



Baking Technician/Operative

QP Code: FIC/Q5005

Version: 2.0

NSQF Level: 4

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Qualification Pack

Contents

FIC/Q5005: Baking Technician/Operative	3
<i>Brief Job Description</i>	3
Applicable National Occupational Standards (NOS)	3
<i>Compulsory NOS</i>	3
<i>Qualification Pack (QP) Parameters</i>	3
FIC/N5017: Prepare and maintain work area and machineries for baking products in the oven	5
FIC/N5018: Prepare for baking products in the oven	10
FIC/N5019: Bake bakery products in the oven	16
FIC/N5020: Complete documentation and record keeping related to baking products in the oven ...	24
FIC/N9001: Ensure food safety, hygiene and sanitation for processing food products	30
Assessment Guidelines and Weightage	35
<i>Assessment Guidelines</i>	35
<i>Assessment Weightage</i>	36
Acronyms	37
Glossary	38

Qualification Pack

FIC/Q5005: Baking Technician/Operative

Brief Job Description

A Baking Technician/Operative is responsible for baking of products, maintaining their consistency and quality, while meeting defined SOPs and leveraging his/her skills to operate ovens in synchronisation with proof box/ rest of the plant/ unit.

Personal Attributes

A Baking Technician/Operative must have the ability to plan, organize, prioritize, calculate and handle pressure. S/he must possess reading, writing and communication skills. In addition, the individual must have stamina to be able to stand for long hours, have personal and professional hygiene and an understanding of food safety standards and requirements.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [FIC/N5017: Prepare and maintain work area and machineries for baking products in the oven](#)
2. [FIC/N5018: Prepare for baking products in the oven](#)
3. [FIC/N5019: Bake bakery products in the oven](#)
4. [FIC/N5020: Complete documentation and record keeping related to baking products in the oven](#)
5. [FIC/N9001: Ensure food safety, hygiene and sanitation for processing food products](#)

Qualification Pack (QP) 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-2004/7412.20

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Minimum Educational Qualification & Experience	12th Class (Any Stream) OR 10th Class (2 years of course in relevant stream) OR 10th Class with 2 Years of experience relevant experience OR 10th Class + I.T.I (2 years)
Minimum Level of Education for Training in School	10th Class
Pre-Requisite License or Training	1. Baking process for all baked process 2. Training on food standards for baked products 3. Operating different types of baking ovens 4. GMP 5. HACCP 6. QMS 7. Computer basics 8. Training in food Safety Standards and Regulations (as per FSSAI) (Mandatory)
Minimum Job Entry Age	18 Years
Last Reviewed On	29/07/2021
Next Review Date	29/07/2024
Deactivation Date	29/07/2024
NSQC Approval Date	29/07/2021
Version	2.0
Reference code on NQR	2021/FI/FICSI/04377
NQR Version	1.0

Qualification Pack

FIC/N5017: Prepare and maintain work area and machineries for baking products in the oven

Description

This unit is about preparing work area for hygiene and safety, and ensuring performance, efficiency and maintenance of process machineries and tools for baking products in the oven, as per the specifications and standards of the organization.

Elements and Performance Criteria

Prepare and maintain work area (for baking products in the oven)

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

- PC1.** clean and maintain the cleanliness of the work area using approved sanitizers and keep it free from dust, waste, flies and pests
- PC2.** ensure that the work area is safe and hygienic for food processing
- PC3.** dispose waste materials as per defined SOPs and industry requirements

Prepare and maintain process machineries and tools (for baking products in the oven)

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

- PC4.** check the working and performance of all machineries and tools used for production
- PC5.** clean the machineries and tools used with approved sanitizers following specifications and sops
- PC6.** place the necessary tools required for process
- PC7.** attend to the minor repairs/ faults of all machines, if required

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organization standards, process standards and procedures followed in the organization
- KU2.** types of products produced by the organization
- KU3.** code of business conduct
- KU4.** dress code to be followed
- KU5.** job responsibilities/duties and standard operating procedures
- KU6.** internal processes such as procurement, store management, inventory management, quality management and key contact points for query resolution
- KU7.** provision of wages, working hours as per organisation policy
- KU8.** food safety and hygiene standards followed
- KU9.** types of chemicals, materials and equipment required for cleaning and maintenance
- KU10.** cleaning process to disinfect equipment/ tools
- KU11.** knowledge on food safety standards and Regulations (as per FSSAI)
- KU12.** supplier/manufacturers instructions related to cleaning and maintenance

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- KU13.** knowledge on legal regulations pertaining to work place such as health and safety, recommended dosage for use of sanitizers, control of substances hazardous to health, handling/storage/ disposal/ cautions for use of sanitizers

Generic Skills (GS)

