



Model Curriculum

QP Name: Industrial Baker

QP Code: FIC/Q5006

Version: 2.0

NSQF Level: 4.0

Model Curriculum Version: 2.0

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Training Parameters

Sector	Food Processing
Sub-Sector	Bread and Bakery
Occupation	Processing-Bread and Bakery
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7512.0300
Minimum Educational Qualification and Experience	12th Grade or Equivalent OR 10th Grade Pass or Equivalent with 3-year experience in food processing OR 8th Grade Pass or Equivalent with 6-year experience in food processing OR Previous relevant Qualification of NSQF Level 3.0 with 3-year of experience in food processing OR Previous relevant Qualification of NSQF Level 3.5 with 1.5-year relevant experience
Pre-Requisite License or Training	NA
Minimum Job Entry Age	16 Years
Last Reviewed On	22-10-2024
Next Review Date	21-10-2027
NSQC Approval Date	22-10-2024
QP Version	2.0
Model Curriculum Creation Date	30-08-2024
Model Curriculum Valid Up to Date	22-10-2027
Model Curriculum Version	2.0
Minimum Duration of the Course	390 Hours

Maximum Duration of the Course

390 Hours

Program Overview

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

Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills to:

- Describe the food processing sector and the role of an Industrial Bakery Operator.
- Discuss the career opportunities and the importance of the training program.
- Explain standard practices for preparing production, including ingredient handling and dough processing.
- Demonstrate the production process, including dough shaping, baking, and packaging.
- Elucidate the importance of personal hygiene and Good Manufacturing Practices (GMP) in baking operations.
- Apply food safety practices effectively at the workplace.
- Discuss employability and entrepreneurship skills relevant to the food processing sector.

Compulsory Modules

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

NOS and Module Details	Theory Duration (Hours)	Practical Duration (Hours)	On-the-Job Training Duration (Mandatory) (Hours)	On-the-Job Training Duration (Recommended) (Hours)	Total Duration (Hours)
FIC/N9026: Prepare for Production NOS Version No.: 1.0 NSQF Level: 3.0	20:00	40:00	00:00	00:00	60:00
Module 2: Carry Out Preparation for Production	20:00	40:00	00:00	00:00	60:00
FIC/N5003: Produce baked products in industrial units NOS Version No.: 2.0 NSQF Level: 4.0	60:00	120:00	90:00	00:00	270:00
Module 1: Introduction to Food Processing Sector and the Job Role of an Industrial Baker	05:00	00:00	00:00	00:00	05:00
Module 3: Carry Out Preparation for Production of Baked Items	20:00	30:00	30:00	00:00	80:00
Module 4: Carry Out Production of Baked Items	35:00	90:00	60:00	00:00	185:00
FIC/N9906: Apply food	10:00	20:00	00:00	00:00	30:00

safety guidelines in Food Processing NOS Version No.: 1.0 NSQF Level: 3					
Module 5: Implement Personal Hygiene and Follow Good Manufacturing Practices	05:00	10:00	00:00	00:00	15:00
Module 6: Apply Food Safety Practices at Workplace	05:00	10:00	00:00	00:00	15:00
DGT/VSQ/N0101: Employability Skills (30 Hours) NOS Version No.: 1.0 NSQF Level: 2	30:00	00:00	00:00	00:00	30:00
Module 7: Employability Skills (30 Hours)	30:00	00:00	00:00	00:00	30:00
Total Duration	120:00	180:00	90:00	00:00	390:00

Module Details

Module 1: Introduction to Food Processing Sector and the Job Role of an Industrial Baker

Mapped to FIC/N5003, v2.0

Terminal Outcomes:

- Describe the food processing sector in brief.
- Discuss the career opportunities available to the individual within the food processing sector.
- Explain the importance of training program and job role of an Industrial Bakery Operator.

