

# Model Curriculum

## Plant Manager

**SECTOR: FOOD PROCESSING**

**SUB-SECTOR: FRUIT & VEGETABLE, FOOD GRAIN MILLING (INCLUDING OILSEEDS), DAIRY PRODUCTS, MEAT & POULTRY, FISH & SEAFOOD, BREAD & BAKERY, ALCOHOLIC BEVERAGES, AERATED WATER/ SOFT DRINKS, SOYA FOOD, PACKAGED FOOD**

**OCCUPATION: PROCESSING**

**REF ID: FIC/Q9004, V1.0**

**NSQF LEVEL: 9**



**Certificate**

**CURRICULUM COMPLIANCE TO  
QUALIFICATION PACK – NATIONAL OCCUPATIONAL  
STANDARDS**

is hereby issued by the

**FOOD INDUSTRY CAPACITY AND SKILL INITIATIVE (FICSI)**

for the

**MODEL CURRICULUM**

Complying to National Occupational Standards of  
Job Role/Qualification Pack: **'Plant Manager'**  
QP No. **'FIC/Q0004, Version 1.0, NSQF Level 9'**

Date of Issuance: **March 30, 2018**

Valid up to: **March 30, 2019**

\* Valid up to the next review date of the Qualification Pack

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Authorised Signatory  
(Food Industry Capacity and Skill Initiative)

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# Plant Manager

## CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Plant Manager”, in the “Food Processing” Sector/Industry and aims at building the following key competencies amongst the learner

<b>Program Name</b>	<b>Plant Manager</b>		
<b>Qualification Pack Name &amp; Reference ID. ID</b>	FIC/Q9004, v1.0		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	30/03/2016
<b>Pre-requisites to Training</b>	Preferably Class 12 and 6-7 years' experience in a food processing unit		
<b>Training Outcomes</b>	<p><b>After completing this programme, participants will be able to:</b></p> <ul style="list-style-type: none"> <li>• Daily management of food processing unit</li> <li>• Coordination of food processing unit operations including production planning, managing human resources, supply chain, production operation, maintenance, quality assurance, storage and distribution of finished products.</li> </ul>		

This course encompasses 3 out of 3 National Occupational Standards (NOS) of “Plant Manager” Qualification Pack issued by “Food Industry Capacity and Skill Initiative”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<b>Introduction to the training program</b>  <b>Theory Duration</b> (hh:mm) 00:30  <b>Practical Duration</b> (hh:mm) 00:00  <b>Corresponding NOS Code</b> Bridge Module	<ul style="list-style-type: none"> <li>Introduce each other and build rapport with fellow participants and the trainer.</li> </ul>	White board/Chart papers, marker
2	<b>Overview of the “Plant Manager” Role</b>  <b>Theory Duration</b> (hh:mm) 01:00  <b>Practical Duration</b> (hh:mm) 00:00  <b>Corresponding NOS Code</b>	<ul style="list-style-type: none"> <li>Understanding the roles and responsibilities of plant manager</li> <li>Awareness of the nature and availability of job opportunities</li> </ul>	Laptop/computer white board, marker, projector, chart papers
3	<b>Introduction to the Food Processing Industry</b>  <b>Theory Duration</b> (hh:mm) 01:30  <b>Practical Duration</b> (hh:mm) 00:00  <b>Corresponding NOS Code</b>	<ul style="list-style-type: none"> <li>Define food processing</li> <li>List the various sub sectors of food processing industry</li> </ul>	Laptop, white/black board, marker, chart papers, projector, Trainer’s guide, Student manual
4	<b>Introduction to food processing process</b>  <b>Theory Duration</b> (hh:mm) 02:00  <b>Practical Duration</b> (hh:mm)	<ul style="list-style-type: none"> <li>List the common machineries used in food processing</li> <li>Explain the process of testing food for accepted quality standards</li> <li>Demonstrate the test for checking the quality of food</li> <li>Describe the procedure for processing various food</li> </ul>	Laptop, white board, marker, chart papers, projector, trainer’s guide and student handbook