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

- GS1.** note the information communicated by the supervisor
- GS2.** note the raw materials used for production and the finished products produced
- GS3.** note the readings of the process parameters and provide necessary information to fill the process chart
- GS4.** note down observations (if any) related to the process
- GS5.** write information documents to internal departments/ internal teams
- GS6.** note down the data for ERP or as required by the organization
- GS7.** read and interpret the process required for producing various types of products
- GS8.** read and interpret and process flowchart for all products produced
- GS9.** read equipment manuals and process documents to understand the equipment operation and process requirement
- GS10.** read internal information documents sent by internal teams
- GS11.** discuss task lists, schedules and activities with the supervisor
- GS12.** effectively communicate with the team members
- GS13.** question the supervisor in order to understand the nature of the problem and to clarify queries
- GS14.** attentively listen and comprehend the information given by the speaker
- GS15.** communicate clearly with the supervisor and cross department team on the issues faced
- GS16.** analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue
- GS17.** handle issues in case the supervisor is not available (as per the authority matrix defined by the organization)
- GS18.** plan and organize the work order and jobs received from the supervisor
- GS19.** organize raw materials and packaging materials required for all products following the instruction provided by the supervisor
- GS20.** plan and prioritize the work based on the instructions received from the supervisor
- GS21.** plan to utilise time and equipment's effectively
- GS22.** organize all process/ equipment manuals so as to access information easily
- GS23.** support the supervisor in scheduling tasks for helper(s)
- GS24.** understand customer requirements and their priority and respond as per their needs
- GS25.** supervisor in solving problems by detailing out problems
- GS26.** the possible solutions with the supervisor for problem solving
- GS27.** apply domain information about maintenance processes and technical knowledge about tools and equipment
- GS28.** use common sense and make judgments on day to day basis



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- GS29.** use reasoning skills to identify and resolve basic problems
- GS30.** use intuition to detect any potential problems which could arise during operations
- GS31.** use acquired knowledge of the process for identifying and handling issues

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare and maintain work area (for baking products in the oven)</i>	18	32	-	-
PC1. clean and maintain the cleanliness of the work area using approved sanitizers and keep it free from dust, waste, flies and pests	10	15	-	-
PC2. ensure that the work area is safe and hygienic for food processing	3	7	-	-
PC3. dispose waste materials as per defined SOPs and industry requirements	5	10	-	-
<i>Prepare and maintain process machineries and tools (for baking products in the oven)</i>	17	33	-	-
PC4. check the working and performance of all machineries and tools used for production	5	10	-	-
PC5. clean the machineries and tools used with approved sanitizers following specifications and sops	5	10	-	-
PC6. place the necessary tools required for process	2	3	-	-
PC7. attend to the minor repairs/ faults of all machines, if required	5	10	-	-
NOS Total	35	65	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N5017
NOS Name	Prepare and maintain work area and machineries for baking products in the oven
Sector	Food Processing
Sub-Sector	Bread and Bakery
Occupation	Processing
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	29/07/2021
Next Review Date	29/07/2024
Deactivation Date	29/07/2024
NSQC Clearance Date	29/07/2021

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FIC/N5018: Prepare for baking products in the oven

Description

This unit is about preparation of baking various bakery products in an oven through planning production, equipment utilization and manpower and preparing proof box and oven

Elements and Performance Criteria

Plan Production (for baking products in an oven)

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

- PC1.** read and understand the production order from the supervisor
- PC2.** plan production sequence by: grouping products that need to be baked immediately after mixing/creaming grouping similar kind of products (e.g.. fermented products such as bread, buns, puff etc.) grouping products that require same process parameters like baking temperature, time etc. grouping products that require proofing process group products that does not impact the quality of the other when baked together planning maximum capacity utilization of machineries prioritizing urgent orders

Plan equipment utilization and manpower (for baking products in an oven)

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

- PC3.** check the working and performance of each equipment required for process, particularly the fuel flow and burner, proofer/ oven, conveyor, control panel, etc.
- PC4.** calculate the process time for each batch for effective utilization of machineries
- PC5.** plan to utilize machineries for multiple products without affecting the quality of the finished products, and to optimize production and saving energy
- PC6.** allot responsibilities/ work to the assistants and helpers

Organize equipment (for baking products in an oven)

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

- PC7.** refer to the process chart/ product flow chart for product(s) baked
- PC8.** organize required oven racks/pans
- PC9.** arrange required cooling racks
- PC10.** prepare the proof box by setting parameters such as temperature, humidity, etc. prepare and calibrate oven (in case of batch operation) by pre-heating the oven to the specified temperature as per the oven chart
- PC11.** prepare and calibrate oven (in case of batch operation) by pre-heating the oven to the specified temperature as per the oven chart
- PC12.** prepare the conveyor (in case of continuous operation) by setting the speed of conveyor, baking time, and temperature controls
- PC13.** ensure working and performance of equipments by starting equipment(s),and observing gauges to maintain heat according to specifications
- PC14.** keep the tools accessible to attend minor repairs/faults in case of breakdown
- PC15.** handle emergency situations (e.g.: fire, power failure) while baking

