



# **Model Curriculum**

**QP Name: Spice Processing Technician** 

QP Code: FIC/Q8502

QP Version: 3.0

**NSQF Level: 4** 

**Model Curriculum Version: 3.0** 

Food Industry Capacity and Skill Initiative (FICSI)
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# **Training Parameters**

| Sector   | Food Processing   |
|--|---|
| Sub-Sector                                       | Packaged foods  |
| Occupation                                       | Processing - Packaged Foods   |
| Country  | India   |
| NSQF Level                                       | 3   |
| Aligned to NCO/ISCO/ISIC Code                    | FIC/Q8502   |
| Minimum Educational Qualification and Experience | <ol> <li>Class 10th</li> <li>Class 8th and 2 years of relevant experience</li> <li>Ability to read and write with 5 years of relevant experience</li> </ol> |
| Pre-Requisite License or Training                | NA  |
| Minimum Job Entry Age                            | 16 Years  |
| Last Reviewed On                                 | 24/02/2022  |
| Next Review Date                                 | 23/02/2025  |
| NSQC Approval Date                               | 24/02/2022  |
| QP Version                                       | 3.0   |
| Model Curriculum Creation Date                   | 26/06/2021  |
| Model Curriculum Valid Up to Date                | 31/08/2024  |
| Model Curriculum Version                         | 3.0   |
| Minimum Duration of the Course                   | 380 hours + 20 OJT  |
| Maximum Duration of the Course                   | 380 hours + 20 OJT  |





# **Program Overview**

This section summarizes the end objectives of the program along with its duration.

### **Training Outcomes**

At the end of the program, the learner will be able to:

- Prepare whole spices, spice powder, curry powder and seasonings
- Use various techniques for production of different spices
- Use specialized equipment and tools to produce various types of spice powder and seasonings
- Perform sampling and evaluate the finished product on different parameters.
- Adhere to necessary health and safety practices to ensure food safety and personal hygiene
- Follow emergency procedures and infection control practices effectively
- Work with various organizational departments effectively
- Use resources at the workplace optimally

### **Compulsory Modules**

The table lists the modules, their duration and mode of delivery.

| NOS and Module<br>Details  | Theory<br>Duration | Practical<br>Duration | On-the-Job<br>Training<br>Duration<br>(Mandatory) | On-the-Job<br>Training Duration<br>(Recommended) | Total<br>Duration |
|--|--------------------|-----------------------|---|--|-------------------|
| Bridge Module(s)   | 36:00<br>Hours     | 12:00<br>Hours        | 00:00 Hours                                       | 00:00 Hours                                      | 48:00<br>Hours    |
| Module 1:<br>Introduction to Spice<br>Processing Technician                        | 08:00<br>Hours     | 00:00<br>Hours        | 00:00 Hours                                       | 00:00 Hours                                      | 08:00<br>Hours    |
| Module 2:<br>Employability and<br>Entrepreneurship skills                          | 28:00<br>Hours     | 12:00<br>Hours        | 00:00 Hours                                       | 00:00 Hours                                      | 40:00<br>Hours    |
| FIC/Q9026- Prepare<br>for production<br>NOS Version No. 1.0<br>NSQF Level: 3       | 16:00<br>Hours     | 46:00<br>Hours        | 00:00 Hours                                       | 00:00 Hours                                      | 62:00<br>Hours    |
| Module 3: Preparation for spice production   | 16:00<br>Hours     | 46:00<br>Hours        | 00:00 Hours                                       | 00:00 Hours                                      | 62:00<br>Hours    |
| FIC/N8515- Produce<br>spice and seasonings<br>NOS Version No. 1.0<br>NSQF Level: 4 | 34:00<br>Hours     | 160:00<br>Hours       | 00:00 Hours                                       | 20:00 Hours                                      | 114:00<br>Hours   |
| Module 4: Produce whole spices, curry powder and seasonings                        | 24:00<br>Hours     | 86:00<br>Hours        | 00:00 Hours                                       | 15:00 Hours                                      | 75:00<br>Hours    |
| Module 5: Wrap, label and post-production maintenance of                           | 10:00<br>Hours     | 74:00<br>Hours        | 00:00 Hours                                       | 05:00 Hours                                      | 39:00<br>Hours    |





