Model Curriculum

QP Name: Ice Cream Processing Technician

QP Code: FIC/Q2004

QP Version: 1.0

NSQF Level: 4

Model Curriculum Version: 1.0

Food Industry Capacity and Skill Initiative (FICSI)
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Training Parameters

Sector	Food Processing
Sub-Sector	Dairy Products
Occupation	Processing
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2004/7413.50
Minimum Educational Qualification and Experience	1. Class 12th passed in any stream 2. Class 10th passed and 2 years of course in relevant stream 3. Class 10th passed and 2 years of dairy experience 4. Class 10th Pass and 2 years of ITI
Pre-Requisite License or Training	1. Food standards and regulations 2. Operating different types of dairy processing equipment 3. Packaging technology 4. GMP 5. HACCP 6. QMS 7. Computer basics and ERP system followed by the organization 8. Training in Food Safety Standards and Regulations (as per FSSAI) (Mandatory)
Minimum Job Entry Age	18 years
Last Reviewed On	31-05-2021
Next Review Date	31-05-2024
NSQC Approval Date	
QP Version	1.0
Model Curriculum Creation Date	31-12-2015

Model Curriculum Valid Up to Date	31-05-2024
Model Curriculum Version	1.0
Minimum Duration of the Course	340 Hours
Maximum Duration of the Course	340 Hours

Program Overview

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

Training Outcomes

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

- Produce all types of ice-cream in semi-automated and fully automated units
- Handle ice-cream processing machineries while maintaining process parameters
- Plan production sequence as per production order
- Document and record necessary as required in the work process
- Observe food safety and hygiene standards at work

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
Introduction to the sector and the job	**53:00 Hours**	**61:00 Hours**	**00:00 Hours**	**00:00 Hours**	**114:00 Hours**
Module 1: Introduction to the training program	02:00 Hours	00:00 Hours	00:00 Hours	00:00 Hours	02:00 Hours
Module 2: Introduction to food processing industry	04:00 Hours	00:00 Hours	00:00 Hours	00:00 Hours	04:00 Hours
Module 12: IT Orientation	03:00 Hours	08:00 Hours	00:00 Hours	00:00 Hours	11:00 Hours
Module 14: Conduct field visits	08:00 Hours	20:00 Hours	00:00 Hours	00:00 Hours	28:00 Hours
Module 15: Revision	02:00 Hours	03:00 Hours	00:00 Hours	00:00 Hours	05:00 Hours
Module 16: Evaluation	06:00 Hours	18:00 Hours	00:00 Hours	00:00 Hours	24:00 Hours
Module 17: Employability and Entrepreneurship skills	28:00 Hours	12:00 Hours	00:00 Hours	00:00 Hours	40:00 Hours
FIC/N2013 Prepare and maintain work area and machineries for production of ice cream	**26:00 Hours**	**16:00 Hours**	**00:00 Hours**	**00:00 Hours**	**42:00 Hours**

NOS Version No.: 1.0 NSQF Level: 4					
Module 3: Introduction to dairy industry	06:00 Hours	00:00 Hours	00:00 Hours	00:00 Hours	06:00 Hours
Module 4: Introduction to dairy processing plant	06:00 Hours	00:00 Hours	00:00 Hours	00:00 Hours	06:00 Hours
Module 5: Organisational standards and norms	06:00 Hours	06:00 Hours	00:00 Hours	00:00 Hours	12:00 Hours
Module 6: Prepare and maintain work area and process machineries	08:00 Hours	10:00 Hours	00:00 Hours	00:00 Hours	18:00 Hours
FIC/N2014 Prepare for processing of ice cream NOS Version No.: 1.0 NSQF Level: 4	**12:00 Hours**	**28:00 Hours**	**00:00 Hours**	**00:00 Hours**	**40:00 Hours**
Module 7: Food microbiology	04:00 Hours	08:00 Hours	00:00 Hours	00:00 Hours	12:00 Hours
Module 8: Preparation for Processing Dairy Products	08:00 Hours	20:00 Hours	00:00 Hours	00:00 Hours	28:00 Hours
FIC/N2015 Produce ice cream NOS Version No.: 1.0 NSQF Level: 4	**16:00 Hours**	**95:00 Hours**	**00:00 Hours**	**00:00 Hours**	**111:00 Hours**
Module 9: Carry out processing of dairy products	14:00 Hours	90:00 Hours	00:00 Hours	00:00 Hours	104:00 Hours
Module 10: Professional and Core Skills	02:00 Hours	05:00 Hours	00:00 Hours	00:00 Hours	07:00 Hours
FIC/N2016 Complete documentation and record keeping related to processing of ice cream NOS Version No.: 1.0 NSQF Level: 4	**02:00 Hours**	**05:00 Hours**	**00:00 Hours**	**00:00 Hours**	**07:00 Hours**
Module 11: Document and record information	02:00 Hours	05:00 Hours	00:00 Hours	00:00 Hours	07:00 Hours
FIC/N9001 Food safety, hygiene and sanitation for processing food products NOS Version No.: 1.0	**06:00 Hours**	**20:00 Hours**	**00:00 Hours**	**00:00 Hours**	**26:00 Hours**

