



Model Curriculum

QP Name: Assistant Baking Technician

QP Code: FIC/Q5005

QP Version: 4.0

NSQF Level: 3

Model Curriculum Version: 4.0

Food Industry Capacity and Skill
Initiative(FICSI) Shriram Bharatiya Kala
Kendra (3rd Floor) Copernicus Marg, New
Delhi 110001
Phone:9711260230

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Training Parameters

| | |
|---|---|
| Sector | Food Processing |
| Sub-Sector | Bread and Bakery |
| Occupation | Processing-Bread and Bakery |
| Country | India |
| NSQF Level | 3 |
| Aligned to NCO/ISCO/ISIC Code | NCO-2015/7512.0100 |
| Minimum Educational Qualification and Experience | Grade 10 pass & Equivalent OR Grade 8 pass with 3 years of relevant experience in Food Industry OR Previous Relevant Qualification of NSQF Level 2.5 with 1.5 years' experience in Food industry OR Previous Relevant Qualification of NSQF Level 2 with 3 years' experience - in Food industry |
| Pre-Requisite License or Training | NA |
| Minimum Job Entry Age | 16 years |
| Last Reviewed On | 27/08/2024 |
| Next Review Date | 26/08/2024 |
| Version | 4.0 |
| NSQC Approval Date | 27/08/2024 |
| Model Curriculum Creation Date | 20/05/2024 |
| Model Curriculum Valid Upto Date | 26/08/2024 |
| Model Curriculum Version | 4.0 |
| Minimum Duration of the Course | 300 Hours |
| Maximum Duration of the Course | 300 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 participants will be able to:

- Maintain work area and process machinery for baking appropriately
- Prepare for production of bakery products as per production needs
- Prepare bakery products as per standard work practices
- Document and record necessary documents
- Apply safety, hygiene and sanitation practices at the workplace effectively

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 |
|---|-----------------|--------------------|--|--|----------------|
| FIC/N9026 Prepare for production NOS Version No.: 1.0 NSQF Level: 3 | 20:00 | 40:00 | 00:00 | 00:00 | 60:00 |
| Module 1: Introduction to the Food Processing Sector and the Job of Baking Technician - Operative | 04:00s | 00:00 | 00:00 | 00:00 | 04:00 |
| Module 2: Prepare Workplace and Equipment for baking products | 16:00 | 40:00 | 00:00 | 00:00 | 56:00 |
| FIC/N5019 Bake products in the oven NOS VersionNo.:2.0 NSQF Level: 3 | 30:00 | 90:00 | 00:00 | 00:00 | 120:00 |
| Module 3: Bake bakery Products in the oven | 30:00 | 90:00 | 00:00 | 00:00 | 120:00 |

| | | | | | |
|---|--------------|---------------|--------------|--------------|---------------|
| FIC/N9906 – Apply food Safety guidelines in Food processing NOS Version No. 1.0 NSQF Level 3 | 10:00 | 20:00 | 00:00 | 00:00 | 30:00 |
| Module 4: Practice personal hygiene and follow Good Manufacturing Practices at the workplace | 05:00 | 10:00 | 00:00 | 00:00 | 15:00 |
| Module 5: Apply food safety practices at the workplace | 05:00 | 10:00 | 00:00 | 00:00 | 15:00 |
| DGT/VSQ/N0101 Employability Skills NOS Version No.: 1.0 NSQF Level: 2 | 12:00 | 18:00 | 00:00 | 00:00 | 30:00 |
| Module 6: Employability Skills | 12:00 | 18:00 | 00:00 | 00:00 | 30:00 |
| Total Duration | 72:00 | 168:00 | 60:00 | 00:00 | 300:00 |

Module Details

Module 1: Introduction to the Food Processing Sector and the Job of Baking Technician - Operative

Mapped to NOS FIC/N9026 v1.0

Terminal Outcomes: After the successful completion of this module, the participant will be able to:

- Discuss the roles and opportunities available for Assistant Baking Technician
- Explain food processing and its sub-sectors
- Discuss the current market and future trends of the food processing sector

| Duration: 04:00 | Duration: 00:00 |
|--|---------------------------------|
| Theory–Key Learning Outcomes | Practical–Key Learning Outcomes |
| <ul style="list-style-type: none"> • Discuss about the food processing industry and baking sector and its growth trends • Explain food processing. • List the various sub-sectors of food processing industry • Discuss the future trends and career growth opportunities available to baking technician in the food processing industry. • Summarize the key roles and responsibilities of Baking Technician • List and describe the different activities undertaken in the baking process, including sourcing, preparation, production, storage, packaging, and quality testing. • Identify and describe the potential applications of Industry 4.0 technologies, such as sensors, data analytics, and machine learning, in optimizing baking processes, enhancing quality control, and improving efficiency. | |
| Classroom Aids: | |
| Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook. | |
| Tools, Equipment and Other Requirements | |
| Nil | |

Module 2: Prepare Workplace and Equipment for baking products

Mapped to FIC/N9026 v 1.0

Terminal Outcomes: After the successful completion of this module, the participant will be able to:

- Discuss the standard practices to be followed for production
- Demonstrate the tasks to be performed at the workplace for planning the production

| Duration: 21:00 | Duration: 35:00 |
|---|--|
| Theory – Key Learning Outcomes | Practical – Key Learning Outcomes |
| <ul style="list-style-type: none"> • Discuss the significance of supervisors' work instructions with regards to the production requirements • Describe the relevance of planning and prioritising the production work • State the importance of planning and arranging the estimated resource requirement • Estimate the resource requirement as per the production requirement • Discuss the capacity utilisation of machinery with respect to the processing time, production order, and batch size for each product • List the materials and equipment used in cleaning and maintenance of the work area • List the sanitisers using in cleaning work area and machineries • Identify different kinds of waste material and comprehend the ways to dispose them safely • Specify the inspection procedure for inspecting the tools, equipment, and machinery used in the job • State the importance of reporting information such as faulty tools and equipment to the concerned authority | <ul style="list-style-type: none"> • Demonstrate how to analyse the process chart, product flow chart, formulation, chart, etc. • Exemplify the valuation of manpower and material requirement as per work requirement • Demonstrate how to estimate the resources requirements in terms of raw materials, packaging materials, machineries, and manpower • Show how to clean and sanitise the tools, equipment and the workplace • Exhibit the procedure to dispose the different kinds of waste material • Demonstrate the inspection procedure for the tools, equipment, and machinery. |

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| <ul style="list-style-type: none"> Explain the various factors to be considered while allocating responsibilities to the team | |
| Classroom Aids: | |
| Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook | |
| Tools, Equipment and Other Requirements | |
| Process related documents, list of raw materials, tools, equipment and machinery, organisational documents, and logbook. | |

Module 3: Bake bakery products in the oven

Mapped to FIC/N5019 v2.0

Terminal Outcomes: After the successful completion of this module, the participant will be able to:

- Discuss the stages involved in the production of baked products
- Demonstrate the tasks to be performed for producing baked products

| Duration: 30:00 | Duration: 90:00 |
|--|--|
| Theory–Key Learning Outcomes | Practical–Key Learning Outcomes |
| <ul style="list-style-type: none"> • Understand different raw materials (dough/batter) and their characteristics in relation to various baked products. • Explain the concept of proofing, the difference between under-proofed and over-proofed dough, their impact on the final product, and how to set proof box parameters. • Describe different oven heating systems, fuel types, and manufacturer instructions. Explain how to operate ovens and proof boxes to achieve desired product outcomes. • Interpret manufacturer instructions for safe equipment operation. • Explain cleaning procedures (CIP, COP) and the correct use/storage of sanitizers/disinfectants. • Describe how to properly disassemble and reassemble equipment for cleaning. • Explain company policies, procedures, and safety standards relevant to baking. Evaluate their effectiveness and suggest improvements. • Explain food safety principles, hygiene practices, equipment sanitation, and quality control measures. • Identify food safety hazards and safety risks associated with baking equipment, and explain preventive measures. | <ul style="list-style-type: none"> • Set up and calibrate proof boxes according to product specifications and SOPs. • Monitor and control proofing parameters (temperature, humidity) in proof boxes. • Load proof boxes and ovens following production sequences and spacing guidelines. • Monitor oven parameters (temperature, time) during baking. • Observe baked product color to determine doneness and identify under/over baking. • Unload ovens and proof boxes using proper techniques. • Check product quality through sensory parameters (color, size, appearance, texture, aroma). • Place baked products on cooling racks and transfer to the cooling area. Store baked products following FIFO principles. • Remove waste from baking pans, stack empty pans, and |