Duration (in hours): 05:00	Duration (in hours): 00:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Define the term ‘food processing’. • Discuss the size and scope of the food processing industry in brief. • List the various sub sectors of food processing industry. • Explain the objective of training individuals for the job of an ‘Industrial Bakery Operator’. • Discuss the future trends and career growth opportunities available to the ‘Industrial Bakery Operator’. • Summarise the key role and responsibilities of a ‘Industrial Bakery Operator’. • State the importance of ensuring a tidy and a safe workplace. • List the various sub-units within an industrial baking unit. • List the sequence of operations to be performed in the job. 	
Classroom Aids	
Training Kit - Facilitator’s Guide, Participant’s Handbook, Presentations and Software, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
Nil	

Module 2: Carry Out Preparation for Production

Mapped to FIC/N9026, v1.0

Terminal Outcomes:

- Discuss the standard practices to be followed to plan for production.
- Demonstrate the tasks to be performed to prepare for the production process.

Duration (in hours): 15:00	Duration (in hours): 40:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss how to plan and prioritize the tasks to be performed. • State the importance of obtaining work instructions from supervisor to plan the work process. • State the importance of process chart, product flow chart, formulation, chart, etc. to obtain required information. • List the key considerations to prepare the work schedule. • Identify the resource requirements as per the production schedule. • Explain how to utilise the machine capacity of the machinery involved with respect to the processing time, production order and batch size for each product. • List the chemical agents, sanitisers and methods used to clean the work area. • Identify different kinds of waste material and comprehend the ways to dispose them safely. • Describe how to carry out inspection of tools, equipment, and machinery to be used in the job. • Discuss the policies and procedures to be followed to prepare for the work process. • State the importance of inspecting tools, equipment and machinery on a timely basis. 	<ul style="list-style-type: none"> • Show how to prepare a plan to carry out various tasks as required in the job. • Show how to prepare sample estimates for resource requirements to carry out the tasks. • Demonstrate method to be followed for cleaning (CIP, COP etc) and maintaining a clean work area. • Show how to identify, label and store different chemicals in food processing unit safely. • Demonstrate with help of roleplay a situation on how to allot work and responsibilities to the team and confirm that they have understood. • Demonstrate the procedure to be followed for disposing the waste material (wet, dry, plastic, packaging material, food waste and glass waste) as per environmentally safe practices. • Show how to inspect the tools, equipment and machinery thoroughly for production. • Demonstrate how to receive and organize the work materials appropriately.
Classroom Aids	
Training Kit - Facilitator's Guide, Participant's Handbook, Presentations and Software, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	

Process related documents, list of raw materials, tools, equipment and machinery, organizational documents, logbook, Packaging Material, Refrigerator, Gas Burner (LPG), LPG Cylinders, Work Table, Sinks.

Module 3: Carry Out Preparation for Production of Baked Items

Mapped to FIC/N5003, v2.0

Terminal Outcomes:

- Describe the process of selecting, weighing, and mixing ingredients for various baked products.
- Explain how to carry out the fermentation, molding, and proofing of dough to achieve desired consistency and quality.
- Demonstrate the quality checks required for ingredients and dough at different stages of preparation.
- Discuss the methods to adjust recipes and formulations based on ingredient properties and desired product characteristics.

Duration (in hours): 20:00	Duration (in hours): 30:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the applicable FSSAI food safety and hygiene standards for baking. • Describe the different types of raw materials, ingredients, and finishing materials required for making various baked products. • Discuss the chemical and physical properties of key baking ingredients like flour, sugar, fats, leavening agents, and flavourings. • Explain the different bread-making methods, such as sponge and dough system and straight dough system. • Describe the different baking processes, including mixing, proofing, baking, cooling, and packaging. • Explain the different mixing methods used for various bakery products, such as creaming, shortening, stirring method, rubbing-in method, whisking method, beating method, and folding method. • Describe the production process, process parameters, and formulations for different baked products. • Discuss the chemical reactions that occur during mixing, fermentation, and baking. • Discuss how to create and modify recipes to achieve desired characteristics such as taste, texture, and shelf life. • Describe the use and basic maintenance 	<ul style="list-style-type: none"> • Demonstrate how to check and organize the production order and formulation for the product/SKU. • Show how to check the quality of each ingredient to ensure conformance to standards. • Demonstrate how to weigh and take the specified amount of each ingredient as per the formulation. • Show how to sift the flour to remove lumps. • Demonstrate how to soften or melt the fat, if necessary. • Show how to blend and mix the ingredients at the recommended temperature and speed. • Demonstrate how to knead the ingredients to achieve the appropriate dough temperature. • Show how to carry out fermentation of the dough at the appropriate temperature and humidity levels. • Demonstrate how to check the viscosity and quality of the dough to ensure it conforms to the applicable specifications. • Show how to extrude the dough taking appropriate precautions.