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	04:00 <b>Corresponding NOS Code</b>	<ul style="list-style-type: none"> <li>Identify different equipment used in food industry</li> </ul>	
5	<b>Organizational standards and norms</b>  <b>Theory Duration</b> (hh:mm) 04:00  <b>Practical Duration</b> (hh:mm) 02:00  <b>Corresponding NOS Code</b>	<ul style="list-style-type: none"> <li>State the roles and responsibilities of a plant manager</li> <li>State how to conduct yourself at the workplace</li> <li>State the personal hygiene and sanitation guidelines</li> <li>State the food safety hygiene standards to follow in a work environment</li> </ul>	Laptop, white board, marker, chart papers, projector, trainer's guide and student handbook, protective gloves, head caps, aprons, safety goggles, safety boots, mouth masks, sanitizer, safety manual
6	<b>Lead operations of a food processing unit</b>  <b>Theory Duration</b> (hh:mm) 15:00  <b>Practical Duration</b> (hh:mm) 11:40  <b>Corresponding NOS Code</b> FIC/N9017	<ul style="list-style-type: none"> <li>Develop operational plans for the operation of food processing unit that is consistent with the objectives and goals of organisation, and to produce quantity and quality products</li> <li>Develop operational plan that is flexible and complements supply chain, inventory, human resource, production, maintenance, quality and logistics management of production unit</li> <li>Develop operational plan to improve output in all areas of functions with the objective to reduce overall cost, and to produce quantity and quality products</li> <li>Develop operational plan considering national and international regulatory requirements, health and safety, food safety and hygiene requirements on process and product(s), and to maintain safe and environmental compliant workplace</li> <li>Develop objectives and set demanding but achievable targets for operation function managers, and assign clear responsibilities with expected targets/performance</li> <li>Provide direction and professional expertise to all function managers to achieve organisation goals</li> <li>Monitor and control the operational plan to achieve its overall objectives</li> </ul>	Laptop, white board, marker, chart papers, projector, trainer's guide and student handbook

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>• Evaluate the implemented operational plan periodically, analyze performance data, identify areas for improvement and recommend changes</li> <li>• Monitor performance of managers and employees to ensure that departmental and individual objectives are achieved within scheduled timelines and budget</li> <li>• Design new work processes, procedures, systems, structures and roles for any changes implemented in the organisation to achieve organizational goal and regulatory requirements</li> <li>• Review and ensure implemented changes are effective and meet the requirements of the organization</li> <li>• Maintain professionalism, tact, diplomacy, sensitivity, diversity and equality, and lead food processing unit to achieve organisation objectives and goals</li> <li>• Ensure that work arrangements, resources and business processes respond to different needs, abilities and values</li> <li>• Develop and implement new business strategies for improving processes and procedures to improve performance</li> <li>• Develop a leadership style and apply them appropriately for managers to follow the lead willingly to achieve organisation targets and goals</li> <li>• Communicate clearly the organisation vision, values and goals to employees, make managers understand and commit their expertise to achieve organisation goals</li> <li>• Lead managers of all operation functions, link operational plans and drive managers towards achieving organisation vision, objectives and goals</li> <li>• Lead managers through difficulties, challenges and conflicts</li> <li>• Conduct meetings with managers regularly and effectively, encourage them to share their views, provide guidance and support to overcome process issues and lead to achieve organisation goal</li> </ul>	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>• Encourage managers to take lead in their own areas of expertise, take own decisions in their area of function, and provide recognitions when they are successful</li> <li>• Lead the managers and organisation successfully through difficulties and challenges</li> <li>• Design processes with achievable targets and realistic timeline, proper resource allocation, with defined process responsibilities to manage food processing operation based on organizational goals</li> <li>• Develop processes that are effective and sustainable, implement and ensure it is followed, review its effectiveness and make necessary changes if required</li> <li>• Develop process measures that are affordable, and provide enough information and required training for managers and employees to manage the process</li> <li>• Review and understand resource requirements for process and allocate necessary resources to all functional areas</li> <li>• Develop systems to link all function processes, and encourage function heads and employees to interact across the organisation to form a complete system</li> <li>• Establish effective methods to review the quality of work and product, and improve the process</li> <li>• Focus attention on issues that are critical to achieve results, provide solutions and guidance to overcome the issues that affect the process</li> <li>• Identify issues and trends and recognize their impact upon current and future work, work out solutions and implementation plan to overcome and utilize latest trends to achieve long term goals of the organisation</li> <li>• Develop policies and procedures for any change in organisation goal, organisation structure PC31. set responsibilities for managers, set and prioritize objectives for change, clearly communicate change and make the managers understand their responsibilities and commitment</li> </ul>	



Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>Implement change, identify and deal with obstacles to change, and support managers and employees through the change process</li> <li>Brief managers on their responsibilities and make them understand their role, objectives for their area and the overall organisation, and expected performance</li> <li>Monitor progress and performance quality of the managers on regular basis against the level of expected performance and provide prompt and constructive feedback PC35. support managers in identifying and dealing with problems and unforeseen events</li> <li>Identify gaps and performance issues, discuss the causes and recommend solutions to improve performance of managers and their team</li> <li>Monitor performance, analyze employee strength and weakness, and make changes in their tasks/responsibilities</li> <li>Review performance and update work plans in their area, monitor and conduct review meetings on regular basis, recognize successful completion of work or work activities by function manager(s) and their teams</li> <li>Motivate managers to complete expected target and any additional work allocated and provide additional support and resources to complete work</li> </ul>	
7	<p><b>Ensure proper production and operation management</b></p> <p><b>Theory Duration</b> (hh:mm) 08:00</p> <p><b>Practical Duration</b> (hh:mm) 12:00</p> <p><b>Corresponding NOS Code</b> FIC/N9018</p>	<ul style="list-style-type: none"> <li>Update self with an understanding of the goals of the organisation and forecast/requirements of the sales and marketing manager, with the knowledge of production method and process, plant capacity, resource availability, plan products and quantity to be produced</li> <li>Monitor and regulate supply chain management which includes sourcing and procurement, conversion of raw materials to finished products, all logistics activities, coordination and collaboration with suppliers,</li> </ul>	Laptop, white board, marker, chart papers, projector, trainer's guide and student handbook ,

