
Version	1.0

FIC/N7621: Ensure preparedness for testing process

Description

This NOS is about preparing facility for testing food products and packaging as per regulatory and product specific testing requirements.

Scope

The scope covers the following :

- Organize lab and manage resources to carry out testing
- Plan for testing process

Elements and Performance Criteria

Organize lab and manage resources to carry out testing

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

- PC1.** set up and manage facilities for chemical, physical, microbiological, and sensory assessment of food and drink
- PC2.** set up facilities following the assessment schedule and in accordance with organizational procedures for each assessment session
- PC3.**
 - arrange to remove all undesirable distractions from the testing facility
 - Undesirable distractions - Eating or drinking in labs increases risks for contamination and attracting pests, using headphones to listen to music, storing food or beverages in the refrigerators where food samples are stored, etc.
- PC4.** apply problem-solving techniques to manage testing process, rectify any problems ongoing, and record actions taken
- PC5.** transport test samples from preparation area to testing facility and store appropriately
- PC6.** ensure labeling and grouping of required test samples in accordance with organizational procedures
- PC7.** undertake to present and layout all test samples correctly, ensuring samples are accessible to team and using organizational procedures
- PC8.** arrange necessary resources required for the testing e.g., distilled water, chemicals, equipment, etc.
- PC9.** ensure to provide all correct paperwork, prompt sheets, and feedback sheets to participants using organizational protocol
- PC10.** ensure facilities are clear in accordance with operational instructions and organizational protocol
- PC11.** collect results and data for further evaluation and forward them to the appropriate member of staff
- PC12.** ascertain disposal of discarded or left-over samples in accordance with organizational procedures from the testing facilities with work areas left clean and ready for use

Plan for testing process

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

- PC13.** determine the features of the product to be tested in consultation with appropriate personnel

- PC14.** develop a hypothesis for each assessment in accordance with organisational protocol
- PC15.** ensure the facility and layout is designed needed for each assessment
- PC16.** check that all equipment shall meet specifications relevant to method and shall be calibrated and/or verified against the specifications
- PC17.** ensure laboratory have documented procedures for handling, transport, storage, and use of measuring equipment to prevent contamination or deterioration
- PC18.**
- arrange for regular maintenance and service of all critical equipment
 - Equipment: refrigerators, freezers where samples and certified reference samples are stored, ovens, incubators, water baths, centrifuges, pH meters, balances, analytical instruments such as chromatographs and spectrometers, etc.
- PC19.** develop a methodology for assessing products on a case-by-case basis in accordance with organisational protocol
- PC20.** plan how panel members and products will be grouped in accordance with organisational protocol
- PC21.** schedule staff time and facilities for the tests to be carried out
- PC22.** address issues of validity and ethics for the chosen method for testing
- PC23.** communicate plans to relevant staff and amend plans in response to feedback and agree on solution
- PC24.** analyze results from the sensory assessment of products by legal and regulatory requirements, hygiene and environmental standards, and instructions only
- PC25.** collect and review responses from panel members in accordance with organisational protocol
- PC26.** determine an appropriate method for organising and breaking down responses
- PC27.** test hypothesis based on responses and make a recommendation for the organisation based on results

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** legislation, regulations, and standards to be followed for food testing about facility and production requirements
- KU2.** organizational policy for reporting and documentation
- KU3.** procedure to set up testing facility
- KU4.** applicable FSSAI guidelines to be followed for the establishment of a testing facility
- KU5.** material and equipment requirements for food testing process
- KU6.** procedure to inspect procured material and equipment for quality
- KU7.** ways to test various ingredients and products
- KU8.** applicability and capacity of various equipment used for artisanal production
- KU9.** various calculations performed cost estimations and their optimization techniques
- KU10.** vendor management process
- KU11.** how to analyse performance of self and identify gaps for improvement
- KU12.** importance of time management
- KU13.** how to prepare a plan for carrying out various activities as per task requirements
- KU14.** steps followed to operate a computer and its applications

- KU15.** features of online banking and how to transact using various online systems safely
- KU16.** information to be contained in a business report
- KU17.** importance of entrepreneurial programs, how to expand businesses and generate employment opportunities
- KU18.** recognize the most relevant factors (chemical, physical, environmental etc) that can alter the food during its storage
- KU19.** monitor stocks of food analysis laboratories. Order supplies to keep laboratories well furnished
- KU20.** interpret data from different sources, like market data, scientific papers, and customers requirements in order to research development and innovation in food sector
- KU21.** access risks associated to physical, chemical & biological hazards in laboratory
- KU22.** investigate customer complaints and perform corrective and preventive actions
- KU23.** avoid waste of resources
- KU24.** participate in proficiency testing
- KU25.** calculate uncertainty of measurement

Generic Skills (GS)

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

- GS1.** read and interpret information such as standards, policies, forms, etc.
- GS2.** communicate with others effectively
- GS3.** plan and prioritize tasks as per work requirements
- GS4.** analyze and report variances promptly
- GS5.** maintain good documentation and laboratory practices