<p>of tools and equipment used for baking various products.</p> <ul style="list-style-type: none"> • Explain the use of baking equipment, such as deck ovens, rack ovens, tunnel ovens, convection ovens, and rotary ovens. • Discuss the use of cooling and storage equipment and accessories, such as cooling racks, cooling tunnels, storage bins, and containers. • Describe the use of slicing and packaging equipment, such as bread slicers, baggers, wrappers, and labelers. • Explain the use of fermentation rooms, retarder/proofers, piping and depositing systems, conveyor systems, and sanitation equipment. • Discuss the use of relevant equipment for quality control, such as moisture meters, temperature probes and sensors, pH meters, and texture analyzers. • Explain automation and the relevant control systems, such as Programmable Logic Controllers (PLCs), Human-Machine Interfaces (HMIs), and Data Logging Systems. • Discuss how to monitor food product quality during production using ERP Systems, SCADA Systems, online cameras, and other methods. • Describe the appropriate precautions to be taken while preparing bakery products, including the use of relevant PPE. • Explain the quality parameters and standards to be maintained for bakery products. • Discuss the quality assessment of bakery products based on physical parameters. • Describe the different types of packaging materials used to pack various types of baked products. 	<ul style="list-style-type: none"> • Demonstrate how to carry out the second stage mixing of dough for the appropriate duration. • Show how to divide the fermented dough into pieces of the desired weight.
Classroom Aids	
Training Kit - Facilitator's Guide, Participant's Handbook, Presentations and Software, Whiteboard, Marker, Projector, Laptop, Video Films	

Tools, Equipment and Other Requirements

Oven, Baking Sheet and Rack, Proof Box, Refrigerator, Commercial Mixer, Wire Whisker, Packaging Machine, Protective Gloves, Head Caps, Ovens (Diesel), Ovens (Gas), Ovens(Elec.) Ovens(Wood) Baking sheet & Racks, Commercial Mixers, Wire whiskers, Baking Pan, Cooling racks, Measuring Cup & spoon, Thermometer, Digital Hygrometer, Fire extinguishers, High speed exhausts, Masks – Head cover, mouth cover, cleaning ingredients and tools, Aprons, Safety Goggles, Safety Boots, Mouth Masks, Sanitizer, Food Safety Manual, Mixing Bowl, Work Table, Sinks, Timer, Lab Chemicals for Testing and Glassware, Bread Slicer (Manual/Mechanical), Knives, Spatula, Utensils.

Module 4: Carry Out Production of Baked Items

Mapped to FIC/N5003, v2.0

Terminal Outcomes:

- Describe the process to roll, shape, and cut the dough for bread, pizza crust, biscuits, and other baked items.
- Explain how to prepare, mould, and shape the cake batter for dry cakes and other similar products.
- Discuss the steps involved in the baking and packing process, including temperature control, baking times, cooling, slicing, and packaging.
- Identify and perform the necessary post-production activities, such as cleaning equipment, maintaining hygiene standards, and documenting production details.

Duration (in hours): 35:00	Duration (in hours): 90:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the benefits of automation in the food industry. • Describe the equipment used in large-scale baking operations, including industrial mixers, dough sheeters, and proofing cabinets. • Determine the quality parameters and standards for bakery products. • Explain the physical quality assessment of bakery products, including texture and appearance. • Describe the types of packaging materials for various baked products, such as wrappers, boxes, and tins. • Explain the processes involved in producing and packing bread, including mixing, fermenting, proofing, baking, cooling, slicing, and packaging. • Discuss the methods for producing and packing pizza dough or crust, including dough preparation, proofing, shaping, partial baking, and packaging. • Describe the production and packing processes for biscuits, including dough preparation, cutting, baking, cooling, coating, filling, and packaging. • Explain the steps involved in producing and packing dry cakes, including batter preparation, baking, cooling, de-panning, trimming, coating, sampling, and 	<ul style="list-style-type: none"> • Show how to flatten the dough to a uniform thickness and form the dough into the desired shape as per the requirement. • Show how to carry out sheeting of dough into thin layers, as required. • Show how to cut the dough into uniform pieces for final shaping or baking. • Demonstrate the process of mixing the cake batter ingredients, such as flour, sugar, eggs, butter, leavening agents, and flavourings, ensuring even distribution of ingredients. • Show how to check for appropriate consistency, temperature, and viscosity of the batter. • Demonstrate how to prepare the baking pans by placing the paper liners in the moulds of the baking pans. • Show how to deposit the specified amounts of batter into moulds or pans, spread and level the batter within the moulds, to ensure an even surface and consistent baking. • Show how to carry out baking at the appropriate baking temperature and for the recommended duration to ensure even baking with the desired texture and flavour. • Demonstrate how to prepare centre-