Knowledge and Understanding (KU)

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The individual on the job needs to know and understand:

- KU1.** organization standards, process standards and procedures followed in the organization
- KU2.** types of products produced by the organization
- KU3.** code of business conduct
- KU4.** dress code to be followed
- KU5.** job responsibilities/duties and standard operating procedures
- KU6.** internal processes such as procurement, store management, inventory management, quality management and key contact points for query resolution
- KU7.** provision of wages, working hours as per organisation policy
- KU8.** food safety and hygiene standards followed
- KU9.** types of raw materials (dough/batter) and various baked products
- KU10.** types of fuels (diesel, etc.)
- KU11.** types of oven baking process - continuous and batch baking
- KU12.** various types of oven used for baking and ovens used in the organization
- KU13.** handling of all types of ovens and oven operation (continuous/batch), and proof box
- KU14.** maintenance of process equipments (oven, proof box)
- KU15.** supplier/manufacturers instructions related to machineries
- KU16.** process and process parameters for each product handled
- KU17.** basic mathematics
- KU18.** quality parameters
- KU19.** food safety and hygiene
- KU20.** GMP
- KU21.** HACCP

Generic Skills (GS)

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

- GS1.** note the information communicated by the supervisor
- GS2.** note the raw materials used for production and the finished products produced
- GS3.** note the readings of the process parameters and provide necessary information to fill the process chart
- GS4.** note down observations (if any) related to the process
- GS5.** write information documents to internal departments/ internal teams
- GS6.** note down the data for ERP or as required by the organization
- GS7.** read and interpret the process required for producing various types of products
- GS8.** read and interpret and process flowchart for all products produced
- GS9.** read equipment manuals and process documents to understand the equipment operation and process requirement
- GS10.** read internal information documents sent by internal teams
- GS11.** discuss task lists, schedules and activities with the supervisor

Qualification Pack

- GS12.** effectively communicate with the team members
- GS13.** question the supervisor in order to understand the nature of the problem and to clarify queries
- GS14.** attentively listen and comprehend the information given by the speaker
- GS15.** communicate clearly with the supervisor and cross department team on the issues faced
- GS16.** analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue
- GS17.** handle issues in case the supervisor is not available (as per the authority matrix defined by the organization)
- GS18.** plan and organize the work order and jobs received from the supervisor
- GS19.** organize raw materials and packaging materials required for all products following the instruction provided by the supervisor
- GS20.** plan and prioritize the work based on the instructions received from the supervisor
- GS21.** plan to utilise time and equipment's effectively
- GS22.** organize all process/ equipment manuals so as to access information easily
- GS23.** support the supervisor in scheduling tasks for helper(s)
- GS24.** understand customer requirements and their priority and respond as per their needs
- GS25.** supervisor in solving problems by detailing out problems
- GS26.** the possible solutions with the supervisor for problem solving
- GS27.** apply domain information about maintenance processes and technical knowledge about tools and equipment
- GS28.** use common sense and make judgments on day to day basis
- GS29.** use reasoning skills to identify and resolve basic problems
- GS30.** use intuition to detect any potential problems which could arise during operations
- GS31.** use acquired knowledge of the process for identifying and handling issues

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Plan Production (for baking products in an oven)</i>	9	16	-	-
PC1. read and understand the production order from the supervisor	4	6	-	-
PC2. plan production sequence by: grouping products that need to be baked immediately after mixing/creaming grouping similar kind of products (e.g.. fermented products such as bread, buns, puff etc.) grouping products that require same process parameters like baking temperature, time etc. grouping products that require proofing process group products that does not impact the quality of the other when baked together planning maximum capacity utilization of machineries prioritizing urgent orders	5	10	-	-
<i>Plan equipment utilization and manpower (for baking products in an oven)</i>	9	16	-	-
PC3. check the working and performance of each equipment required for process, particularly the fuel flow and burner, proofer/ oven, conveyor, control panel, etc.	2.5	5	-	-
PC4. calculate the process time for each batch for effective utilization of machineries	2.5	5	-	-
PC5. plan to utilize machineries for multiple products without affecting the quality of the finished products, and to optimize production and saving energy	2	3	-	-
PC6. allot responsibilities/ work to the assistants and helpers	2	3	-	-
<i>Organize equipment (for baking products in an oven)</i>	17	33	-	-
PC7. refer to the process chart/ product flow chart for product(s) baked	1	4	-	-
PC8. organize required oven racks/pans	1	4	-	-
PC9. arrange required cooling racks	1	4	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. prepare the proof box by setting parameters such as temperature, humidity, etc. prepare and calibrate oven (in case of batch operation) by pre-heating the oven to the specified temperature as per the oven chart	4	6	-	-
PC11. prepare and calibrate oven (in case of batch operation) by pre-heating the oven to the specified temperature as per the oven chart	2	3	-	-
PC12. prepare the conveyor (in case of continuous operation) by setting the speed of conveyor, baking time, and temperature controls	2	3	-	-
PC13. ensure working and performance of equipments by starting equipment(s), and observing gauges to maintain heat according to specifications	2	3	-	-
PC14. keep the tools accessible to attend minor repairs/faults in case of breakdown	2	3	-	-
PC15. handle emergency situations (e.g.: fire, power failure) while baking	2	3	-	-
NOS Total	35	65	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N5018
NOS Name	Prepare for baking products in the oven
Sector	Food Processing
Sub-Sector	Bread and Bakery
Occupation	Processing
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	29/07/2021
Next Review Date	29/07/2024
Deactivation Date	29/07/2024
NSQC Clearance Date	29/07/2021