| equipment   |                |                |             |             |                |
|---|----------------|----------------|-------------|-------------|----------------|
| FIC/N9901:<br>Implement health and                    | 08:00<br>Hours | 16:00<br>Hours | 00:00 Hours | 00:00 Hours | 24:00<br>Hours |
| safety practices at the workplace NOS Version No. 1.0 |                |                |             |             |                |
| NSQF Level: 3   |                |                |             |             |                |
| Module 6: Ensuring                                    | 04:00          | 08:00          | 00:00 Hours | 00:00 Hours | 12:00          |
| food safety and personal hygiene                      | Hours          | Hours          |             |             | Hours          |
| Module 7: Managing                                    | 04:00          | 08:00          | 00:00 Hours | 00:00 Hours | 12:00          |
| accidents and emergencies                             | Hours          | Hours          |             |             | Hours          |
| FIC/N9902: Work                                       | 08:00          | 08:00          | 00:00 Hours | 00:00 Hours | 16:00          |
| effectively in an                                     | Hours          | Hours          |             |             | Hours          |
| organisation  |                |                |             |             |                |
| NOS Version No. 1.0                                   |                |                |             |             |                |
| NSQF Level: 3   |                |                |             |             |                |
| Module 8: Working                                     | 08:00          | 08:00          | 00:00 Hours | 00:00 Hours | 16:00          |
| effectively in an organisation                        | Hours          | Hours          |             |             | Hours          |
| SGJ/N1702: Optimize                                   | 12:00          | 24:00          | 00:00 Hours | 00:00 Hours | 36:00          |
| resource utilization at                               | Hours          | Hours          |             |             | Hours          |
| workplace   |                |                |             |             |                |
| NOS Version No. 1.0                                   |                |                |             |             |                |
| NSQF Level: 3   |                |                |             |             |                |
| Module 9: Material                                    | 04:00          | 08:00          | 00:00 Hours | 00:00 Hours | 12:00          |
| conservation  | Hours          | Hours          |             |             | Hours          |
| Module 10:  | 04:00          | 08:00          | 00:00 Hours | 00:00 Hours | 12:00          |
| Energy/electricity conservation                       | Hours          | Hours          |             |             | Hours          |
| Module 11: Waste                                      | 04:00          | 08:00          | 00:00 Hours | 00:00 Hours | 12:00          |
| management/recycling                                  | Hours          | Hours          |             |             | Hours          |
| Total Duration  | 114:00         | 266:00         | 00:00       | 20:00       | 400:00         |
|   | Hours          | Hours          | Hours       | Hours       | Hours          |





## **Module Details**

# **Module 1: Introduction to Spice Processing Technician** *Bridge Module*

### **Terminal Outcomes:**

- Describe the food processing industry and its sub-sectors in brief
- Discuss the role and responsibilities of Spice Processing Technician

| Duration: 8:00                              | Duration: 00:00                   |
|---|-----------------------------------|
| Theory – Key Learning Outcomes              | Practical – Key Learning Outcomes |
| Discuss the size and scope of the food      |                                   |
| processing industry in brief.               |                                   |
| Discuss the future trends and career        |                                   |
| growth opportunities available to the Spice |                                   |
| Processing Technician.                      |                                   |
| Summarise the key role and responsibilities |                                   |
| of 'Spice Processing Technician'.           |                                   |
| List the various terminologies used in the  |                                   |
| spice processing industry.                  |                                   |
| Discuss the organisational policies to be   |                                   |
| followed pertaining to the delivery         |                                   |
| standards, health, safety and hazard        |                                   |
| handling procedures, integrity, dress code, |                                   |
| etc.  |                                   |
| State the importance of planning before     |                                   |
| starting the work.                          |                                   |
|   |                                   |

### **Tools, Equipment and Other Requirements**

NIL





### Module 2: Employability and Entrepreneurship skills

### **Terminal Outcomes:**

- Describe the traits of individual at workplace
- Demonstrate apply employability and entrepreneurship skills at workplace