NSQF Level: 3					
Module 13: Ensuring food safety, personal hygiene and workplace sanitation	06:00 Hours	20:00 Hours	00:00 Hours	00:00 Hours	26:00 Hours
Total Duration	**115:00 Hours**	**225:00 Hours**	**00:00 Hours**	**00:00 Hours**	**340:00 Hours**

Module Details

Module 1: Introduction to the training program

Bridge Module

Terminal Outcomes:

- Discuss the opportunities available for ice cream processing technicians in food processing industry
- List the GMP and HACCP practices and FSSAI guidelines applicable in dairy processing

Duration: *01:30*	**Duration**: *00:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss the future trends and career growth opportunities available to Ice cream processing technician in the food processing industry. • Summarise the key roles and responsibilities of a 'Ice cream processing technician'. • List the various terminologies used by Ice cream processing technician in the food processing industry. • Discuss the role of organisational policies and procedures in the job. • List the sequence of tasks performed for Ice cream processing . • Discuss the impact of not following Good Manufacturing Practices (GMP), Hazard Critical Analysis and Control Points (HACCP) and Food Safety and Standards Authority of India (FSSAI) guidelines in producing baked products.	
Classroom Aids:	

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.
Tools, Equipment and Other Requirements
Nil

Module 2: Introduction to food processing industry

Bridge Module

Terminal Outcomes:

- Discuss food processing sector in brief

Duration: *02:30*	**Duration**: *00:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Define food processing. • List the various sub-sectors of the food processing industry.	
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
White/Black Board/Chart Paper, Marker/computer and projector, Trainer's Guide, Student Handbook	

Module 3: Introduction to Dairy Industry

Mapped to FIC/ N2013 FIC/N2014 FIC/N2015, v1.0

Terminal Outcomes:

- Discuss the opportunities available for ice cream processing technicians in food processing industry
- List the GMP and HACCP practices and FSSAI guidelines applicable in dairy processing

Duration: *06:00*	**Duration**: *00:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the need for processing milk. • List the various units within a dairy processing plant. • Explain the composition of milk. • Describe the composition of ice cream. • List the different types of ice cream. • Explain the process of producing ice-cream.	
Classroom Aids:	
White/Black board/ Chart paper, Markers/ computer and projector, Trainer's guide, student handbook, sample of milk	
Tools, Equipment and Other Requirements	
Nil	

Module 4: Introduction to dairy processing plant

Mapped to FIC/N2014 FIC/N2015, v1.0

Terminal Outcomes:

- Discuss the opportunities available for ice cream processing technicians in food processing industry
- List the GMP and HACCP practices and FSSAI guidelines applicable in industrial dairy processing

Duration: *06:00*	**Duration**: *00:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• List the machineries used in a dairy processing plant. • List the equipment used for ice cream processing. • Explain the process of testing milk for accepted quality standards.	
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
Nil	

Module 5: Organisational standards and norms

Mapped to NOS/N2013 v 1.0

Terminal Outcomes:

- Discuss the roles and responsibilities of the individual in the job

Duration: *06:00*	**Duration**: *06:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• List the roles and responsibilities of the individual in the job • Explain the food safety hygiene standards to follow in a work environment	• Demonstrate how to conduct yourself at the workplace • State the personal hygiene and sanitation guidelines
Classroom Aids	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	
Protective Gloves, Head Caps, Lab Coat, Safety Goggles, Safety Boots, Mouth Masks, Sanitizer, Food Safety Manual	

Module 6: Prepare and maintain work area and process machineries

Mapped to FIC/N2013, FIC/N2014, FIC/N2015, v1.0

Terminal Outcomes:

- Discuss the tasks to be performed to prepare for ice cream processing
- State the importance of maintaining tools and equipment effectively

Duration: *08:00*	**Duration**: *10:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• List the materials and equipment used in the cleaning and maintenance of the work area. • List the common detergents and sanitizers used in cleaning work area and machineries. • Explain the properties of the cleaning agents used. • Describe the methods of cleaning and sanitization. • Describe CIP method of cleaning. • Describe SIP method of cleaning. • Explain the method of managing and disposing waste material. • Describe the functions to be carried out before starting production. • Explain the maintenance procedure to be followed for dairy processing machineries before starting production. • Explain the lubrication system followed in the dairy industry. • List the different types of maintenance procedures.	• Demonstrate the process of preparing the work area for scheduled production. • Show how to clean the work area and machineries to prepare for ice cream processing. • Display the procedure to rectify faults and minor repairs in process machinery. • Show how to maintain the tools and machines utilised for production.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	

White/Black board/ Chart paper, Markers/ computer and projector, Trainer's guide, student handbook, approved sanitizers for cleaning of the work area and machineries, approved lubricators, dustbins, necessary tools to attend minor repair work in process machinery, Motor (AC), Different Size of Stainless Steel (SS) Pipes, Different Size of Angles (SS), Different Size of Joint (SS), Different Size of Valves (SS), Plates of Heat Exchanger (SS), mixy, Weighing Machine, gas with burners and cream freezer

Module 7: Food Microbiology

Mapped to FIC/N2014,FIC/N2015, v1.0

Terminal Outcomes:

- List the tasks to be performed to prepare for dairy processing
- Demonstrate the techniques to be followed to inspect and prepare the raw materials as per desirable standards

Duration: *04:00*	**Duration**: *08:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• List the types of food microbes. • Explain the causes for food spoilage. • Describe the process for food spoilage. • Explain the criteria to check food spoilage. • Discuss the need for food preservation.	• Demonstrate different types of food preservation processes. .
Classroom Aids:	
White/Black board/ Chart paper, Markers/ computer and projector, Trainer's guide, student handbook	
Tools, Equipment and Other Requirements	
Nil	

Module 8: Preparation for Processing Ice cream

Mapped to FIC/N2014,FIC/N2015, v1.0

Terminal Outcomes:

- Discuss the stages involved in the preparation for processing dairy products
- Demonstrate the tasks to be performed for processing dairy products

Duration: *08:00*	**Duration**: *20:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Describe the process of planning. production sequence to maximize capacity utilization of resources. • List the factors affecting operation efficiency during production. • List the ingredients required for production. • Discuss the production process of pasteurization. • Explain the process of separation and bactofugation.	• Demonstrate the method of standardization of milk. • Demonstrate the method of homogenization of milk. • Demonstrate the method of heat exchange during pasteurization. • Perform HTST pasteurization. • Demonstrate the process of LTLT pasteurization.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	
Nil	

Module 9: Produce ice cream

Mapped to FIC/N2014 FIC/N2015, v1.0

Terminal Outcomes:

- Discuss the importance of recording information in production
- Demonstrate the standard practice followed to record production information

Duration: *14:00*	**Duration**: *90:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the process for producing ice-cream. • List the composition of different types of ice-cream. • Describe the method of pre-heating ice-cream mix. • Discuss the method of ageing the ice-cream mix. • Discuss State the method of estimating the overrun in ice-cream. • List the factors to consider during the packing of ice-cream. • List the materials used for packaging ice-cream. • Explain the method of hardening and storage in ice-cream.	• Demonstrate the process of making the mix. • Demonstrate the method of blending the ice-cream mix. • Perform the process of filtration for making an ice-cream mix. • Demonstrate the method of homogenization of ice-cream mix. • Perform pasteurization of ice-cream mix. • Demonstrate the method of cooling the ice-cream mix. • Demonstrate the method of freezing the ice-cream mix. • Demonstrate the process of producing frozen desserts. • Demonstrate the process of producing plain ice-cream. • Demonstrate the process of producing premium ice-cream. • Demonstrate the process of producing kulfi. • Demonstrate the process of producing syrup. • Demonstrate the process of cleaning the work area and machineries after production.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide,	