Qualification Pack

FIC/N5019: Bake bakery products in the oven

Description

This unit is about producing various baked products in the oven.

Elements and Performance Criteria

Handle proofing(in case of bread preparation)

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

- PC1.** set the proof box to the required temperature and humidity following the proofing chart, as per specifications and organization standards
- PC2.** refer to the production chart/proofing chart to understand the loading sequence
- PC3.** load the proof box following the production sequence
- PC4.** monitor proof box parameters such as temperature/humidity
- PC5.** monitor product in the proof box
- PC6.** pull bread at specified heights from proof box
- PC7.** monitor the proof box and product coming out of the proof box

Baking in oven

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

- PC8.** pre-heat the oven to specified temperature and check humidity level (if specified)
- PC9.** refer to the production chart/proofing chart to understand the loading sequence and process parameters for each product baked
- PC10.** set the oven parameters such as baking temperature and time for the product baked
- PC11.** observe filled baking pans (to be loaded in oven) to determine whether pans are filled to standard
- PC12.** load the ovens with filled baking pans and check that the dough pieces are placed corner to corner
- PC13.** observe spacing between pans as per defined SOPs
- PC14.** monitor and control speed of conveyor to control pans entering oven and to control baking time of various baking product (in continuous operation)
- PC15.** monitor oven parameters such as temperature and time during baking process
- PC16.** observe colour of the baking product to detect under/ over baking and to achieve finished product of uniform quality
- PC17.** unload the oven when the baking process is complete
- PC18.** check the quality of the product through sensory parameters such as colour, size, appearance, texture, aroma. etc.
- PC19.** unload the pans/trays using proper technique (this must be done immediately after being taken out of the oven to improve the overall shape of the bread)
- PC20.** place baked product on the cooling racks and transfer to the cooling room/cooling area
- PC21.** remove excess waste from the baking pans
- PC22.** stack the emptied baking pans in the designated area
- PC23.** ensure that empty pans are stored appropriately to avoid damage and contamination

Qualification Pack

- PC24.** adjust or reset controls of the oven to load the next batch product
- PC25.** report discrepancies/concerns in each stage of production to department supervisor for immediate action

Post production cleaning and regular maintenance of equipments

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

- PC26.** clean the work area, machineries, equipment and tools using recommended cleaning agents and sanitizers
- PC27.** attend minor repairs/faults of all machines (if any)
- PC28.** ensure periodic (daily/weekly/monthly/quarterly/half yearly/annual) maintenance of all machines and equipment following the sop or following suppliers instructions/manuals

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organization standards, process standards and procedures followed in the organization
- KU2.** types of products produced by the organization
- KU3.** code of business conduct
- KU4.** dress code to be followed
- KU5.** job responsibilities/duties and standard operating procedures
- KU6.** internal processes such as procurement, store management, inventory management, quality management and key contact points for query resolution
- KU7.** provision of wages, working hours as per organisation policy
- KU8.** food safety and hygiene standards followed
- KU9.** knowledge of fuels and oven heating systems
- KU10.** types of raw materials (dough/batter) and various baked products
- KU11.** under proofed / over proofed dough
- KU12.** types of oven baking process - continuous and batch baking
- KU13.** various types of oven used for baking and ovens used in the organization
- KU14.** handling all types of ovens and oven operation (continuous/batch), and proof box
- KU15.** maintenance of process equipments (oven, proof box)
- KU16.** supplier/manufacturers instructions related to machineries
- KU17.** process and process parameters for each product handled
- KU18.** cooling procedures for all products handled
- KU19.** storage procedures for raw materials and finished goods
- KU20.** cleaning procedures such as CIP and COP
- KU21.** knowledge of sanitizers and disinfectants and its handling and storing methods
- KU22.** fire safety
- KU23.** hand in machine safety
- KU24.** food laws and regulations on product, packaging and labelling
- KU25.** quality parameters
- KU26.** food safety and hygiene and orientation to process and product quality

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KU27. GMP

KU28. HACCP

Generic Skills (GS)