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Organize lab and manage resources to carry out testing</i>	11	32	-	-
PC1. set up and manage facilities for chemical, physical, microbiological, and sensory assessment of food and drink	-	-	-	-
PC2. set up facilities following the assessment schedule and in accordance with organizational procedures for each assessment session	-	-	-	-
PC3. <ul style="list-style-type: none"> • arrange to remove all undesirable distractions from the testing facility • Undesirable distractions – Eating or drinking in labs increases risks for contamination and attracting pests, using headphones to listen to music, storing food or beverages in the refrigerators where food samples are stored, etc. 	-	-	-	-
PC4. apply problem-solving techniques to manage testing process, rectify any problems ongoing, and record actions taken	-	-	-	-
PC5. transport test samples from preparation area to testing facility and store appropriately	-	-	-	-
PC6. ensure labeling and grouping of required test samples in accordance with organizational procedures	-	-	-	-
PC7. undertake to present and layout all test samples correctly, ensuring samples are accessible to team and using organizational procedures	-	-	-	-
PC8. arrange necessary resources required for the testing e.g., distilled water, chemicals, equipment, etc.	-	-	-	-
PC9. ensure to provide all correct paperwork, prompt sheets, and feedback sheets to participants using organizational protocol	-	-	-	-
PC10. ensure facilities are clear in accordance with operational instructions and organizational protocol	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. collect results and data for further evaluation and forward them to the appropriate member of staff	-	-	-	-
PC12. ascertain disposal of discarded or left-over samples in accordance with organizational procedures from the testing facilities with work areas left clean and ready for use	-	-	-	-
<i>Plan for testing process</i>	16	41	-	-
PC13. determine the features of the product to be tested in consultation with appropriate personnel	-	-	-	-
PC14. develop a hypothesis for each assessment in accordance with organisational protocol	-	-	-	-
PC15. ensure the facility and layout is designed needed for each assessment	-	-	-	-
PC16. check that all equipment shall meet specifications relevant to method and shall be calibrated and/or verified against the specifications	-	-	-	-
PC17. ensure laboratory have documented procedures for handling, transport, storage, and use of measuring equipment to prevent contamination or deterioration	-	-	-	-
PC18. <ul style="list-style-type: none"> • arrange for regular maintenance and service of all critical equipment • Equipment: refrigerators, freezers where samples and certified reference samples are stored, ovens, incubators, water baths, centrifuges, pH meters, balances, analytical instruments such as chromatographs and spectrometers, etc. 	-	-	-	-
PC19. develop a methodology for assessing products on a case-by-case basis in accordance with organisational protocol	-	-	-	-
PC20. plan how panel members and products will be grouped in accordance with organisational protocol	-	-	-	-
PC21. schedule staff time and facilities for the tests to be carried out	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC22. address issues of validity and ethics for the chosen method for testing	-	-	-	-
PC23. communicate plans to relevant staff and amend plans in response to feedback and agree on solution	-	-	-	-
PC24. analyze results from the sensory assessment of products by legal and regulatory requirements, hygiene and environmental standards, and instructions only	-	-	-	-
PC25. collect and review responses from panel members in accordance with organisational protocol	-	-	-	-
PC26. determine an appropriate method for organising and breaking down responses	-	-	-	-
PC27. test hypothesis based on responses and make a recommendation for the organisation based on results	-	-	-	-
NOS Total	27	73	-	-

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N7621
NOS Name	Ensure preparedness for testing process
Sector	Food Processing
Sub-Sector	Generic
Occupation	Quality Analysis/ Assurance
NSQF Level	4
Credits	4
Version	1.0
Next Review Date	NA

FIC/N7622: Carry out chemical, physical, microbiological, and sensory testing of food

Description

This NOS unit is about performing chemical, physical, microbiological, and sensory testing of food as per required regulatory standards

Scope

The scope covers the following :

- Perform chemical and physical analysis
- Carry out microbiological testing
- Perform sensory and statistical analysis
- Perform post testing activities

Elements and Performance Criteria

Perform chemical and physical analysis

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

- PC1.** ensure the temperature requirement as per type of product and its specific analysis method
- PC2.** inspect and ensure the cleanliness of the workplace
- PC3.** assess the nutritional characteristics of different food by determining appropriate test method per sample Test method: chromatography, spectroscopy, ELISA, etc.
- PC4.**
 - ensure type of pre-treatment method used for food samples
 - Pre-Treatment methods: Chemical - liquid phase and gas phase, Physical - thermal and non-thermal
- PC5.** collect samples for analysis
- PC6.** preserve collected and labelled samples of raw materials and other food products
- PC7.** blend or mix ingredients to make reagents to carry out the analysis for the betterment of the blend
- PC8.** conduct wet digestion method to add oxidizing strong acid to form a non-volatile inorganic compound for analysis and determination Strong acid: nitric acid, perchloric acid, sulfuric acid, etc
- PC9.** ensure quality assurance measures are taken to ensure that the test results meet the specified quality requirements Measure: establishment of a quality assurance system, effective testing methods, and implementation of the required analytical quality control procedures

Carry out microbiological testing

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

- PC10.** ensure the equipment and containers are sterilized before use, rooms of the laboratory are cleaned and disinfected, and hands are carefully washed and sanitized
- PC11.** analyze by growing microorganisms in an artificial environment under well-defined conditions (process is called cultivation) to get microbial culture