| Duration: 28:00   | Duration: 12:00  |  |  |
|---|--|--|--|
| Theory – Key Learning Outcomes  | Practical – Key Learning Outcomes  |  |  |
| <ul> <li>Discuss own strengths and weaknesses and analyse the gaps to ensure continuous improvement.</li> <li>Discuss the measures to be undertaken to utilise time effectively thereby achieving maximum productivity.</li> <li>List the characteristics of innovative individuals</li> <li>List the levels of Maslow Hierarchy of needs</li> <li>List the traits of effective team</li> <li>Discuss tips for stress management</li> <li>Discuss the importance of good work ethics</li> <li>Discuss how to manage an enterprise</li> <li>Describe how to plan effective strategies for solving problems and improving work culture within the team.</li> <li>List the various types of digital marketing techniques.</li> <li>Discuss the types and importance of ecommerce in promoting businesses.</li> <li>List the various types of online banking services being used widely.</li> <li>Discuss the procedure to apply for bank finances</li> <li>List the elements of a proposal to attract future business opportunities and prospective clients.</li> <li>Explain how to conduct entrepreneurial programs to identify business opportunities, generate employment and increase clientele.</li> <li>Understand the make in India campaign</li> <li>Discuss the importance of Swachh Bharat Abhiyan</li> <li>Understand the importance of</li> </ul> | <ul> <li>Show how to analyse a situation to identify gaps for improving the work process.</li> <li>Demonstrate the procedure to plan the time taken to perform various tasks effectively.</li> <li>Describe how market research is carried out</li> <li>Role play the characteristics of an effective entrepreneur and leader</li> <li>Demonstrate on how to identify new business opportunities</li> <li>Prepare a sample plan to solve problems and improve productivity at the workplace.</li> <li>Demonstrate the procedure to operate a computer for digital marketing, e-commerce, branding, etc.</li> <li>Show how to use services such as NEFT, IMPS, UPI, RTGS for online banking.</li> </ul> |  |  |





### entrepreneurship

- Describe the traits of successful entrepreneur
- List the types of enterprises
- Understand the importance of effective speaking and listening
- Discuss the importance of problem solving
- Discuss how to deal with failures
- Describe the core keys of marketing
- Discuss ways to manage risks at workplace

### **Classroom Aids:**

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.

### **Tools, Equipment and Other Requirements**

Nil





# Module 3: Preparation for spice production Mapped to FIC/N9026 v1.0

### **Terminal Outcomes:**

- Discuss the standard practices to be followed by a spice processing technician for planning the production
- Demonstrate the tasks to be performed for planning the production

| Duration: 16:00  | Duration: 46:00   |  |  |
|--|---|--|--|
| Theory – Key Learning Outcomes   | Practical – Key Learning Outcomes   |  |  |
| <ul> <li>Elucidate production planning process.</li> <li>Discuss the importance of various process charts, product flow charts, etc.</li> <li>Explain the resource management process.</li> <li>Explain the procedure to estimate manpower, raw material and capacity.</li> <li>List down equipment type and its use.</li> <li>Discuss the organizational policies and SOP on cleanliness and maintain production machineries.</li> <li>List down the basic concept of food safety and hygiene.</li> <li>State waste management procedures.</li> <li>List down the methods to inspect tools, equipment and machinery.</li> <li>Discuss the procedure to allot work or responsibility to the team.</li> </ul> | <ul> <li>Demonstrate how to analyze the process chart, product flow chart, formulation, chart, etc.</li> <li>Exemplify the valuation of manpower and material requirement as per work requirement</li> <li>Demonstrate how to estimate the resources as per the requirement (raw materials, packaging materials, machineries, and manpower)</li> <li>Illustrate the methods of cleaning and sanitization of tools and equipment used in spice production</li> <li>Exhibit the procedure to dispose the different kinds of waste material</li> <li>Demonstrate the inspection procedure for the tools, equipment, and machinery</li> <li>Prepare samples to plan and prioritize work schedule</li> <li>Employ appropriate practices to plan capacity utilization of machineries</li> <li>Show how to replace or discard tools, equipment and materials declared unfit to be used for production</li> <li>Show how to receive and assemble tools and equipment used in production</li> <li>Demonstrate the process to assign responsibilities to assistant/helpers</li> </ul> |  |  |

#### **Classroom Aids**

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

### **Tools, Equipment and Other Requirements**

Process related documents, Grinder, mills, pulveriser, sifter, mortar & pestle, pounding machine, de-stoner, roaster, dryer, spice blender, protective gloves, head caps, aprons, safety goggles, safety boots, mouth masks, sanitizer, safety manual