Participant's Handbook
Tools, Equipment and Other Requirements
Different Size of Valves (SS), Plates of Heat Exchanger (SS), Mixy, Muslin Cloth, Weighing Machine, Milk Sampling Bottle, Milk Stirer, Nut bolts (different Sizes), Can (Aluminium/SS), Thermometer, Test Tube (Glass), Test Tube Holder, Gas with Burner, Measurment Cane, Utensils to Heat the Milk, Joints/angles Opener, Cream Freezer, Fillers, Wrappers and Packers, Moulds (Ice Cream Moulds)

Module 10: Professional and Core Skills

Mapped to FIC/N2015 v1.0

Terminal Outcomes:

- Discuss the attributes of desirable professional behaviour
- Demonstrate the standard measures undertaken for working effectively

Duration: *02:00*	**Duration**: *05:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Identify personal strengths and weaknesses. • Discuss the importance of work order in the process. • Explain the importance of decision making in the job. • Explain the importance of communicating effectively.	• Apply standard practice to undertake a self-assessment test for identifying strengths and weaknesses. • Plan and prioritise tasks effectively to ensure timely completion. • Demonstrate the ways to analyse situations for identifying problems and making sound decision promptly.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	

Module 11: Document and record information

Mapped to FIC/N2016 v1.0

Terminal Outcomes:

- Discuss the importance of recording information in ice cream processing
- Demonstrate the standard practice followed to record production information

Duration: *02:00*	**Duration**: *05:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss the importance of documentation and maintaining records during the entire work process. • List the information to be recorded as per the production work.	• Document necessary information such as production plan, process parameters, and finished products. • Prepare records to record information as per production and organisational requirements.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	
Food safety manual, logbooks.	

Module 12: IT orientation
Bridge module

Terminal Outcomes:

- List the parts of a computer
- Demonstrate the effective use of data recording applications at the workplace

Duration: *03:00*	**Duration**: *08:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• List the various parts of a computer. • Describe the functions of different computer devices. • List the various applications used in recording information.	• Demonstrate the standard techniques used to operate a computer. • Show how to use an ERP software for recording information. • Demonstrate the effective use of applications such as word processor and spreadsheets.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	
Computer/laptop.	

Module 13: Ensuring food safety, personal hygiene and workplace sanitation
Mapped to FIC/N9001 v1.0

Terminal Outcomes:

- Discuss the importance of health and safety at the workplace
- Demonstrate the tasks to be performed for ensuring health and safety at the workplace

Duration: *06:00*	**Duration**: *20:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss the importance of safety, hygiene and sanitation in the dairy processing. • Discuss the relevant HACCP principles to be followed in the dairy industry.	• Demonstrate the steps to be performed to maintain a safe and hygiene workplace. • Demonstrate the steps to be performed to implement HACCP practices for ensuring food safety. • Roleplay a situation depicting the safety practices to be followed at the workplace.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	
Protective gloves, head caps, aprons, safety goggles, safety boots, mouth covers, sanitizer, food safety manual ,logbooks etc.	

Module 14: Conduct field visits

Bridge module

Terminal Outcomes:

- Discuss the importance of field visit

Duration: *08:00*	**Duration**: *20:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the storage facilities for raw materials and finished products. • List the various machineries used in process. • List the raw materials used and their storage procedures. • Discuss the packaging and storage processes of raw material and finished product.	• Select the factory location, layout and safety aspects of food processing. • Demonstrate the cleaning methods and processes followed to maintain the process machineries and tools. • Perform the post-production cleaning and maintenance process followed in the industry.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	
Food safety manual, logbooks.	