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| <ul style="list-style-type: none"> • Apply knowledge of raw materials, products, and processes to make informed decisions during baking operations. • Analyze production efficiency and formulate suggestions for optimization. • Compare different types of ovens (deck, rack, revolving, tunnel, etc.) and select the most suitable oven for specific baked products. • Troubleshoot deviations in process parameters (time, temperature, humidity) and their impact on product quality. • Analyze quality parameters (crust color, crumb texture, volume, taste) and identify potential defects in baked goods. • Interpret production/proofing charts to understand loading sequences and process parameters. • Explain the importance of accurate ingredient measurement and scaling for consistent product quality. • Set oven parameters (baking temperature, time) for various products. • Describe various mixing methods and their impact on dough/batter consistency. • Identify different leavening agents (yeast, baking powder, baking soda) and their functions/effects. • Explain the importance of proper dough shaping techniques for optimal texture and gluten development. • Describe how to observe filled baking pans to determine if they are filled to standard. • Describe principles of heat transfer in baking and the chemical reactions involved. • Explain safe storage practices for baked goods, including stabilizing internal temperature, promoting proper structure, and maintaining freshness. | <p>ensure proper storage.</p> <ul style="list-style-type: none"> • Adjust or reset oven controls for the next batch. • Report production discrepancies/concerns to the supervisor. • Select appropriate packaging materials. • Follow packaging procedures for sealing, labeling, and coding. • Inspect packaged products for defects. • Pack baked goods according to orders or configurations. • Store packaged products in designated areas, maintaining proper temperature and humidity. • Operate automated packaging equipment. • Visually inspect and clean packaging materials. • Clean and sanitize work areas, machinery, equipment, and tools. • Properly disassemble and reassemble equipment for cleaning. • Perform routine troubleshooting and minor repairs. • Implement and maintain a preventative maintenance program for baking equipment. • Maintain accurate records of equipment maintenance and repairs. • Monitor and control conveyor |
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| <ul style="list-style-type: none"> • Explain how to unload pans/trays immediately after baking to improve bread shape. • Identify types of automated machinery/software used in bakeries, including Programmable Logic Controllers (PLCs) and Supervisory Control and Data Acquisition (SCADA) systems. • Define key automation terminology and Explain how automated systems function, their interaction with manual tasks, common errors/malfunctions, troubleshooting procedures, and when automation is advantageous. • Describe how to operate control panels/interfaces for automated machinery. • Describe the role of ERP systems in bakery production, inventory control, and quality assurance. • Discuss the use of online cameras for remote monitoring. • Explain how to monitor and control conveyor speed in continuous oven operations. • Select appropriate packaging materials and techniques for different baked goods, ensuring freshness, preventing contamination, and meeting labeling requirements. • Describe preventative maintenance procedures for bakery equipment, including cleaning schedules, lubrication, and part replacement. • Identify common allergens in baked goods and procedures to prevent cross-contamination. • Explain the importance of cleaning and sanitizing the work area, machinery, equipment, and tools according to | <p>speed in continuous oven operations.</p> |
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| <p>established schedules and SOPs.</p> <ul style="list-style-type: none"> Describe the procedure of maintaining accurate records of equipment maintenance and repairs. | |
| Classroom Aids: | |
| Computer, Projection Equipment, Power Point Presentation and software, Facilitator's Guide, Participant's Handbook | |
| Tools, Equipment and Other Requirements | |
| Baking ovens, baking sheet and rack, proof box, refrigerator, commercial mixer, wire whisker, packaging machine, protective gloves, headcaps, aprons, safety goggles, safety boots, mouth masks, sanitiser and food safety manuals. | |

Module 4: Practice personal hygiene and follow Good Manufacturing Practices at workplace