# Module 4: Produce whole spices, seasonings and curry powder $\it Mapped\ to\ FIC/N8515\ v\ 1.0$

### **Terminal Outcomes:**

- Discuss the process for preparing different whole spices, seasonings, spice powder and curry powder
- Demonstrate the standard work practices followed to produce whole spices, seasonings, spice powder and curry powder

| Duration: 24:00   | <b>Duration</b> : 86:00   |  |  |
|---|---|--|--|
| Theory – Key Learning Outcomes  | Practical – Key Learning Outcomes   |  |  |
| <ul> <li>Elucidate organisational policies and procedures pertaining to spice production, quality analysis, hazard handling, reporting, documentation, etc.</li> <li>List down various types of spices, ingredients and their characteristics that are used in the industry.</li> <li>Describe sequence of operations to be followed for producing various types of spices.</li> <li>Explain the process of cleaning the spices thoroughly.</li> <li>List down the tools and equipment used in spice production, their operation and safe handling.</li> <li>State the importance of sterilization in spice processing.</li> <li>Discuss the importance of critical control points, its implementation and monitoring for the production process. KU9</li> <li>State the desired product parameters to be achieved the spices to be produced.</li> <li>List down the different grades of raw materials used in spice production and their usage.</li> <li>State the usage of different mesh size as per the product requirement.</li> <li>Describe the impact of microbial contamination in spice production and ways to prevent it.</li> <li>State the importance of sensory evaluation of different spices.</li> <li>Discuss how to identify the variances in the characteristics of spices produced.</li> <li>Summarize the information to be</li> </ul> | <ul> <li>Demonstrate the procedure of cleaning unprocessed whole spices thoroughly.</li> <li>Show the ways to set controls of different operating equipment.</li> <li>Exemplify the steps to prepare the spices for cutting.</li> <li>Demonstrate how to sterilize the whole spices.</li> <li>Show the procedure of monitoring of the process to ensure food safety and prevent contamination.</li> <li>Show how to inspect the produced samples for desired parameters.</li> <li>Role play a situation to handover the produced samples to the quality lab for testing as per organisational practice.</li> <li>Apply sorting and grading to the whole as per production requirements.</li> <li>Demonstrate the procedure to carry out grinding and collecting spice powder, curry powder and seasonings.</li> <li>Display how to adjust screens and sieve in the sifting/sieving machine as per processing needs.</li> <li>Demonstrate the ways to add ingredients to prepare a mixture for blending as per type of seasoning to be produced.</li> <li>Demonstrate the procedure to record the document significant.</li> </ul> |  |  |





| maintained for spice manufacturing. |  |
|-------------------------------------|--|
| recorded and type of records to be  |  |

### **Classroom Aids**

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

### **Tools, Equipment and Other Requirements**

Grinder, mills, pulveriser, sterilization chamber, vacuum dryer chamber, dryer, roasting machine, sifter, mortar & pestle, pounding machine, de-stoner, spice blender, protective gloves, head caps, aprons, safety goggles, safety boots, mouth masks, sanitizer, safety manual





# Module 5: Wrap, label and post production maintenance of equipment *Mapped to FIC/N8515 v 1.0*

#### **Terminal Outcomes:**

- Explain the procedure of wrapping and labeling of products and post production cleaning and maintenance of equipment
- Demonstrate the technique to package the finished products

| Duration: 10:00  | Duration: 74:00   |
|--|---|
| Theory – Key Learning Outcomes   | Practical – Key Learning Outcomes   |
| <ul> <li>Explain how to package the spices and materials used in the process.</li> <li>State the basic troubleshooting of production machinery utilised in the process.</li> <li>Discuss the applicable FSSAI regulations for labelling and importance of following them for spice production.</li> <li>Explain the cleaning procedures such as CIP and COP followed in the food processing industry.</li> <li>List down how to store the tools, equipment and related materials safely.</li> <li>Describe the information to be mentioned on the packaging labels.</li> <li>State the types of packaging defects and techniques used for their rectification.</li> <li>Summarize the impact of hazards at the workplace and safe practices for disposing them.</li> </ul> | <ul> <li>Display how to load the desired packaging material on the machine appropriately to prepare for packaging.</li> <li>Display how to load different spices on the machine for packaging.</li> <li>Show how to set controls of the packaging machine and monitor the process.</li> <li>Demonstrate the procedure to record information of finished products details as per FSSAI regulations of packaging and labelling, 2011.</li> <li>Show how to check for presence of metallic substances in the packaged finished products.</li> <li>Show how to report information such as variances in product characteristics to the supervisor accurately.</li> <li>Demonstrate the procedure to verify and record production details.</li> <li>Employ appropriate practices to transfer the products to quality labs.</li> <li>Demonstrate the procedure of cleaning and inspecting work area, tools and equipment after production. PC36,</li> <li>Show how to record and report equipment faults to the concerned department/supervisor as per organizational practice.</li> </ul> |