<p>packaging.</p> <ul style="list-style-type: none"> Describe relevant environmental protection and sustainability practices in baking. Determine the documentation requirements for baking operations. 	<p>filled or sandwich biscuits following the applicable process.</p> <ul style="list-style-type: none"> Show how to identify and remove products that do not conform to the applicable quality standards. Show how to cool the baked products at the appropriate temperature, remove the baked products from the moulds, taking appropriate precautions to prevent any damage to them. Demonstrate how to identify and remove malformed biscuits. Show how to slice relevant baked products, such as bread, to the required thickness. Demonstrate the process of packing the baked products using the appropriate packaging material and equipment. Demonstrate how to sample the baked products and coordinate their quality analysis with the quality-testing laboratory. Show how to report any discrepancies/concerns to the supervisor for immediate resolution. Show how to carry out basic repair and maintenance of the tools, equipment, and machinery. Demonstrate how to ensure periodic maintenance of the tools, equipment, and machinery as per the manufacturer's instructions.
Classroom Aids	
Training Kit - Facilitator's Guide, Participant's Handbook, Presentations and Software, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
Oven, Baking Sheet and Rack, Proof Box, Refrigerator, Commercial Mixer, Wire Whisker, Packaging Machine, Protective Gloves, Head Caps, Ovens (Diesel), Ovens (Gas), Ovens(Elec.) Ovens(Wood) Baking sheet & Racks, Commercial Mixers, Wire whiskers, Baking Pan, Cooling racks, Measuring Cup & spoon, Thermometer, Digital Hygrometer, Fire extinguishers, High speed exhausts, Masks – Head cover, mouth cover, cleaning ingredients and tools, Aprons, Safety Goggles, Safety Boots, Mouth Masks, Sanitizer, Food Safety Manual, Mixing Bowl, Work Table, Sinks, Timer, Lab Chemicals for Testing and Glassware, Bread Slicer (Manual/Mechanical), Knives, Spatula, Utensils.	

Module 5: Implement Personal Hygiene and Follow Good Manufacturing Practices

Mapped to FIC/N9906, v1.0

Terminal Outcomes:

- Discuss the importance of personal hygiene and GMP at the workplace
- Demonstrate the tasks to be performed for ensuring personal hygiene and GMP practices at the workplace.

Duration (in hours): 05:00	Duration (in hours): 10:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Define hazards and risks. • Discuss the various types of health and safety equipment available in an organisation and the methods for obtaining them. • Discuss the organisational health and safety policies and procedures. • Discuss site relevant documented procedure for Personal Hygiene and Visitor/ Contractor rules. • Explain work instructions at levels of employee inside a food manufacturing site. • Discuss how to conduct timely planning and participation of relevant training and awareness sessions on personal hygiene, GMP and related topics. • Explain the importance of timely medical examination from a prescribed and authorized doctor and to comply with the guidelines of Schedule IV as described in Food Safety Standard Authority of India (FSSAI) guidelines. • State how to follow a site relevant documented procedure and area wise work instructions for Good Manufacturing Practices (GMP) to be followed on the site. • List validated Do's & Don'ts inside a food manufacturing firm. • State process flow charts, HACCP summary plan and critical process parameters in each and respective 	<ul style="list-style-type: none"> • Demonstrate the steps to be performed for implementing good manufacturing practices (GMP). • Demonstrate how to follow work instructions at levels of employee inside a food manufacturing site and ensure that the relevant instructions are well communicated and being followed at the fixed timelines. • Show how to fill data in daily monitoring checklist related to personal hygiene, food safety and GMP. • Demonstrate the process to follow man and materials movement throughout the production facility, to restrict unwanted hazards to cross contaminate the products which are being manufactured in the facility. • Show how to tag and number all the equipment, machinery, tools, and other processing aids to keep a proper traceability of the product being manufactured and handled at site. • Demonstrate process of record keeping and documentation such as Daily Monitoring Sheets, Batch Traceability Records, machine records, product parameters, process control parameters etc.