- PC12.** substantiate properties of single organism (all the cells in a population), a pure culture must be established, containing only one kind (species) of microorganism to be characterized
- PC13.** observe isolation effectively—the separation of a particular species in pure culture from the mixed populations that exist in nature

Perform sensory and statistical analysis

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

- PC14.** assess the various characteristics of food to evaluate both new products and established products
- PC15.** ensure products are tested scientifically and with as much objectivity as is possible
- PC16.** identify through triangle tests which sample is different in three coded samples (two of which are the same and one of which is different)
- PC17.** perform comparative judgment through paired comparison tests with a pair of coded samples
- PC18.** ensure ranking samples tests with regards to intensity of a particular attribute by testing at least three coded samples to assess the optimum amount of taste quality
- PC19.** assess changes in products over time to establish optimum shelf-life
- PC20.**
- assess appearance and odour
 - appearance: both positive such as the sheen on a piece of chocolate and negative such as “bloom” on chocolate
 - Odour: both positive such as a caramel aroma and negative such as rancidity

Perform post testing activities

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

- PC21.** ensure all equipment being used should be kept under permanent control of the laboratory and should be capable of in context of the test method
- PC22.** ensure all equipment is calibrated and sanitized either daily or at a periodically interval as the case may be depending upon the requirement
- PC23.**
- ascertain instruction manual, operation manual, and other details of the equipment
 - Details of the equipment: calibration, due date of calibration, safety precaution, etc. must be available at the side of the equipment
- PC24.** ensure room should be dust-free, air-conditioned with controlled humidity

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** policies and procedures about obtaining samples, handling sophisticated samples, equipment, and their maintenance
- KU2.** various samples or products and processes for obtaining them
- KU3.** factors for the estimation of material and manpower requirements
- KU4.** considerations for planning batch size and equipment utilisation analysis
- KU5.** tools and equipment used for various testing techniques
- KU6.** procedure to check the quality of products and samples
- KU7.** various faults that can occur to the tools, equipment, and machinery used in the process
- KU8.**
- various types of cleaning agents and tools used for the upkeep of tools, equipment, and machinery
 - Preventive maintenance & calibration status of equipment

Generic Skills (GS)

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

- GS1.** record the information such as sample obtained, batch details, etc. as and when required during the process
- GS2.** plan and prioritize various tasks
- GS3.** organize all process/equipment manuals to access information easily
- GS4.** concentrate for long period and pay close attention to detail

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Perform chemical and physical analysis</i>	10	30	-	-
PC1. ensure the temperature requirement as per type of product and its specific analysis method	-	-	-	-
PC2. inspect and ensure the cleanliness of the workplace	-	-	-	-
PC3. assess the nutritional characteristics of different food by determining appropriate test method per sample Test method: chromatography, spectroscopy, ELISA, etc.	-	-	-	-
PC4. <ul style="list-style-type: none"> • ensure type of pre-treatment method used for food samples • Pre-Treatment methods: Chemical – liquid phase and gas phase, Physical – thermal and non-thermal 	-	-	-	-
PC5. collect samples for analysis	-	-	-	-
PC6. preserve collected and labelled samples of raw materials and other food products	-	-	-	-
PC7. blend or mix ingredients to make reagents to carry out the analysis for the betterment of the blend	-	-	-	-
PC8. conduct wet digestion method to add oxidizing strong acid to form a non-volatile inorganic compound for analysis and determination Strong acid: nitric acid, perchloric acid, sulfuric acid, etc	-	-	-	-
PC9. ensure quality assurance measures are taken to ensure that the test results meet the specified quality requirements Measure: establishment of a quality assurance system, effective testing methods, and implementation of the required analytical quality control procedures	-	-	-	-
<i>Carry out microbiological testing</i>	4	12	-	-
PC10. ensure the equipment and containers are sterilized before use, rooms of the laboratory are cleaned and disinfected, and hands are carefully washed and sanitized	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. analyze by growing microorganisms in an artificial environment under well-defined conditions (process is called cultivation) to get microbial culture	-	-	-	-
PC12. substantiate properties of single organism (all the cells in a population), a pure culture must be established, containing only one kind (species) of microorganism to be characterized	-	-	-	-
PC13. observe isolation effectively—the separation of a particular species in pure culture from the mixed populations that exist in nature	-	-	-	-
<i>Perform sensory and statistical analysis</i>	7	21	-	-
PC14. assess the various characteristics of food to evaluate both new products and established products	-	-	-	-
PC15. ensure products are tested scientifically and with as much objectivity as is possible	-	-	-	-
PC16. identify through triangle tests which sample is different in three coded samples (two of which are the same and one of which is different)	-	-	-	-
PC17. perform comparative judgment through paired comparison tests with a pair of coded samples	-	-	-	-
PC18. ensure ranking samples tests with regards to intensity of a particular attribute by testing at least three coded samples to assess the optimum amount of taste quality	-	-	-	-
PC19. assess changes in products over time to establish optimum shelf-life	-	-	-	-
PC20. <ul style="list-style-type: none"> • assess appearance and odour • appearance: both positive such as the sheen on a piece of chocolate and negative such as “bloom” on chocolate • Odour: both positive such as a caramel aroma and negative such as rancidity 	-	-	-	-
<i>Perform post testing activities</i>	4	12	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC21. ensure all equipment being used should be kept under permanent control of the laboratory and should be capable of in context of the test method	-	-	-	-
PC22. ensure all equipment is calibrated and sanitized either daily or at a periodically interval as the case may be depending upon the requirement	-	-	-	-
PC23. <ul style="list-style-type: none"> • ascertain instruction manual, operation manual, and other details of the equipment • Details of the equipment: calibration, due date of calibration, safety precaution, etc. must be available at the side of the equipment 	-	-	-	-
PC24. ensure room should be dust-free, air-conditioned with controlled humidity	-	-	-	-
NOS Total	25	75	-	-