### **Classroom Aids**

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

### **Tools, Equipment and Other Requirements**

Packaging machine, labels, packaging material, protective gloves, head caps, aprons, safety goggles, safety boots, mouth masks, various types of sanitisers and disinfectants, trash bins for waste material disposal, equipment for cleaning, procedural manual for reference





### Module 6: Ensuring food safety and personal hygiene Mapped to FIC/N9901, v1.0

#### **Terminal Outcomes:**

- Explain the ways to ensure food safety and personal hygiene at the workplace
- Demonstrate the steps to be followed for implementing good hygiene and manufacturing practices

| practices  |   |
|--|---|
| Duration: 04:00  | Duration: 8:00  |
| Theory – Key Learning Outcomes   | Practical – Key Learning Outcomes   |
| <ul> <li>Define hazards and risks.</li> <li>Recall the various types of health and safety equipment available in an organisation and the methods for obtaining them.</li> <li>Discuss the organisational health and safety policies and procedures.</li> <li>Discuss the relevant health and safety standards to be followed in the job as listed in 'The Food Safety and Standards Act, 2006'.</li> <li>Explain the importance of wearing appropriate personal protective equipment (such as eye protection, hard hats, gloves apron, rubber boots, etc.) and ensuring personal hygiene at the workplace.</li> <li>Elucidate the ways to prevent product contamination and cross contamination at the workplace.</li> </ul> | <ul> <li>Employ appropriate techniques to prevent product contamination and cross contamination.</li> <li>Demonstrate the steps to be performed for implementing good manufacturing practices (GMP) in a retail environment.</li> <li>Show how to treat injuries such as cuts, boils, skin infections and grazes appropriately.</li> <li>Apply suitable methods for disinfecting the work area and equipment thoroughly.</li> <li>Demonstrate how to wash hands and use alcohol-based sanitisers appropriately.</li> <li>Show how to wear personal protective equipment such as gloves, hairnets, masks, ear plugs, goggles, shoes etc. properly ensuring adequate protection.</li> <li>Prepare a sample report consisting of information such as illness to self and others as per organisational practice.</li> </ul> |
| Discuss the ways to handle items that can<br>lead to allergic reactions in a retail  | Role play a situation on how to<br>communicate with the supervisor for  |

- State the importance of preventive health check-ups for ensuring personal hygiene.
- State the importance of storing food at specified temperature.
- Discuss the importance of sanitising self and the work area safely and appropriately.
- Recall the ways to store the sanitising materials appropriately.

reporting illness of self and others.

## Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide,

### **Classroom Aids:**

environment.





### Participant's Handbook

### **Tools, Equipment and Other Requirements**

Gloves, hair net, shoe cover, soap dispenser, hand sanitizer, ear plugs, masks, aprons/lab coatseye protection, hard hats, gloves, rubber boots, etc.





# Module 7: Managing accidents and emergencies *Mapped to FIC/N9901, v1.0*

### **Terminal Outcomes:**

- List the various types of accidents and emergencies that can arise at the workplace and the ways to address them
- Demonstrate the steps to be followed to implement emergency and evacuation procedures effectively

| <b>Duration:</b> <i>04:00</i>   | <b>Duration</b> : 08:00   |
|---|---|
| Theory – Key Learning Outcomes  | Practical – Key Learning Outcomes   |
| <ul> <li>List the various types of health and safety hazards present in the environment.</li> <li>Discuss the possible causes of risk, hazard or accident at the workplace.</li> <li>Elucidate the standard practices and precautions used to control and prevent risks, hazards and accidents at the workplace.</li> <li>Discuss the dangers associated with the use of electrical and other equipment.</li> <li>State the importance of using protective equipment and clothing for specific tasks and work conditions.</li> <li>Discuss the role of organisational protocols in preventing accidents and hazards.</li> <li>Recall the preventive and remedial actions to be taken in the case of exposure to toxic materials at the workplace.</li> <li>Discuss the various causes of fire and ways to prevent them.</li> <li>Elaborate the steps to use different types of fire extinguishers.</li> <li>Explain the procedure to provide artificial respiration and cardio-pulmonary resuscitation(CPR) to the affected.</li> <li>Summarise the rescue techniques to be followed at times of fire hazard.</li> <li>Discuss the significance of various types of hazard and safety signs.</li> <li>Discuss the workplace emergency and evacuation procedures.</li> </ul> | <ul> <li>Apply appropriate techniques to deal with hazards safely and appropriately.</li> <li>Demonstrate the use of various types of fire extinguishers effectively.</li> <li>Demonstrate appropriate ways to respond to an accident situation or medical emergency promptly and appropriately.</li> <li>Demonstrate the steps to be followed for providing artificial respiration and cardio-pulmonary resuscitation (CPR) in various instances(e.g. cardiac arrest).</li> <li>Perform the steps to be followed during emergency and evacuation procedure.</li> <li>Demonstrate the procedure of freeing a person from electrocution.</li> <li>Show how to administer appropriate first aid to victims in case of cuts, bleeding, burns, choking, electric shock, poisoning etc.</li> </ul> |