Mapped to FIC/N9906 v 1.7

Terminal Outcomes: After the successful completion of this module, the participant will be able to:

- Apply personal hygiene and follow Good Manufacturing practices at workplace.
- Implement Food Safety and pre-requisite programs (PRP) at the workplace

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| Duration: 05:00 | Duration: 10:00 |
| Theory –Key Learning Outcomes | Practical–Key Learning Outcomes |
| <ul style="list-style-type: none"> • Define hazards and risks • Recall 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 procedures for Personal Hygiene and Visitor/ Contractor rules • Explain work instructions at levels of employees inside a food manufacturing site • Ensure timed planning and participation in relevant training and awareness sessions on personal hygiene, GMP, and related topics • Explain the importance of timely medical examination from a prescribed and authorised doctor and 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 areas of the production line | <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 • Illustrate 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 |

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| <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 | |
| Classroom Aids: | |
| Training kit (Trainer guide, Presentations), Whiteboard, Marker, Projector, Laptop, Presentation slides, Participant Handbook, etc | |
| Tools, Equipment and Other Requirements | |
| GMP format and guidelines, allergen manual, personal hygiene guidelines, etc. | |

Module 5: Apply food safety practices at the workplace

Mapped to FIC/N9906 v1.0

Terminal Outcomes: After the successful completion of this module, the participant will be able to:

- 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: 05:00 | Duration: 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 minimise 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 | <ul style="list-style-type: none"> • Apply appropriate techniques to deal with hazards safely and appropriately • Perform 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. • Perform the steps to be followed during emergency and evacuation procedure. |

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| sheets, cleaning sheets, parameters etc. • Discuss how to report any food safety and GMP issue to supervisor, if any | |
| 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 6: Employability skills

Mapped to DGT/VSQ/N0101, v 1.0

Terminal Outcomes: After the successful completion of this module, the participant will be able to:

- Describe the traits of individuals at workplace
- Apply employability and entrepreneurship skills at the workplace

| Duration: 12:00 | Duration: 18:00 |
|---|--|
| Theory – Key Learning Outcomes | Practical – Key Learning Outcomes |
| <ul style="list-style-type: none"> • Discuss your own strengths and weaknesses and analyse the gaps to ensure continuous improvement. • Discuss the measures to be undertaken to utilize time effectively thereby achieving maximum productivity. • List the characteristics of innovative individuals • List the levels of Maslow's 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 | <ul style="list-style-type: none"> • 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. |

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| <p>increase clientele.</p> <ul style="list-style-type: none"> • 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 | |

Module 7: On the Job Training

Mapped to Baking Technician – Operative FIC/Q5005

| Mandatory Duration: 60:00 | Recommended Duration: 00:00 |
|---|-----------------------------|
| Location: On-Site | |
| <ul style="list-style-type: none"> Identify key components of the baking process, including raw materials, equipment, and production stages. Explain the purpose and function of various baking equipment used in the bakery (ovens, proofers, mixers, etc.). Describe different types of bakery products and their basic characteristics. Understand and recall food safety regulations (FSSAI) and Good Manufacturing Practices (GMP) principles. Explain the importance of personal hygiene, sanitation, and pest control in a food production environment. Interpret production plans, flow charts, and process parameters for baking various products. Understand and follow instructions for cleaning and maintaining bakery equipment. Explain the purpose and operation of oven controls, including temperature settings, baking times, and pre-heating procedures. Grasp the concept of critical control points (CCPs) in food safety and their role in maintaining product quality. Recognise potential hazards and risks associated with baking operations and food handling. Plan and organise production tasks based on production schedules and material availability. Clean and maintain baking equipment following established protocols and sanitation procedures. Load, operate, and monitor baking ovens to ensure proper product baking and quality. Apply food safety practices, including proper handwashing, wearing appropriate attire, and maintaining a clean work environment. Participate in pest control activities and adhere to waste management procedures. Identify potential deviations from production plans and propose solutions to ensure timely completion of tasks. Analyse the quality of baked goods and troubleshoot issues related to underbaking, overbaking, or inconsistencies. Investigate the cause of food safety concerns and suggest corrective actions to prevent future occurrences. Analyse the effectiveness of cleaning and sanitation procedures and suggest improvements if necessary. Evaluate space and equipment limitations and propose solutions to optimise production processes. Assess the quality of baked goods based on established criteria such as color, size, texture, and aroma. Evaluate the effectiveness of implemented food safety practices to ensure consumer safety. Monitor and maintain production efficiency by identifying areas for improvement and suggesting process optimisations. Evaluate the performance of teammates and provide constructive feedback to promote | |

continuous improvement.