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N7622
NOS Name	Carry out chemical, physical, microbiological, and sensory testing of food
Sector	Food Processing
Sub-Sector	Generic
Occupation	Quality Analysis/ Assurance
NSQF Level	4
Credits	6
Version	1.0
Next Review Date	NA

FIC/N7623: Carry out compilation and record observation

Description

This NOS unit is about performing compiling the analysis and test results and to prepare the certificate of analysis

Scope

The scope covers the following :

- Compile results and discussion
- Prepare certificate of analysis (COA)

Elements and Performance Criteria

Compile results and discussion

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

- PC1.** record all basic information on the worksheet before analysis is initiated
- PC2.** ensure no entries should be erased or overwritten if an incorrect entry is made
- PC3.** ensure to draw a line through the incorrect entry; write above it the correct figure or word
- PC4.** assure data should not be discarded without explanation
- PC5.** make sure if method has not been published or is not covered by SOP it should be written in full on the worksheet or as an attachment to the worksheet
- PC6.** consolidate analysis incase more than one analyst is involved, and it must indicate which analyst performed which segment of the analysis
- PC7.** check analysis worksheet for accuracy, completeness, and compatibility with other documents by the supervisor or the designated representative
- PC8.** ensure calculations are clearly shown with the proper number of significant figures used

Prepare certificate of analysis (COA)

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

- PC9.** ensure COA conveys information from a material supplier to a material user about the identity, quality, and purity of that specific material
- PC10.** assure COA are collated for audit process
- PC11.** assess whether the COA contains supplier Information, materials identification, transportation data, evidence of conformance, signature data

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** policies and procedures related to compilation and verification of COA
- KU2.** tasks to be performed and processes involved in analysis of food
- KU3.** types of tools, equipment, and machinery used in various analysis
- KU4.** methods to measure parameters such as sugar content, pH, titratable acidity, etc. in food items

- KU5.** various types of chemical analysis and tasting for identifying the stage of food quality
- KU6.** types of information that are documented and the organisational practices for documenting them
- KU7.** Food Safety and Standards Authority of India (FSSAI) guidelines for testing and recording observations
- KU8.** importance of delivery notes in the dispatch process
- KU9.** SOP to record the information (such as type of samples tested, characteristics, batches produced, quantity to be dispatched, etc.) as required in the job

Generic Skills (GS)

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

- GS1.** plan and prioritize tasks effectively
- GS2.** communicate with others effectively
- GS3.** organize all the resources appropriately such as samples, tools, equipment, process charts, etc.
- GS4.** analyze problems as encountered during the work process and take suitable action against it

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Compile results and discussion</i>	24	48	-	-
PC1. record all basic information on the worksheet before analysis is initiated	-	-	-	-
PC2. ensure no entries should be erased or overwritten if an incorrect entry is made	-	-	-	-
PC3. ensure to draw a line through the incorrect entry; write above it the correct figure or word	-	-	-	-
PC4. assure data should not be discarded without explanation	-	-	-	-
PC5. make sure if method has not been published or is not covered by SOP it should be written in full on the worksheet or as an attachment to the worksheet	-	-	-	-
PC6. consolidate analysis incase more than one analyst is involved, and it must indicate which analyst performed which segment of the analysis	-	-	-	-
PC7. check analysis worksheet for accuracy, completeness, and compatibility with other documents by the supervisor or the designated representative	-	-	-	-
PC8. ensure calculations are clearly shown with the proper number of significant figures used	-	-	-	-
<i>Prepare certificate of analysis (COA)</i>	10	18	-	-
PC9. ensure COA conveys information from a material supplier to a material user about the identity, quality, and purity of that specific material	-	-	-	-
PC10. assure COA are collated for audit process	-	-	-	-
PC11. assess whether the COA contains supplier Information, materials identification, transportation data, evidence of conformance, signature data	-	-	-	-
NOS Total	34	66	-	-

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N7623
NOS Name	Carry out compilation and record observation
Sector	Food Processing
Sub-Sector	Generic
Occupation	Quality Analysis/ Assurance
NSQF Level	4
Credits	3
Version	1.0
Next Review Date	NA

FIC/N9901: Implement health and safety practices at the workplace

Description

This unit is about following health and safety procedures at the workplace.