- Elaborate the type of first-aid treatment to be offered at times of shock, electrical shock, bleeding, breaks to bones, minor burns, resuscitation, poisoning, injuries, etc.
- Discuss about the potential injuries and ill health conditions that are caused due to incorrect manual handling practices.
- List the precautions to be taken while lifting and carrying materials in a food retail environment.

#### **Classroom Aids:**

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

#### **Tools, Equipment and Other Requirements**

Helmet, gloves, rubber mat, ladder, neon tester, leather or asbestos gloves, flame proof aprons, flame proof overalls buttoned to neck, cuff less (without folds) trousers, reinforced footwear, helmets/hard hats, cap and shoulder covers, ear defenders/plugs, safety boots, knee pads, particle masks, glasses/goggles/visors, hand and face shields, machine guards, residual current Devices, shields, dust sheets, respirator.





# Module 8: Working effectively in an organization *Mapped to FIC/N9902, v1.0*

### **Terminal Outcomes:**

- State the importance of proper communication and teamwork at the workplace
- Role play a situation to communicate with others effectively

| Duration: 08:00   | Duration: 08:00  |
|---|--|
| Theory – Key Learning Outcomes  | Practical – Key Learning Outcomes  |
| <ul> <li>Discuss the applicable organisational quality procedures and processes for working effectively in a team.</li> <li>Elucidate the legislations, standards, policies, and procedures followed in the organization relevant to employment, behaviour, harassment, discrimination, and performance conditions.</li> <li>State the importance of well-defined reporting structure in an organisation.</li> <li>List the various types of inter-dependent functions applicable in the job.</li> <li>Discuss the different types of harassment and discrimination based on gender, disability, caste, religion, and culture.</li> <li>List the key factors that aid in prioritising tasks.</li> <li>Discuss the components of effective communication and its importance at the workplace.</li> <li>State the impact of poor communication on the employee, the employer, and the customer.</li> <li>State the importance of teamwork in organizational and individual success.</li> <li>Discuss the importance of ethics and discipline for professional success.</li> <li>Explain the ways to address grievances appropriately and effectively.</li> <li>Discuss the importance of managing interpersonal conflicts effectively and ways to do so.</li> </ul> | <ul> <li>Roleplay a situation on how to obtain information, seek clarifications, reciprocate understanding and provide information accurately and clearly.</li> <li>Roleplay a situation on how to use inclusive language (verbal, non-verbal and written) that is gender, disability and culturally sensitive while interacting with others.</li> <li>Show how to consult and assist others to maximize effectiveness and efficiency at work.</li> <li>Dramatise a situation to show how to escalate problems and grievances beyond own scope to the concerned authority.</li> <li>Roleplay a situation on how totake appropriate action to resolve conflicts at the workplace.</li> <li>Roleplay a situation on how toreport incidents of harassment and discrimination to appropriate authority.</li> </ul> |





- List the different types of disabilities and the challenges faced by persons with disability (PwD).
- Discuss the applicable laws, acts and provisions defined for PwD by the statutory bodies.
- State the importance of gender sensitivity and equality.
- Discuss the applicable legislations, grievance redressal mechanisms, and penalties against harassment at the workplace.
- State the importance of transacting with others without personal bias.

#### **Classroom Aids:**

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

### **Tools, Equipment and Other Requirements**

Nil





### **Module 9: Material Conservation** Mapped to SGJ/N1702, v1.0

### **Terminal Outcomes:**

• Discuss optimal usage of material including water in various tasks/activities/processes