<p>areas of the production line.</p> <ul style="list-style-type: none"> • Explain how to identify the material requirements such as manufacturing equipment's, Utensils and other processing aids, cleaning chemicals, cleaning work instructions in all the relevant areas of manufacturing facility. • Define the Allergens, their risks and the allergen requirements. • State the relevance of guidelines in manufacturing area and how training evaluation will be implemented. • Explain the process of audits and ways to address the aspects of Good Manufacturing Procedures, personal hygiene and food safety. 	
Classroom Aids	
Training Kit - Facilitator's Guide, Participant's Handbook, Presentations and Software, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
GMP Format and Guidelines, Allergen Manual, Personal Hygiene Guidelines, PPE Kits.	

Module 6: Apply Food Safety Practices at Workplace

Mapped to FIC/N9906, v1.0

Terminal Outcomes:

- List the food safety practices at the workplace and the ways to implement them.
- Demonstrate the steps to be followed to implement food safety procedures effectively.

Duration (in hours): 05:00	Duration (in hours): 10:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • List the various types of health and safety hazards present in the environment. • Discuss the possible causes of risk, hazard or accident at the workplace. • Elucidate the standard practices and precautions used to control and prevent risks, hazards and accidents at the workplace. • Explain requirements to maintain updated facilities, equipment and tool to minimize the risks associated with the products being handled at the site. • State the importance of using protective equipment and clothing for specific tasks and work conditions. • Discuss the role of organisational protocols in preventing accidents and hazards. • Discuss the significance of various types of hazard and safety signs. • Explain FSSAI Schedule IV requirements related to: Pest Control, Cleaning and Sanitation, Utilities, Waste Disposal, Prevention of Cross Contamination, allergen management, corrective action, preventive actions, food operation control etc. • Discuss the relevance of checking critical control points and product parameters. • Explain importance of record keeping and documentation such as daily monitoring sheets, cleaning sheets, parameters etc. • Discuss how to report any food safety 	<ul style="list-style-type: none"> • Show how to apply appropriate techniques to deal with hazards safely and appropriately. • Demonstrate the steps for checking critical control points and product parameters. • Show how to record keeping and documentation such as daily monitoring sheets, cleaning sheets, parameters etc. • Demonstrate appropriate ways to respond to an accident situation or medical emergency promptly and appropriately. • Demonstrate the steps to be followed during emergency and evacuation procedure.

and GMP issue to supervisor, if any.	
Classroom Aids	
Training Kit - Facilitator's Guide, Participant's Handbook, Presentations and Software, Whiteboard, Marker, Projector, Laptop, Video Films	
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 7: Employability Skills (30 Hours)

Mapped to DGT/VSQ/N0101, v1.0

Duration: 30:00

Key Learning Outcomes

Introduction to Employability Skills Duration: 1 Hour

After completing this programme, participants will be able to:

1. Discuss the importance of Employability Skills in meeting the job requirements

Constitutional values - Citizenship Duration: 1 Hour

2. Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen.
3. Show how to practice different environmentally sustainable practices

Becoming a Professional in the 21st Century Duration: 1 Hour

4. Discuss 21st-century skills.
5. Display a positive attitude, self-motivation, problem-solving, time management skills and continuous learning mindset in different situations.