Module 15: Revision

Bridge Module

Terminal Outcomes:

- Revise all that is discussed in training

Duration: *02:00*	**Duration**: *03:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Revised the knowledge gained so far.	
Classroom Aids:	
All the tools and equipment listed above must be available at the time of revision	
Tools, Equipment and Other Requirements	
NIL	

Module 16: Evaluation

Bridge Module

Terminal Outcomes:

- Discuss the importance of recording information in ice cream processing
- Demonstrate the standard practice followed to record production information

Duration*: 06:00*	**Duration**: *18:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the elements of assessment of skills acquired	• Assess the knowledge and skills acquired by the participant
Classroom Aids:	
All the tools and equipment listed above must be available for evaluation	
Tools, Equipment and Other Requirements	
NIL	

Module 17 : 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**
• Discuss own strengths and weaknesses and analyse the gaps to ensure continuous improvement. • Discuss the measures to be undertaken to utilise time effectively thereby achieving maximum productivity. • List the characteristics of innovative individuals • List the levels of Maslow Hierarchy of needs • List the traits of effective team • Discuss tips for stress management • Discuss the importance of good work ethics • Discuss how to manage an enterprise • Describe how to plan effective strategies for solving problems and improving work culture within the team. • List the various types of digital marketing techniques. • Discuss the types and importance of e-commerce in promoting businesses. • List the various types of online banking services being used widely. • Discuss the procedure to apply for bank finances • List the elements of a proposal to attract future business opportunities and prospective clients. • Explain how to conduct entrepreneurial programs to identify business opportunities, generate employment and	• Show how to analyse a situation to identify gaps for improving the work process. • Demonstrate the procedure to plan the time taken to perform various tasks effectively. • Describe how market research is carried out • Role play the characteristics of an effective entrepreneur and leader • Demonstrate on how to identify new business opportunities • Prepare a sample plan to solve problems and improve productivity at the workplace. • Demonstrate the procedure to operate a computer for digital marketing, e-commerce, branding, etc. • Show how to use services such as NEFT, IMPS, UPI, RTGS for online banking.

increase clientele. • Understand the make in India campaign • Discuss the importance of Swachh Bharat Abhiyan • Understand the importance of 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

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification *<Select the minimum educational requirements, such as 12th Pass, Graduate or NSQF certified.>*	**Specialization** *<Specify the areas of specialization that are desirable.>*	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
Diploma	Dairy Technology	4	Dairy industry	1	Training of Ice cream processing technicians	
B. Sc./B. Tech/BE	Dairy Technology	2	Dairy industry	1	Training of Ice cream processing technicians	
M. Sc./M. Tech/ME	Dairy Technology	1	Dairy industry	1	Training of Ice cream processing technicians	

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role: "Ice Cream processing Technician" mapped to QP: "FIC/Q2004, v1.0". Minimum accepted score is 80%.	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "MEP/Q2601". Minimum accepted score as per MEPSC guidelines is 80%.

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification *<Select the minimum educational requirements, such as 12th Pass, Graduate or NSQF certified.>*	**Specialization** *<Specify the areas of specialization that are desirable.>*	**Relevant Industry Experience**		**Training/Assessment Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
Diploma	Dairy Technology	4	Dairy industry	1	Assessment of Ice cream processing technicians	
B. Sc./B. Tech/BE	Dairy Technology	2	Dairy industry	1	Assessment of Ice cream processing technicians	
M. Sc./M. Tech/ME	Dairy Technology	1	Dairy industry	1	Assessment of Ice cream processing technicians	

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for Job Role: "Ice Cream processing Technician" mapped to QP: "FIC/Q2004, v1.0". Minimum accepted score is 80%.	Recommended that the Assessor is certified for the Job Role: "Assessor", mapped to the Qualification Pack: "MEP/Q2701". Minimum accepted score as per MEPSC guidelines 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:

i. Written Test: This will comprise of (i) True / False Statements (ii) Multiple Choice Questions (iii) 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 behavioral aspects as regards the job role and the specific task at hand.

Glossary

Term	Description
Declarative 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 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 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 **upon the completion of the training**.
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand and be able to do **upon the completion of a module.** 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
HACCP	Hazard Analysis and Critical Control Points
GMP	Good Manufacturing Practices
GHP	Good Hygiene Practices