Scope

The scope covers the following :

- Ensure food safety and personal hygiene
- Follow safety measures to avoid accidents
- Follow emergency procedures
- Manage infection control

Elements and Performance Criteria

Ensure food safety and personal hygiene

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

- PC1.** follow relevant practices to avoid cross contamination at all stages of food processing operations
- PC2.** follow organisational procedures for handling items that may cause allergic reactions
- PC3.** follow Good Manufacturing Practices (GMP) at the workplace. Good Manufacturing Practices: location and layout (ergonomics), cleaning and sanitation, equipment and containers, pest control, facilities (lighting, water supply, drainage and waste disposal, air quality and ventilation), food storage, transportation, and distribution (Source: Schedule IV, FSSAI Licensing and Registration, 2011)
- PC4.** follow Good Hygiene Practices (GHP) at the workplace appropriately. Good Hygiene Practices: use of gloves, hairnets, masks, ear plugs, goggles, shoes etc; washing hands regularly; treating injuries such as cuts, boils, skin infections and grazes; preventive health check-ups ; getting vaccinated whenever required. (Source: Schedule IV, FSSAI Licensing and Registration, 2011)

Follow safety measures to avoid accidents

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

- PC5.** use protective clothing/equipment for specific tasks and work conditions
- PC6.** identify job-site hazardous work and possible causes of risk or accident at the workplace
- PC7.** deal with hazards safely and appropriately to ensure safety of self and others as per organisational protocol
- PC8.** use various types of fire extinguishers effectively
- PC9.** respond promptly and appropriately to an accident situation or medical emergency
- PC10.** provide cardio-pulmonary resuscitation (CPR) as per the requirement (e.g. cardiac arrest)

Follow emergency procedures

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

- PC11.** follow workplace emergency and evacuation procedures
- PC12.** use safe methods to free a person from electrocution

PC13. administer appropriate first aid to victims in case of cuts, bleeding, burns, choking, electric shock, poisoning etc.

Manage infection control

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

PC14. use appropriate disinfectants to disinfect the work area and equipment as per organisational protocol

PC15. ensure personal hygiene by washing hands regularly using alcohol based sanitisers and wearing personal protective equipment (PPE)

PC16. report illness of self and others to the supervisor or concerned authority

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. meaning of hazards and risks

KU2. possible causes of risk, hazard or accident in the workplace

KU3. where to find all the general health and safety equipment in the workplace

KU4. health and safety policy and procedures of the organization

KU5. health and safety hazards commonly present in the work environment

KU6. work practices and precautions used to control and prevent risks, hazards and accidents

KU7. applicable standards and regulations as listed in The Food Safety and Standards Act, 2006

KU8. importance of each personal protective equipment used such as eye protection, hard hats, gloves apron, rubber boots, etc.

KU9. importance of ensuring personal hygiene at the workplace

KU10. ways to prevent cross contamination at the workplace

KU11. importance of storing food at specified temperatures

KU12. various dangers associated with the use of electrical and other equipment

KU13. preventive and remedial actions to be taken in the case of exposure to toxic materials

KU14. various causes of fire and the ways to prevent them

KU15. techniques of using the different fire extinguishers

KU16. procedure followed for providing cardio-pulmonary resuscitation (CPR) to the affected

KU17. rescue techniques applied during a fire hazard

KU18. various types of safety signs and what they mean

KU19. workplace emergency and evacuation procedures

KU20. appropriate basic first aid treatment relevant to the condition e.g. shock, electrical shock, bleeding, breaks to bones, minor burns, resuscitation, poisoning, eye injuries

KU21. potential injuries and ill health conditions associated with incorrect manual handling

KU22. safe lifting and carrying practices

KU23. safe practices to be followed for ensuring sanitisation of self and work area

KU24. procedure for storing the sanitising materials appropriately

Generic Skills (GS)

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

- GS1.** write an accident/incident report in local language or English
- GS2.** read and comprehend basic content to read labels, charts, signages, symbols and product manuals
- GS3.** communicate with coworkers appropriately in order to clarify instructions and other issues
- GS4.** make appropriate decisions pertaining to the concerned area of work regarding the work objective, span of authority, responsibility, laid down procedure and guidelines
- GS5.** plan and organize the work schedule, work area, tools, equipment and materials for improved productivity
- GS6.** identify probable solutions to the problems in hand and evaluate them
- GS7.** seek official and authorised sources of help and guidance to resolve problems that cannot be solved at one's level of authority