Basic English Skills Duration: 2 Hours

6. Use appropriate basic English sentences/phrases while speaking

Communication Skills Duration: 4 Hours

7. Demonstrate how to communicate in a well-mannered way with others.
8. Demonstrate working with others in a team

Diversity & Inclusion Duration: 1 Hour

9. Show how to conduct oneself appropriately with all genders and PwD
10. Discuss the significance of reporting sexual harassment issues in time

Financial and Legal Literacy Duration: 4 Hours

11. Discuss the significance of using financial products and services safely and securely.
12. Explain the importance of managing expenses, income, and savings.
13. Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws

Essential Digital Skills Duration: 3 Hours

14. Show how to operate digital devices and use the associated applications and features, safely and securely
15. Discuss the significance of using the internet for browsing, and accessing social media platforms, safely and securely

Entrepreneurship Duration: 7 Hours

16. Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges

Customer Service Duration: 4 Hours

17. Differentiate between types of customers

18. Explain the significance of identifying customer needs and addressing them

19. Discuss the significance of maintaining hygiene and dressing appropriately

Getting ready for Apprenticeship & Jobs Duration: 2 Hours

20. Create a biodata

21. Use various sources to search and apply for jobs

22. Discuss the significance of dressing up neatly and maintaining hygiene for an interview

23. Discuss how to search and register for apprenticeship opportunities

Module 8: On-the-Job Training

Mapped to Industrial Baker

Mandatory Duration: 90:00	Recommended Duration: 00:00
Location: On-Site	
Terminal Outcomes <ul style="list-style-type: none"> • Accurately select and measure ingredients as per production requirements and prepare them for use. • Effectively mix and knead dough to the required consistency and manage fermentation and proofing processes. • Produce bread by baking it according to set parameters and pack it appropriately to ensure quality and freshness. • Prepare and bake pizza dough or crust, and package it correctly to maintain product integrity. • Shape, bake, and package biscuits, ensuring they meet quality standards and are properly prepared for distribution. • Mix, bake, and package dry cakes, maintaining quality and ensuring they are ready for market. • Perform essential post-production tasks, including equipment cleaning, quality checks, and managing production records. 	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialisation	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
B.Sc.	Culinary Studies/ Culinary Art	3	Bread and Bakery Industry	1	Training of Industrial Bakery Operator	

Trainer Certification	
Domain Certification	Platform Certification
Certified for Job Role: “Industrial Baker” mapped to QP: “FIC/Q5006, v2.0”. Minimum accepted score is 80%.	Recommended that the Trainer is certified for the Job Role: “Trainer (VET and Skills)”, mapped to the Qualification Pack: “MEP/Q2601, v2.0”. The minimum accepted score as per MEPSC guidelines is 80%.

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
B.Sc.	Culinary Studies/Culinary Art	3	Bread and Bakery Industry	1	Training of Industrial Bakery Operator	

Assessor Certification	
Domain Certification	Platform Certification
Certified for Job Role: “Industrial Baker” mapped to QP: “FIC/Q5006, v2.0”. Minimum accepted score is 80%.	Certified for the Job Role: “Assessor (VET and Skills)”, mapped to the Qualification Pack: “MEP/Q2701, v2.0”, with a minimum score of 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. There in 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 banks 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 behavioural aspects as regards the job role and the specific task at hand.

On the Job:

1. Each module (which covers the job profile of Industrial Baker) will be assessed separately.
2. The candidate must score 70% in each module to successfully complete the OJT.
3. Tools of Assessment that will be used for assessing whether the candidate is having desired skills and etiquette of dealing with customers, understanding needs & requirements, assessing the customer and perform Soft Skills effectively:
 - Videos of Trainees during OJT
 - Answer Sheets of Question Banks
 - Assessing the Logbook entries of Trainees at Employer location
 - Employer Performance Feedback.

4. Assessment of each Module will ensure that the candidate is able to:

- Carry out the production of baked products in industrial units.
- Work effectively and efficiently to meet production schedules and timelines.
- Escalate any issues to the appropriate authority.
- Implement food safety guidelines in food processing.
- Develop employability skills to enhance workplace readiness.

References

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 it 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
NCVET	National Council for Vocational Education and Training
NVEQF	National Vocational Educational Qualification Framework
FICSI	Food Industry Capacity & Skill Initiative
QP	Qualification Pack
MC	Model Curriculum
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards
NCO	National Classification of Occupations
ES	Employability Skills
HACCP	Hazard Analysis and Critical Control Points
FSSAI	Food Safety and Standards Authority of India
GMPs	Good Manufacturing Practices
GHP	Good Hygiene Practices
PPE	Personal Protective Equipment
SOP	Standard Operating Procedure
QMS	Quality Management System
FEFO	First Expiry First Out
FIFO	First In First Out
COP	Clean Out of Place
CIP	Clean In Place