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

- GS1.** note the information communicated by the supervisor
- GS2.** note the raw materials used for production and the finished products produced
- GS3.** note the readings of the process parameters and provide necessary information to fill the process chart
- GS4.** note down observations (if any) related to the process
- GS5.** write information documents to internal departments/ internal teams
- GS6.** note down the data for ERP or as required by the organization
- GS7.** read and interpret the process required for producing various types of products
- GS8.** read and interpret and process flowchart for all products produced
- GS9.** read equipment manuals and process documents to understand the equipment operation and process requirement
- GS10.** read internal information documents sent by internal teams
- GS11.** discuss task lists, schedules and activities with the supervisor
- GS12.** effectively communicate with the team members
- GS13.** question the supervisor in order to understand the nature of the problem and to clarify queries
- GS14.** attentively listen and comprehend the information given by the speaker
- GS15.** communicate clearly with the supervisor and cross department team on the issues faced
- GS16.** analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue
- GS17.** handle issues in case the supervisor is not available (as per the authority matrix defined by the organization)
- GS18.** plan and organize the work order and jobs received from the supervisor
- GS19.** organize raw materials and packaging materials required for all products following the instruction provided by the supervisor
- GS20.** plan and prioritize the work based on the instructions received from the supervisor
- GS21.** plan to utilise time and equipment's effectively
- GS22.** organize all process/ equipment manuals so as to access information easily
- GS23.** support the supervisor in scheduling tasks for helper(s)
- GS24.** understand customer requirements and their priority and respond as per their needs
- GS25.** supervisor in solving problems by detailing out problems
- GS26.** the possible solutions with the supervisor for problem solving
- GS27.** apply domain information about maintenance processes and technical knowledge about tools and equipment
- GS28.** use common sense and make judgments on day to day basis



Qualification Pack

- GS29.** use reasoning skills to identify and resolve basic problems
- GS30.** use intuition to detect any potential problems which could arise during operations
- GS31.** use acquired knowledge of the process for identifying and handling issues

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Handle proofing(in case of bread preparation)</i>	13	20	-	-
PC1. set the proof box to the required temperature and humidity following the proofing chart, as per specifications and organization standards	2	3	-	-
PC2. refer to the production chart/proofing chart to understand the loading sequence	1	2	-	-
PC3. load the proof box following the production sequence	2	3	-	-
PC4. monitor proof box parameters such as temperature/humidity	2	3	-	-
PC5. monitor product in the proof box	2	3	-	-
PC6. pull bread at specified heights from proof box	2	3	-	-
PC7. monitor the proof box and product coming out of the proof box	2	3	-	-
<i>Baking in oven</i>	19.5	39.5	-	-
PC8. pre-heat the oven to specified temperature and check humidity level (if specified)	1	3	-	-
PC9. refer to the production chart/proofing chart to understand the loading sequence and process parameters for each product baked	1	2	-	-
PC10. set the oven parameters such as baking temperature and time for the product baked	1	2	-	-
PC11. observe filled baking pans (to be loaded in oven) to determine whether pans are filled to standard	1	2	-	-
PC12. load the ovens with filled baking pans and check that the dough pieces are placed corner to corner	0.5	1.5	-	-
PC13. observe spacing between pans as per defined SOPs	0.5	1.5	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. monitor and control speed of conveyor to control pans entering oven and to control baking time of various baking product (in continuous operation)	1	2	-	-
PC15. monitor oven parameters such as temperature and time during baking process	2	3	-	-
PC16. observe colour of the baking product to detect under/ over baking and to achieve finished product of uniform quality	2	3	-	-
PC17. unload the oven when the baking process is complete	1	2	-	-
PC18. check the quality of the product through sensory parameters such as colour, size, appearance, texture, aroma. etc.	2	3	-	-
PC19. unload the pans/trays using proper technique (this must be done immediately after being taken out of the oven to improve the overall shape of the bread)	1	2	-	-
PC20. place baked product on the cooling racks and transfer to the cooling room/cooling area	1	2	-	-
PC21. remove excess waste from the baking pans	1	2	-	-
PC22. stack the emptied baking pans in the designated area	1	2	-	-
PC23. ensure that empty pans are stored appropriately to avoid damage and contamination	0.5	1.5	-	-
PC24. adjust or reset controls of the oven to load the next batch product	1	3	-	-
PC25. report discrepancies/concerns in each stage of production to department supervisor for immediate action	1	2	-	-
<i>Post production cleaning and regular maintenance of equipments</i>	2.5	5.5	-	-
PC26. clean the work area, machineries, equipment and tools using recommended cleaning agents and sanitizers	1	2	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC27. attend minor repairs/faults of all machines (if any)	0.5	1.5	-	-
PC28. ensure periodic (daily/weekly/monthly/quarterly/half yearly/annual) maintenance of all machines and equipment following the sop or following suppliers instructions/manuals	1	2	-	-
NOS Total	35	65	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N5019
NOS Name	Bake bakery products in the oven
Sector	Food Processing
Sub-Sector	Bread and Bakery
Occupation	Processing
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	29/07/2021
Next Review Date	29/07/2024
Deactivation Date	29/07/2024
NSQF Clearance Date	29/07/2021

Qualification Pack

FIC/N5020: Complete documentation and record keeping related to baking products in the oven

Description

This unit is about documenting and maintaining records of raw materials, process and finished products related to baking products in the oven.