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Ensure food safety and personal hygiene</i>	7	19	-	-
PC1. follow relevant practices to avoid cross contamination at all stages of food processing operations	1	4	-	-
PC2. follow organisational procedures for handling items that may cause allergic reactions	1	4	-	-
PC3. follow Good Manufacturing Practices (GMP) at the workplace. Good Manufacturing Practices: location and layout (ergonomics), cleaning and sanitation, equipment and containers, pest control, facilities (lighting, water supply, drainage and waste disposal, air quality and ventilation), food storage, transportation, and distribution (Source: Schedule IV, FSSAI Licensing and Registration, 2011)	3	7	-	-
PC4. follow Good Hygiene Practices (GHP) at the workplace appropriately. Good Hygiene Practices: use of gloves, hairnets, masks, ear plugs, goggles, shoes etc; washing hands regularly; treating injuries such as cuts, boils, skin infections and grazes; preventive health check-ups ; getting vaccinated whenever required. (Source: Schedule IV, FSSAI Licensing and Registration, 2011)	2	4	-	-
<i>Follow safety measures to avoid accidents</i>	11	24	-	-
PC5. use protective clothing/equipment for specific tasks and work conditions	2	4	-	-
PC6. identify job-site hazardous work and possible causes of risk or accident at the workplace	2	4	-	-
PC7. deal with hazards safely and appropriately to ensure safety of self and others as per organisational protocol	2	4	-	-
PC8. use various types of fire extinguishers effectively	2	4	-	-
PC9. respond promptly and appropriately to an accident situation or medical emergency	1	4	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. provide cardio-pulmonary resuscitation (CPR) as per the requirement (e.g. cardiac arrest)	2	4	-	-
<i>Follow emergency procedures</i>	6	12	-	-
PC11. follow workplace emergency and evacuation procedures	2	4	-	-
PC12. use safe methods to free a person from electrocution	2	4	-	-
PC13. administer appropriate first aid to victims in case of cuts, bleeding, burns, choking, electric shock, poisoning etc.	2	4	-	-
<i>Manage infection control</i>	6	15	-	-
PC14. use appropriate disinfectants to disinfect the work area and equipment as per organisational protocol	3	7	-	-
PC15. ensure personal hygiene by washing hands regularly using alcohol based sanitisers and wearing personal protective equipment (PPE)	1	4	-	-
PC16. report illness of self and others to the supervisor or concerned authority	2	4	-	-
NOS Total	30	70	-	-

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N9901
NOS Name	Implement health and safety practices at the workplace
Sector	Food Processing
Sub-Sector	Generic
Occupation	Generic
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	24/02/2022
Next Review Date	19/07/2023
NSQ Clearance Date	19/01/2023

DGT/VSQ/N0102: Employability Skills (60 Hours)

Description

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

Scope

The scope covers the following :

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

Elements and Performance Criteria

Introduction to Employability Skills

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

- PC1.** identify employability skills required for jobs in various industries
- PC2.** identify and explore learning and employability portals

Constitutional values - Citizenship

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

- PC3.** recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.
- PC4.** follow environmentally sustainable practices

Becoming a Professional in the 21st Century

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

- PC5.** recognize the significance of 21st Century Skills for employment
- PC6.** practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life

Basic English Skills

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

- PC7.** use basic English for everyday conversation in different contexts, in person and over the telephone
- PC8.** read and understand routine information, notes, instructions, mails, letters etc. written in English
- PC9.** write short messages, notes, letters, e-mails etc. in English

Career Development & Goal Setting

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

- PC10.** understand the difference between job and career
- PC11.** prepare a career development plan with short- and long-term goals, based on aptitude

Communication Skills

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

- PC12.** follow verbal and non-verbal communication etiquette and active listening techniques in various settings
- PC13.** work collaboratively with others in a team

Diversity & Inclusion

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

- PC14.** communicate and behave appropriately with all genders and PwD
- PC15.** escalate any issues related to sexual harassment at workplace according to POSH Act

Financial and Legal Literacy

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

- PC16.** select financial institutions, products and services as per requirement
- PC17.** carry out offline and online financial transactions, safely and securely
- PC18.** identify common components of salary and compute income, expenses, taxes, investments etc
- PC19.** identify relevant rights and laws and use legal aids to fight against legal exploitation

Essential Digital Skills

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

- PC20.** operate digital devices and carry out basic internet operations securely and safely
- PC21.** use e- mail and social media platforms and virtual collaboration tools to work effectively
- PC22.** use basic features of word processor, spreadsheets, and presentations

Entrepreneurship

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

- PC23.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
- PC24.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
- PC25.** identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity

Customer Service

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

- PC26.** identify different types of customers
- PC27.** identify and respond to customer requests and needs in a professional manner.
- PC28.** follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

- PC29.** create a professional Curriculum vitae (Résumé)
- PC30.** search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively
- PC31.** apply to identified job openings using offline /online methods as per requirement
- PC32.** answer questions politely, with clarity and confidence, during recruitment and selection
- PC33.** identify apprenticeship opportunities and register for it as per guidelines and requirements

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** need for employability skills and different learning and employability related portals
- KU2.** various constitutional and personal values
- KU3.** different environmentally sustainable practices and their importance
- KU4.** Twenty first (21st) century skills and their importance
- KU5.** how to use English language for effective verbal (face to face and telephonic) and written communication in formal and informal set up
- KU6.** importance of career development and setting long- and short-term goals
- KU7.** about effective communication
- KU8.** POSH Act
- KU9.** Gender sensitivity and inclusivity
- KU10.** different types of financial institutes, products, and services
- KU11.** how to compute income and expenditure
- KU12.** importance of maintaining safety and security in offline and online financial transactions
- KU13.** different legal rights and laws
- KU14.** different types of digital devices and the procedure to operate them safely and securely
- KU15.** how to create and operate an e- mail account and use applications such as word processors, spreadsheets etc.
- KU16.** how to identify business opportunities
- KU17.** types and needs of customers
- KU18.** how to apply for a job and prepare for an interview
- KU19.** apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