| <b>Duration</b> : <i>04:00</i>  | <b>Duration</b> : <i>08:00</i>  |
|---|---|
| Theory – Key Learning Outcomes  | Practical – Key Learning Outcomes   |
| <ul> <li>List the types of hazards, risks and threats associated with handling different materials.</li> <li>Discuss the role of workstation layout, electrical and thermal equipment used in the material conservation.</li> <li>Discuss organisational procedures for minimising waste.</li> <li>Elucidate practices of efficient and inefficient management and utilization of material and water at the workplace.</li> <li>Discuss the ways to manage material and water usage at work effectively.</li> </ul> | <ul> <li>Show how to check for spills and leakages in various materials applicable in the job.</li> <li>Demonstrate how to plug the spills and leakages appropriately.</li> <li>Roleplay a situation on how to escalateany issues related to repair of spillsand leakages to the concerned authority effectively.</li> <li>Demonstrate the standard practices to be followed for cleaning tools, machines and equipment effectively.</li> </ul> |
| Classroom Aids:   |   |
| Computer, Projection Equipment, PowerPoint Pro  | esentation and software, Facilitator's Guide,   |
| Participant's Handbook  |   |
| Tools, Equipment and Other Requirements   |   |
| Materials and tools and equipment used at work  |   |





### **Module 10: Energy/electricity conservation** Mapped to SGJ/N1702, v1.0

### **Terminal Outcomes:**

• Discuss optimal usage of energy/electricity

| <b>Duration:</b> <i>04:00</i>  | <b>Duration</b> : <i>08:00</i>  |
|--|---|
| Theory – Key Learning Outcomes   | Practical – Key Learning Outcomes   |
| <ul> <li>Define electricity.</li> <li>Discuss the basics of electricity.</li> <li>List the energy efficient devices that are used in the job.</li> <li>Discuss the ways to identify electrical problems that can arise during work.</li> <li>Discuss the standard practices to be followed for conserving electricity in the job.</li> <li>State the impact of improperly connected electrical equipment and appliances on the tasks being performed.</li> </ul> | <ul> <li>Apply suitable techniques to check the equipment/machinery for desired level of functioning.</li> <li>Employ appropriate methods to rectify faulty equipment/machinery safely.</li> <li>Roleplay a situation on how to report equipment faults and maintenance lapses to the concerned personnel effectively.</li> </ul> |
| Classroom Aids:  |   |
| Computer, Projection Equipment, PowerPoint Pro   | esentation and software, Facilitator's Guide,   |
| Participant's Handbook   |   |
| Tools, Equipment and Other Requirements  |   |
| Energy saving devices  |   |





### Module 11: Waste management/recycling Mapped to SGJ/N1702, v1.0

### **Terminal Outcomes:**

- Discuss the importance of minimal waste generation
- Demonstrate how to dispose waste as per industry approved standards

| <b>Duration</b> : <i>04:00</i>   | <b>Duration</b> : <i>08:00</i>  |
|--|---|
| Theory – Key Learning Outcomes   | Practical – Key Learning Outcomes   |
| <ul> <li>List the various types of recyclable, non-recyclable, and hazardous waste.</li> <li>State the significance of different coloured dustbins.</li> <li>List the different types of waste to be segregated.</li> <li>State the importance of waste management.</li> <li>Discuss the standard methods for waste disposal.</li> <li>List the sources of pollution.</li> <li>Discuss the ways to minimise various types of pollution.</li> </ul> | <ul> <li>Demonstrate the standard practices to be followed for segregating waste into respective categories.</li> <li>Show how to dispose non-recyclable waste appropriately and safely.</li> <li>Demonstrate the standard practice for depositing recyclable and reusable materials at designated place.</li> <li>Show how to dispose hazardous waste safely and appropriately.</li> </ul> |
| Computer, Projection Equipment, PowerPoint Pre   | esentation, Facilitator's Guide, Participant's  |

### **Tools, Equipment and Other Requirements**

Non-recyclable, recyclable waste bins





## **Annexure**

## **Trainer Requirements**

| Trainer Prerequisites                            |   |                                 |                    |                     |                    |         |
|--|---|---------------------------------|--------------------|---------------------|--------------------|---------|
| Minimum Educational Specialization Qualification |   | Relevant Industry<br>Experience |                    | Training Experience |                    | Remarks |
|  |   | Years                           | Specialization     | Years               | Specialization     |         |
| B.Sc or<br>graduate/B.Tech/BE                    | Food<br>technology or<br>food<br>engineering  | 3                               | Food processing    | 1                   | Food processing    |         |
| M.Sc/M.Tech/ME                                   | Food<br>technology or<br>food<br>engineering  | 2                               | Food<br>processing | 1                   | Food<br>processing |         |
| Diploma /certificate<br>course                   | (Food Technology / Food Engineering /packaging/Ho me science, Milling technology or allied sector | 4                               | Food<br>processing | 1                   | Food<br>processing |         |

| Trainer Certification  |  |  |  |
|--|--|--|--|
| Domain Certification   | Platform Certification   |  |  |
| Certified for the job role "Spice Processing Technician", mapped to the Qualification Pack "FIC/Q8502, V 2.0", issued by FICSI. Minimum accepted score in SSC Assessment is 80%. | Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "FIC/Q8502". Minimum accepted score is 80%. |  |  |