Elements and Performance Criteria

Document and maintain record of raw material (related to baking products in the oven)

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

- PC1.** record details of all raw materials handled (dough/batter) and document the raw material details such as raw materials handled, condition and weight of the raw material while receiving, after proofing process, before loading in oven etc., as per company standards.
- PC2.** maintain record of observations (if any) related to raw materials, packaging materials
- PC3.** verify the documents and track them from finished product to raw materials, in case of quality concerns, and during quality management system audit

Document and maintain record of production schedule and process parameters (related to baking products in the oven)

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

- PC4.** document production plan with details such as the product details, production sequence, equipments and machinery details, efficiency and capacity utilization of equipment
- PC5.** document process details such as type of raw material used, process parameters (temperature, time etc. as applicable) for entire process handled in process chart or production log for all products produced
- PC6.** document batch size, raw material used, yield after each stage of process, wastage, energy utilization and final products produced
- PC7.** maintain record of observations (if any) or deviations related to process and production
- PC8.** verify documents and track them from finished product to raw material/s

Document and maintain record of finished products

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

- PC9.** document and maintain records of the types of finished products
- PC10.** document the finished products details such as weight of product, baking time, cooling condition, cooling time, batch number, time of packing, quality parameters (physical parameters), bath number, date of manufacture, date of expiry, other label details etc., as per company standards
- PC11.** maintain record of observations or deviations (if any) related to finished products
- PC12.** verify the documents and track from finished product to raw materials, in case of quality concerns and for quality management system audit

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

Qualification Pack

- KU1.** organization standards, process standards and procedures followed in the organization
- KU2.** types of products produced by the organization
- KU3.** code of business conduct
- KU4.** dress code to be followed
- KU5.** job responsibilities/duties and standard operating procedures
- KU6.** internal processes such as procurement, store management, inventory management, quality management and key contact points for query resolution
- KU7.** provision of wages, working hours as per organisation policy
- KU8.** food safety and hygiene standards followed
- KU9.** documentation system followed in the organization such as production chart, process chart and finished goods chart
- KU10.** details of raw materials and finished products to be recorded
- KU11.** details of production plan and process parameters to be recorded
- KU12.** methods to record and maintain record of observations (if any) related to raw materials, process and finished products
- KU13.** method to track back the record from finished product to raw material
- KU14.** enter details in ERP system followed by the organization

Generic Skills (GS)

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

- GS1.** note the information communicated by the supervisor
- GS2.** note the raw materials used for production and the finished products produced
- GS3.** note the readings of the process parameters and provide necessary information to fill the process chart
- GS4.** note down observations (if any) related to the process
- GS5.** write information documents to internal departments/ internal teams
- GS6.** note down the data for ERP or as required by the organization
- GS7.** read and interpret the process required for producing various types of products
- GS8.** read and interpret and process flowchart for all products produced
- GS9.** read equipment manuals and process documents to understand the equipment operation and process requirement
- GS10.** read internal information documents sent by internal teams
- GS11.** discuss task lists, schedules and activities with the supervisor
- GS12.** effectively communicate with the team members
- GS13.** question the supervisor in order to understand the nature of the problem and to clarify queries
- GS14.** attentively listen and comprehend the information given by the speaker
- GS15.** communicate clearly with the supervisor and cross department team on the issues faced
- GS16.** analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue

Qualification Pack

- GS17.** handle issues in case the supervisor is not available (as per the authority matrix defined by the organization)
- GS18.** plan and organize the work order and jobs received from the supervisor
- GS19.** organize raw materials and packaging materials required for all products following the instruction provided by the supervisor
- GS20.** plan and prioritize the work based on the instructions received from the supervisor
- GS21.** plan to utilise time and equipment's effectively
- GS22.** organize all process/ equipment manuals so as to access information easily
- GS23.** support the supervisor in scheduling tasks for helper(s)
- GS24.** understand customer requirements and their priority and respond as per their needs
- GS25.** support supervisor in solving problems by detailing out problems
- GS26.** discuss the possible solutions with the supervisor for problem solving
- GS27.** apply domain information about maintenance processes and technical knowledge about tools and equipment
- GS28.** use common sense and make judgments on day to day basis
- GS29.** use reasoning skills to identify and resolve basic problems
- GS30.** use intuition to detect any potential problems which could arise during operations
- GS31.** use acquired knowledge of the process for identifying and handling issues