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

- GS1.** read and write different types of documents/instructions/correspondence
- GS2.** communicate effectively using appropriate language in formal and informal settings
- GS3.** behave politely and appropriately with all
- GS4.** how to work in a virtual mode

- GS5.** perform calculations efficiently
- GS6.** solve problems effectively
- GS7.** pay attention to details
- GS8.** manage time efficiently
- GS9.** maintain hygiene and sanitization to avoid infection

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. identify employability skills required for jobs in various industries	-	-	-	-
PC2. identify and explore learning and employability portals	-	-	-	-
<i>Constitutional values - Citizenship</i>	1	1	-	-
PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
PC4. follow environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	2	4	-	-
PC5. recognize the significance of 21st Century Skills for employment	-	-	-	-
PC6. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC7. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
PC9. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
<i>Career Development & Goal Setting</i>	1	2	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. understand the difference between job and career	-	-	-	-
PC11. prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
<i>Communication Skills</i>	2	2	-	-
PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
PC13. work collaboratively with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	2	-	-
PC14. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC15. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
<i>Financial and Legal Literacy</i>	2	3	-	-
PC16. select financial institutions, products and services as per requirement	-	-	-	-
PC17. carry out offline and online financial transactions, safely and securely	-	-	-	-
PC18. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
<i>Essential Digital Skills</i>	3	4	-	-
PC20. operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
PC22. use basic features of word processor, spreadsheets, and presentations	-	-	-	-
<i>Entrepreneurship</i>	2	3	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
<i>Customer Service</i>	1	2	-	-
PC26. identify different types of customers	-	-	-	-
PC27. identify and respond to customer requests and needs in a professional manner.	-	-	-	-
PC28. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	2	3	-	-
PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC31. apply to identified job openings using offline /online methods as per requirement	-	-	-	-
PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
NOS Total	20	30	-	-

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0102
NOS Name	Employability Skills (60 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	4
Credits	2
Version	1.0
Last Reviewed Date	NA
Next Review Date	28/02/2026
NSQC Clearance Date	28/02/2023

FIC/N7624: Carry out analysis of packaging material used for food

Description

This NOS unit is about analysis of packaging material used for food products

Scope

The scope covers the following :

- Organize packaging material for testing
- Perform testing procedure
- Prepare analysis reports

Elements and Performance Criteria

Organize packaging material for testing

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

- PC1.** compare current supply of material with the quality of that offered for the first time, also regular checking of uniformity in new supplies of packaging materials
- PC2.** check quality during production of packaging materials
- PC3.**
 - evaluate suitability of packaging material for a certain specific purpose
 - Purpose: protection against mechanical or climatic hazards
- PC4.** evaluate packaging material in standard atmospheric conditions
- PC5.** ensure samples reach equilibrium before evaluation which normally takes 24 hours
- PC6.** ensure that climate has had its effect on the specimen by checking moisture content of test specimen
- PC7.** ensure laboratories maintains standard atmospheric conditions and no test is considered official if conducted under any other conditions

Perform testing procedure

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

- PC8.** ensure physical properties are checked in accordance with a particular basis weight or bulk in Grammage or GSM paper test method
- PC9.** check samples are cut by selecting the suitable template considering the type of the sample
- PC10.**
 - check thickness properties for routine control
 - Thickness Properties: tensile strength, sealability, and seal strength, moisture, gas, and light barrier properties
- PC11.** determine bursting strength of paper and paperboard to assess both strength and toughness of the material
- PC12.** measure energy absorbed by the test sample in propagating a tear that has already been initiated by cutting a small nick in the test piece in tear strength test
- PC13.** measure amount of water absorbed by the sample during penetration from one side to another in Water Penetration-cobb test
- PC14.** protect hygroscopic food from oxygenated water vapour pick in water vapour permeability test

Prepare Analysis Report

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

- PC15.** ensure records form a continuity of documentation to produce a clear, accurate, and indisputable history of the test material with all aspects of documentation in agreement
- PC16.** report test results with a focus on findings and recommendations
- PC17.** include relevant information from the test plan and outline the methodologies used
- PC18.** update all sample registers worksheets, reports, and associated documents which must be retained for a period, which is determined by the management
- PC19.** make sure storage of such material should follow the normal rules of archiving Archiving parameters: indexation, traceability, security, appropriate levels of protection against fraud and tampering, from fire, flood, etc
- PC20.** assure backup copies must be held of any records stored as an electronic signal on magnetic media and renewed at appropriate intervals
- PC21.** ensure dates and signatures of individuals who withdraw and return documents in storage must be recorded