## **Assessor Requirements**

| Assessor Prerequisites             |   |                              |                 |                                |                    |         |
|------------------------------------|---|------------------------------|-----------------|--------------------------------|--------------------|---------|
| Minimum Specialization Educational | Specialization  | Relevant Industry Experience |                 | Training/Assessment Experience |                    | Remarks |
| Qualification                      |   | Years                        | Specialization  | Years                          | Specialization     |         |
| M.Sc/M.Tech/ME                     | Food<br>technology or<br>food<br>engineering          | 2                            | Food processing | 1                              | Food processing    |         |
| B.Sc or<br>graduate/B.Tech/<br>BE  | Food<br>technology/<br>Home Science                   | 3                            | Food processing | 2                              | Food<br>processing |         |
| Diploma                            | Hotel<br>management/<br>Food Science/<br>Home Science | 4                            | Food processing | 2                              | Food<br>processing |         |

| Assessor Certification  |  |  |  |
|---|--|--|--|
| Domain Certification  | Platform Certification                         |  |  |
| Certified for the job role "Spice Processing  | Recommended that the Assessor is certified for |  |  |
| Technician", mapped to the Qualification Pack   | the Job Role: "Assessor", mapped to the        |  |  |
| "FIC/Q8502, V 2.0", issued by FICSI. Minimum Qualification Pack: "FIC/Q8502". Minimum |  |  |  |
| accepted score in SSC Assessment is 80%.  | accepted score is 80%.                         |  |  |





### **Assessment Strategy**

This section includes the processes involved in identifying, gathering and interpreting information to evaluate the learner on the required competencies of the program.

Assessment will be based on the concept of Independent Assessors empanelled with Assessment Agencies, identified, selected, trained and certified on Assessment techniques. These assessors would be aligned to assess as per the laid down criteria.

Assessment Agency would conduct assessment only at the training centres of Training Partner or designated testing centers authorized by FICSI.

Ideally, the assessment will be a continuous process comprising of three distinct steps:

- A. Mid-term assessment
- B. Term / Final Assessment

Each National Occupational Standard (NOS) in the respective QPs will be assigned weightage. Therein each Performance Criteria in the NOS will be assigned marks for theory and / or practical based on relative importance and criticality of function.

This will facilitate preparation of question bank / paper sets for each of the QPs. Each of these papers sets / question bank so created by the Assessment Agency will be validated by the industry subject matter experts through FICSI, especially with regard to the practical test and the defined tolerances, finish, accuracy etc.

The following tools are proposed to be used for final assessment:

- Ι. Written Test: This will comprise of
  - a. True / False Statements
  - b. Multiple Choice Questions
  - c. Matching Type Questions

Online system for this will be preferred.

- II. Practical Test: This will comprise a test job to be prepared as per project briefing following appropriate working steps, using necessary tools, equipment and instruments. Through observation it will be possible to ascertain candidate's aptitude, attention to details, quality consciousness etc. The end product will be measured against the pre-decided MCQ filled by the Assessor to gauge the level of his skill achievements.
- III. Structured Interview: This tool will be used to assess the conceptual understanding and the behavioural aspects as regards the job role and the specific task at hand.





## References

## **Glossary**

| Term                     | Description   |
|--------------------------|---|
| Declarative<br>Knowledge | Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.   |
| Key Learning<br>Outcome  | Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application). |
| OJT (M)                  | On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site  |
| OJT (R)                  | On-the-job training (Recommended); trainees are recommended the specified hours of training on site   |
| Procedural<br>Knowledge  | Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills.  |
| Training Outcome         | Training outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of the training</b> .  |
| Terminal Outcome         | Terminal outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of a module.</b> A set of terminal outcomes help to achieve the training outcome.  |





## **Acronyms and Abbreviations**

| Term | Description                             |
|------|---|
| QP   | Qualification Pack                      |
| NSQF | National Skills Qualification Framework |
| NSQC | National Skills Qualification Committee |
| NOS  | National Occupational Standards         |
| FIFO | First In First Out                      |
| FEFO | First Expire First Out                  |
| GMP  | Good Manufacturing Practices            |
| GHP  | Good Hygiene Practices                  |