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Document and maintain record of raw material (related to baking products in the oven)</i>	12	8	-	-
PC1. record details of all raw materials handled (dough/batter) and document the raw material details such as raw materials handled, condition and weight of the raw material while receiving, after proofing process, before loading in oven etc., as per company standards.	6	4	-	-
PC2. maintain record of observations (if any) related to raw materials, packaging materials	3	2	-	-
PC3. verify the documents and track them from finished product to raw materials, in case of quality concerns, and during quality management system audit	3	2	-	-
<i>Document and maintain record of production schedule and process parameters (related to baking products in the oven)</i>	33	22	-	-
PC4. document production plan with details such as the product details, production sequence, equipments and machinery details, efficiency and capacity utilization of equipment	8	7	-	-
PC5. document process details such as type of raw material used, process parameters (temperature, time etc. as applicable) for entire process handled in process chart or production log for all products produced	13	7	-	-
PC6. document batch size, raw material used, yield after each stage of process, wastage, energy utilization and final products produced	6	4	-	-
PC7. maintain record of observations (if any) or deviations related to process and production	3	2	-	-
PC8. verify documents and track them from finished product to raw material/s	3	2	-	-
<i>Document and maintain record of finished products</i>	15	10	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC9. document and maintain records of the types of finished products	3	2	-	-
PC10. document the finished products details such as weight of product, baking time, cooling condition, cooling time, batch number, time of packing, quality parameters (physical parameters), bath number, date of manufacture, date of expiry, other label details etc., as per company standards	6	4	-	-
PC11. maintain record of observations or deviations (if any) related to finished products	3	2	-	-
PC12. verify the documents and track from finished product to raw materials, in case of quality concerns and for quality management system audit	3	2	-	-
NOS Total	60	40	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N5020
NOS Name	Complete documentation and record keeping related to baking products in the oven
Sector	Food Processing
Sub-Sector	Bread and Bakery
Occupation	Processing
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	29/07/2021
Next Review Date	29/07/2024
Deactivation Date	29/07/2024
NSQC Clearance Date	29/07/2021

Qualification Pack

FIC/N9001: Ensure food safety, hygiene and sanitation for processing food products

Description

This unit is about maintaining food safety, hygiene and sanitation in work area and processing unit for processing food products

Elements and Performance Criteria

Perform safety and sanitation related functions (for processing food products)

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

- PC1.** comply with food safety and hygiene procedures followed in the organization
- PC2.** ensure personal hygiene by use of gloves, hairnets, masks, ear plugs, goggles, shoes, etc.
- PC3.** ensure hygienic production of food by inspecting raw materials, ingredients, finished products etc. for compliance to physical, chemical and microbiological parameters
- PC4.** pack products in appropriate packaging materials, label and store them in designated area, free from pests, flies and infestations
- PC5.** clean, maintain and monitor food processing equipment periodically, using it only for the specified purpose
- PC6.** use safety equipment such as fire extinguisher, eye wash unit, first aid kit when required
- PC7.** follow housekeeping practices by having designated area for machines/tools
- PC8.** follow industry standards like GMP, HACCP and product recall process
- PC9.** attend training on hazard management to understand types of hazards such as physical, chemical and biological hazards and measures to control and prevent them
- PC10.** Identify, document and report problems such as rodents and pests to management
- PC11.** conduct workplace checklist audit before and after work to ensure safety and hygiene
- PC12.** document and maintain raw material, packaging material, process and finished products for the credibility and effectiveness of the food safety control system

Apply food safety practices (for processing food products)

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

- PC13.** determine the quality of food using criteria such as odour, appearance, taste and best before date, and take immediate measures to prevent spoilage
- PC14.** store raw materials, finished products and allergens separately to prevent cross contamination
- PC15.** label raw materials and finished products and store them in different storage areas according to safe food practices
- PC16.** follow stock rotation based on FEFO/FIFO

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organization standards, process standards and procedures followed in the organisation

Qualification Pack

- KU2.** types of products produced by the organisation
- KU3.** code of business conduct
- KU4.** dress code to be followed
- KU5.** job responsibilities/duties and standard operating procedures
- KU6.** internal processes such as procurement, store management, inventory management, quality management and key contact points for query resolution
- KU7.** provision of wages, working hours as per organisation policy
- KU8.** food safety and hygiene standards followed
- KU9.** possible physical, chemical and biological hazards and methods of prevention of various hazards
- KU10.** personal hygiene requirement
- KU11.** different types of sanitizers used for process area, equipment and the procedure to use them
- KU12.** knowledge on food safety standards and regulations (as per fssai)
- KU13.** quality parameters and quality assessment based on physical parameters, basic food microbiology
- KU14.** labelling/marketing requirements for raw materials, finished goods, stored materials, packaging materials and their designated storage area
- KU15.** cleaning and sanitation of equipment and work area
- KU16.** CIP and COP methods and procedures
- KU17.** storage norms for raw materials, packaging material and finished products
- KU18.** stock rotation of ingredients and finished products based on FEFO/FIFO
- KU19.** method of maintaining safety check lists for all machineries
- KU20.** GHP
- KU21.** GMP
- KU22.** HACCP

Generic Skills (GS)