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** legislation, regulations, and standards to be followed for food packaging testing about facility and production requirements
- KU2.** organizational policy for reporting and documentation
- KU3.** procedure to set up a testing facility
- KU4.** applicable FSSAI guidelines to be followed for the establishment of a testing facility
- KU5.** material and equipment requirements for food testing process
- KU6.** procedure to inspect procured material and equipment for quality
- KU7.** differentiate between the primary, secondary, and tertiary types of packaging of food material
- KU8.** ways to test various ingredients and products
- KU9.** applicability and capacity of various equipment used for artisanal production
- KU10.** various calculations performed cost estimations and their optimization techniques
- KU11.** how to perform various kinds of tests
- KU12.** how to analyse performance of self and identify gaps for improvement
- KU13.** importance of time management
- KU14.** how to prepare a plan for carrying out various activities as per task requirements
- KU15.** steps followed to operate a computer and its applications
- KU16.** features of online banking and how to transact using various online systems safely
- KU17.** information to be contained in a business report
- KU18.** importance of entrepreneurial programs, how to expand businesses and generate employment opportunities

Generic Skills (GS)

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

- GS1.** read and interpret information such as standards, policies, forms, etc.
- GS2.** communicate with others effectively
- GS3.** plan and prioritize tasks as per work requirements
- GS4.** analyze and report variances promptly

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Organize packaging material for testing</i>	8	22	-	-
PC1. compare current supply of material with the quality of that offered for the first time, also regular checking of uniformity in new supplies of packaging materials	-	-	-	-
PC2. check quality during production of packaging materials	-	-	-	-
PC3. <ul style="list-style-type: none"> • evaluate suitability of packaging material for a certain specific purpose • Purpose: protection against mechanical or climatic hazards 	-	-	-	-
PC4. evaluate packaging material in standard atmospheric conditions	-	-	-	-
PC5. ensure samples reach equilibrium before evaluation which normally takes 24 hours	-	-	-	-
PC6. ensure that climate has had its effect on the specimen by checking moisture content of test specimen	-	-	-	-
PC7. ensure laboratories maintains standard atmospheric conditions and no test is considered official if conducted under any other conditions	-	-	-	-
<i>Perform testing procedure</i>	14	28	-	-
PC8. ensure physical properties are checked in accordance with a particular basis weight or bulk in Grammage or GSM paper test method	-	-	-	-
PC9. check samples are cut by selecting the suitable template considering the type of the sample	-	-	-	-
PC10. <ul style="list-style-type: none"> • check thickness properties for routine control • Thickness Properties: tensile strength, sealability, and seal strength, moisture, gas, and light barrier properties 	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. determine bursting strength of paper and paperboard to assess both strength and toughness of the material	-	-	-	-
PC12. measure energy absorbed by the test sample in propagating a tear that has already been initiated by cutting a small nick in the test piece in tear strength test	-	-	-	-
PC13. measure amount of water absorbed by the sample during penetration from one side to another in Water Penetration-cobb test	-	-	-	-
PC14. protect hygroscopic food from oxygenated water vapour pick in water vapour permeability test	-	-	-	-
<i>Prepare Analysis Report</i>	7	21	-	-
PC15. ensure records form a continuity of documentation to produce a clear, accurate, and indisputable history of the test material with all aspects of documentation in agreement	-	-	-	-
PC16. report test results with a focus on findings and recommendations	-	-	-	-
PC17. include relevant information from the test plan and outline the methodologies used	-	-	-	-
PC18. update all sample registers worksheets, reports, and associated documents which must be retained for a period, which is determined by the management	-	-	-	-
PC19. make sure storage of such material should follow the normal rules of archiving Archiving parameters: indexation, traceability, security, appropriate levels of protection against fraud and tampering, from fire, flood, etc	-	-	-	-
PC20. assure backup copies must be held of any records stored as an electronic signal on magnetic media and renewed at appropriate intervals	-	-	-	-
PC21. ensure dates and signatures of individuals who withdraw and return documents in storage must be recorded	-	-	-	-
NOS Total	29	71	-	-

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N7624
NOS Name	Carry out analysis of packaging material used for food
Sector	Food Processing
Sub-Sector	Generic
Occupation	Quality Analysis/ Assurance
NSQF Level	4
Credits	1
Version	1.0
Next Review Date	NA

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on this criterion.
6. To pass the Qualification Pack, every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Minimum Aggregate Passing % at QP Level : 70

(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
FIC/N7621.Ensure preparedness for testing process	27	73	-	-	100	30
FIC/N7622.Carry out chemical, physical, microbiological, and sensory testing of food	25	75	-	-	100	20
FIC/N7623.Carry out compilation and record observation	34	66	-	-	100	15
FIC/N9901.Implement health and safety practices at the workplace	30	70	-	-	100	10
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	0	0	50	5
Total	136	314	0	0	450	80

Elective: 1 Analysis of packaging material

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
FIC/N7624.Carry out analysis of packaging material used for food	29	71	-	-	100	20
Total	29	71	-	-	100	20

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
FSSAI	Food Safety and Standards Authority of India
ELISA	enzyme-linked immunosorbent assay
COA	Certificate of Analysis
FSSAI	Food Safety and Standards Authority of India
SOP	Standard Operating Procedures
CPR	Cardio-Pulmonary Resuscitation
GMP	Good Manufacturing Practices
GHP	Good Hygiene Practices
FSSAI	Food Safety and Standards Authority of India
GSM	Grams Per Square Metre

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	<p>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.</p>
Technical Knowledge	<p>Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.</p>
Core Skills/ Generic Skills (GS)	<p>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.</p>
Electives	<p>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.</p>
Options	<p>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.</p>