- Analyse customer feedback on baked goods and suggest modifications to enhance product offerings.
- Demonstrate safe work practices while operating machinery and handling potentially hazardous materials.
- Maintain clear and concise communication with colleagues and supervisors regarding production tasks and potential issues.
- Work effectively and collaboratively within the bakery team to achieve production goals.
- Adapt to changing priorities and demonstrate flexibility in the dynamic bakery environment.
- Maintain a positive and professional attitude while contributing to a productive and safe work environment.

Trainer Requirements

Annexure

| Trainer Prerequisites | | | | | | |
|-----------------------------------|-------------------------------------|------------------------------|-----------------|---------------------|--------------------------------|---------|
| Minimum Educational Qualification | Specialisation | Relevant Industry Experience | | Training Experience | | Remarks |
| | | Years | Specialisation | Years | Specialisation | |
| Diploma | Food Tech or Food Engineering | 4 | Bakery industry | 1 | Training of baking technicians | |
| B.Sc./B. Tech/BE | Food Technology or Food Engineering | 2 | Bakery industry | 1 | Training of baking technicians | |
| M.Sc./M. Tech/ME | Food Technology or Food Engineering | 1 | Bakery industry | 1 | Training of baking technicians | |

| Trainer Certification | |
|---|---|
| Domain Certification | Platform Certification |
| Certified for Job Role: “Baking Technician/Operative” mapped to QP: “FIC/Q5005, v3.0”. The minimum accepted score is 80%. | Recommended that the Trainer is certified for the Job Role: “Trainer” (VET & SKILLS), mapped to the Qualification Pack: “MEP/Q2601”, V.2. Minimum accepted SCORE IS 80 % as per SSC guidelines. |

Assessor Requirements

| Assessor Prerequisites | | | | | | |
|-----------------------------------|-------------------------------------|------------------------------|-----------------|--------------------------------|----------------------------------|---------|
| Minimum Educational Qualification | Specialisation | Relevant Industry Experience | | Training/Assessment Experience | | Remarks |
| | | Years | Specialisation | Years | Specialisation | |
| Diploma | Food Tech or Food Engineering | 4 | Bakery industry | 1 | Assessment of baking technicians | |
| B.Sc./B. Tech/BE | Food Technology or Food Engineering | 2 | Bakery industry | 1 | Assessment of baking technicians | |
| M.Sc./M. Tech/ME | Food Technology or Food Engineering | 1 | Bakery industry | 1 | Assessment of baking technicians | |

| Assessor Certification | |
|---|---|
| Domain Certification | Platform Certification |
| Certified for Job Role: "Baking Technician/Operative" mapped to QP: "FIC/Q5005, v3.0". Minimum accepted score is 80%. | Recommended that the Assessor is certified for the Job Role: "Assessor" (VET & SKILLS), mapped to the Qualification Pack: "MEP/Q2701", V-2. Minimum accepted SCORE IS 80 % as per SSC guidelines. |

Assessment Strategy

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

Mention the detailed assessment strategy in the provided template.

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 behavioural aspects as regards the job role and the specific task at hand. Assessment will be based on the concept of Independent Assessors empanelled with Assessment

On the Job:

1. Each module (which covers the job profile of Agar Tree Artificial Inoculation Technician will be assessed separately.

2. The candidate must score 50% 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 Log Book entries of Trainees at Employer location
 - Employer Performance Feedback.
4. Assessment of each Module will ensure that the candidate is able to:
 - Carry out production of fortified food
 - Work effectively and efficiently as per schedules and timelines.
 - Escalate the problem to appropriate authority.
 - Implement safety practices.
 - Optimize the use of resources to ensure less wastage and maximum conservation.

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 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 psycho motor 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 |