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

- GS1.** note the information communicated by the supervisor
- GS2.** note the raw materials used for production and the finished products produced
- GS3.** note the readings of the process parameters and provide necessary information to fill the process chart
- GS4.** note down observations (if any) related to the process
- GS5.** write information documents to internal departments/ internal teams
- GS6.** note down the data for online ERP or as per applicability in the organization
- GS7.** read and interpret the process required for producing various types of products
- GS8.** read and interpret and process flowchart for all products produced
- GS9.** read equipment manuals and process documents to understand the equipment operation and process requirement
- GS10.** read internal information documents sent by internal teams

Qualification Pack

- GS11.** discuss task lists, schedules and activities with the supervisor
- GS12.** effectively communicate with the team members
- GS13.** question the supervisor in order to understand the nature of the problem and to clarify queries
- GS14.** attentively listen and comprehend the information given by the speaker
- GS15.** communicate clearly with the supervisor and cross department teams on the issues faced during process
- GS16.** analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue
- GS17.** handle issues in case the supervisor is not available (as per the authority matrix defined by the organization)
- GS18.** plan and organize the work order and jobs received from the supervisor
- GS19.** organize raw materials and packaging materials required for all products following the instruction provided by the supervisor
- GS20.** plan and prioritize the work based on the instructions received from the supervisor
- GS21.** plan to utilise time and equipment's effectively
- GS22.** organize all process/ equipment manuals so as to access information easily
- GS23.** support the supervisor in scheduling tasks for helper(s)
- GS24.** understand customer requirements and their priority and respond as per their needs
- GS25.** support supervisor in solving problems by detailing out problems
- GS26.** discuss the possible solutions with the supervisor for problem solving
- GS27.** apply domain information about maintenance processes and technical knowledge about tools and equipment
- GS28.** use common sense and make judgments on day to day basis
- GS29.** use reasoning skills to identify and resolve basic problems
- GS30.** use intuition to detect any potential problems which could arise during operations
- GS31.** use acquired knowledge of the process for identifying and handling issues

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Perform safety and sanitation related functions (for processing food products)</i>	25	50	-	-
PC1. comply with food safety and hygiene procedures followed in the organization	2	3	-	-
PC2. ensure personal hygiene by use of gloves, hairnets, masks, ear plugs, goggles, shoes, etc.	1	5	-	-
PC3. ensure hygienic production of food by inspecting raw materials, ingredients, finished products etc. for compliance to physical, chemical and microbiological parameters	2	3	-	-
PC4. pack products in appropriate packaging materials, label and store them in designated area, free from pests, flies and infestations	4	6	-	-
PC5. clean, maintain and monitor food processing equipment periodically, using it only for the specified purpose	2	3	-	-
PC6. use safety equipment such as fire extinguisher, eye wash unit, first aid kit when required	4	6	-	-
PC7. follow housekeeping practices by having designated area for machines/tools	2	3	-	-
PC8. follow industry standards like GMP, HACCP and product recall process	4	6	-	-
PC9. attend training on hazard management to understand types of hazards such as physical, chemical and biological hazards and measures to control and prevent them	1	4	-	-
PC10. Identify, document and report problems such as rodents and pests to management	1	4	-	-
PC11. conduct workplace checklist audit before and after work to ensure safety and hygiene	1	4	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. document and maintain raw material, packaging material, process and finished products for the credibility and effectiveness of the food safety control system	1	3	-	-
<i>Apply food safety practices (for processing food products)</i>	10	15	-	-
PC13. determine the quality of food using criteria such as odour, appearance, taste and best before date, and take immediate measures to prevent spoilage	2	3	-	-
PC14. store raw materials, finished products and allergens separately to prevent cross contamination	2	3	-	-
PC15. label raw materials and finished products and store them in different storage areas according to safe food practices	2	3	-	-
PC16. follow stock rotation based on FEFO/FIFO	4	6	-	-
NOS Total	35	65	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N9001
NOS Name	Ensure food safety, hygiene and sanitation for processing food products
Sector	Food Processing
Sub-Sector	Fruits and Vegetables
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	30/09/2021
Next Review Date	30/07/2024
Deactivation Date	30/07/2024
NSQC Clearance Date	30/09/2021

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

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

Qualification Pack

7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Minimum Aggregate Passing % at QP Level : 70

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

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
FIC/N5017.Prepare and maintain work area and machineries for baking products in the oven	35	65	-	-	100	15
FIC/N5018.Prepare for baking products in the oven	35	65	-	-	100	20
FIC/N5019.Bake bakery products in the oven	35	65	-	-	100	25
FIC/N5020.Complete documentation and record keeping related to baking products in the oven	60	40	-	-	100	15
FIC/N9001.Ensure food safety, hygiene and sanitation for processing food products	35	65	-	-	100	25
Total	200	300	-	-	500	100

Qualification Pack

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Qualification Pack

Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.

Qualification Pack

Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.