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<p>intermediaries, third party service providers, and customers, to integrate supply and demand management within and across companies</p> <ul style="list-style-type: none"> <li>• Monitor and regulate inventory process to meet the production requirement of the organisation, review current procurement procedures, analyze benefits and risks that may impact the procurement of supplies, implement plans and methods to improve and provide solutions to resolve any immediate problems</li> <li>• Evaluate current storage methods and identify ways of improving the storage of supplies to provide better fit with supply chain strategy</li> <li>• During production process, coordinate production activities with procurement, maintenance, and quality control function to obtain optimum production and efficient utilization of human resources, machines and equipment</li> <li>• Make adjustments/revise/reschedule production schedules and priorities in case of breakdown down of equipment/issues with physical or human resource/ urgent orders/unforeseen issues or any operational problems</li> <li>• Direct production activities and establish production priorities to produce quantity and quality products within the operation budget</li> <li>• Review and analyze human resource, production, quality control, maintenance, and operational reports to identify reason for nonconformance/ non-compliance to organisation and regulatory standards for product and process, develop and implement operating methods and procedures to eliminate problems and improve product and process quality</li> <li>• Monitor storage and distribution of products to and from the plant/processing unit warehouse, ensure storage and distribution norms and procedures like palletizing, stacking height, labeling, fefo etc are followed</li> </ul>	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>• Establish systems to collect and assess information on performance of all functions, analyze data and evaluate performance of departments and organisation, through knowledge and understanding identify reasons for problems and low performance</li> <li>• Establish and implement methods and procedures for improvement, ensure implemented methods deliver expected result, and identify opportunities to improve organization performance</li> <li>• Read financial responsibilities, compile available financial information, evaluate the cost, benefits and risks of the current budget, and estimate financial requirements for operation of food processing unit</li> <li>• Consult with department managers the objectives and associated plans, discuss and identify priorities and develop a realistic master budget for food processing operation, communicate the final proposed budget with all managers</li> <li>• Submit the proposed master budget with clear proposals to the management for approval, assist them to evaluate the budget, negotiate with clarity and strong reasoning and get the budget approved</li> <li>• Evaluate, analyze and allocate budget to departments of food processing operation, allocate budget to each department managers with expectations and targets, provide required ongoing support and resources</li> <li>• Establish systems to monitor and evaluate performance against delegated budgets and the master budget and put contingency plans in place</li> <li>• Identify reason for significant variances between budget and actual expenditure, discuss with managers, provide solutions and ensure immediate corrective action is taken</li> <li>• In case of unforeseen situation/emergency/shortage,</li> </ul>	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<p>identify any additional financial needs, prepare provisional budget, negotiate and get it approved by the management, delegate provisional budget to respective managers, monitor and control expenditure</p> <ul style="list-style-type: none"> <li>• Encourage managers to identify ways of reducing expenditure, analyze and pursue potential ideas, implement those in all areas of function</li> <li>• Review the financial performance of managers regularly, and identify improvement opportunities and ensure it is implemented, provide information to the management on the financial performance of the operation management</li> <li>• Determine human resource requirement including contingencies to achieve organisation goal, organize interview, hiring and training of new employees through human resources manager</li> <li>• Ensure that all employees receive appropriate training on job duties, corporate policies and applicable regulations</li> <li>• Oversee and direct the activities of subordinate managers, provide coaching and mentoring, and conduct evaluations of all</li> <li>• Discuss with managers of operation function and identify resource requirement for their area, analyze, estimate and approve resources, monitor effective use of those resources</li> <li>• Ensure compliance of all employees with organization policy, procedures and applicable regulations</li> <li>• Conduct meetings to address grievances, to resolve or effect settlements within the scope of authority, and refer unresolved grievances for management-union negotiations</li> <li>• Take personnel actions, such as promotions, transfers, discharges or disciplinary measures, within the scope of authority</li> <li>• Update self with knowledge of quality management system, legal and regulatory requirements, environmental issues related to the</li> </ul>	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<p>organisation, process and products produced</p> <ul style="list-style-type: none"> <li>• Ensure system, plan and resources are in place to assure food products produced in the organisation meet the organisation standards, national and international regulations</li> <li>• Implement procedure, standards and specifications to meet quality goals of the organisation, co-ordinate departments and provide support to implement food safety system like HACCP in the organisation</li> <li>• Evaluate records of quality of product and process to assess the effectiveness of quality system followed in the organisation, review and revise the quality system through quality assurance manager and implement changes</li> <li>• Organize training for employees to update on latest developments/systems/ tools and techniques in quality management system and evaluate their competency to fulfill organisation goals</li> <li>• Encourage employees of all functions to take personal responsibility for achieving quality standards of product and process and address or report/address any non-conformance</li> <li>• Monitor process and product quality against target and plan, identify and assess risks of shortfalls in the quality of processes and products/services and take immediate corrective action to address risks</li> <li>• Direct and coordinate implementation of quality system such as ISO, HACCP, etc. in the organisation through quality manager</li> <li>• Ensure managers responsible for organizational processes understand the requirements of quality system, establish their roles in implementation of quality system in their functional areas, enhance their confidence and commitment to quality by providing continuous support</li> <li>• Encourage and support department heads and employees for quality</li> </ul>	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<p>audit process to obtain accreditation, certifications to a standard or a mark of quality, monitor quality audit process, review results and take immediate corrective action through concerned managers</p> <ul style="list-style-type: none"> <li>Identify the environmental impact related to the resources, process and products produced in the organisation such as air/water/noise pollution, effluent treatment, waste disposal etc, identify risks to the environment, consult with experts and identify opportunities to improve environmental performance</li> <li>Set and implement policies and procedures through managers, monitor to ensure its efficiency and effectiveness and make changes as required to meet the regulatory requirements</li> </ul>	
8	<p><b>Manage new projects and ensure compliance to regulatory requirements</b></p> <p><b>Theory Duration</b> (hh:mm) 07:00</p> <p><b>Practical Duration</b> (hh:mm) 09:00</p> <p><b>Corresponding NOS Code</b> FIC/N9019</p>	<ul style="list-style-type: none"> <li>Implement new project/business plans of the organisation for introducing new products or for improving processes, procedures and performance</li> <li>Map or perform comparative study of the project with the current project/product to understand the ways proposed project fits with the overall vision, objectives and plans of the organization</li> <li>Read the key objectives and scope of the proposed project, prepare resource requirement for implementation of new project, negotiate with clarity and strong reasoning and get approval from superiors/management</li> <li>Consult with experts and managers and prepare realistic and thorough plan to implement the project successfully, prepare project report considering all possibilities</li> <li>Submit the project report to the superiors/management, discuss plan, consider suggestions and recommendations and make necessary changes where necessary, take approval of final plan</li> <li>brief project team managers on the project plan and their roles and responsibilities, start implementation of project and provide ongoing</li> </ul>	<p>Laptop, white board, marker, chart papers, projector, trainer's guide and student handbook, logbooks, internal audit register, food safety manual, quality policy etc.</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<p>support, encouragement and information for successful completion</p> <ul style="list-style-type: none"> <li>• Monitor, control and review project plan during each stage of implementation</li> <li>• Provide sufficient resources to deal with contingencies and to manage any potential risks</li> <li>• Inform the management/superiors of the developments in the project on regular basis, discuss progress and problems, take approval for any changes in project plan</li> <li>• Complete project within agreed level of resources, meeting all legal and regulatory requirements, share the success with the project team members, recognize and reward their contribution</li> <li>• Update self with understanding of national and international food safety regulations and standards related to the food processing units, process and products produced in the organisation</li> <li>• Ensure effective policies and procedures are in place in the organization to meet to legal and regulatory requirements</li> <li>• Ensure regulatory standards set by the organisation for products are stringent in context of the national and international legal requirements</li> <li>• Ensure managers of all functional area have a clear understanding of the policies and procedures on food regulatory standards</li> <li>• Organize training for all employees on policies and procedures on food regulatory standards and the importance of following regulations</li> <li>• Monitor and ensure relevant legal and regulatory requirements pertaining to food processing units and products produced in the organisation are followed and met</li> <li>• Identify reasons for non-compliance, review and revise the policies and procedures in consultation with quality and regulatory affairs manager to correct and overcome failures, provide support to all managers to implement corrective actions for the organisation and</li> </ul>	



Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<p>products to comply with regulatory standards</p> <ul style="list-style-type: none"> <li>Update self with understanding of health and safety requirements, and food safety, hygiene and sanitation requirements for the organisation and products produced</li> <li>Ensure that the organisation has written policy and procedures on health and safety, food safety, hygiene and sanitation, and those are clearly communicated to all employees of the organisation, and are put into practice and followed</li> <li>Implement a system for identifying hazards and assessing risk in food processing and products and set procedures to control and prevent them</li> <li>Implement system for GMP, HACCP, FIFO/FEFO, product recall, etc., organize training to the employees on health and safety, food safety, hygiene and sanitation for effective implementation of the systems, allocate required resources for implementation, and ensure those are followed by all employees</li> <li>Ensure systems are in place for effective monitoring, measuring and reporting on the performance of health and safety system</li> <li>Evaluate the existing systems and procedures, consult with managers and experts and identify methods to reduce risks/improve control measure</li> <li>Ensure health and safety policies are practiced across the organisation, effectively monitored, reviewed and revised at regular intervals to meet the changes in national and international regulations</li> </ul>	
9	<p><b>Professional and Core Skills</b></p> <p><b>Theory Duration</b> (hh:mm) 03:00</p> <p><b>Practical Duration</b> (hh:mm) 05:00</p>	<ul style="list-style-type: none"> <li>Undertake a self-assessment test</li> <li>Identify personal strengths and weaknesses</li> <li>Plan and schedule the work order and manage time effectively to complete the tasks assigned</li> <li>Prevent potential problems from occurring</li> </ul>	Laptop, white/black board, marker, chart papers, projector ,Trainer's guide, Student manual



Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<b>Corresponding NOS Code</b>	<ul style="list-style-type: none"> <li>Resolve issues and problems using acquired knowledge and realize the importance of decision making</li> <li>Identify potential problems and make sound and timely decision</li> <li>Improve your reading skills</li> <li>State the importance of listening</li> </ul>	
10	<b>IT Skills</b>  <b>Theory Duration</b> (hh:mm) 05:00  <b>Practical Duration</b> (hh:mm) 07:00  <b>Corresponding NOS Code</b>	<ul style="list-style-type: none"> <li>Identify parts of the computer</li> <li>Use the computer keyboard effectively to type</li> <li>Use computer applications effectively to record day-to-day activities</li> <li>Use the word processor effectively</li> <li>Use the spreadsheet application effectively</li> <li>Use the computer to document day-to-day activities</li> </ul>	Laptop, white/black board, marker, chart papers, projector, Trainer's guide, Student manual
11	<b>Field Visits</b>  <b>Theory Duration</b> (hh:mm) 04:00  <b>Practical Duration</b> (hh:mm) 30:00  <b>Corresponding NOS Code</b>	<ul style="list-style-type: none"> <li>Observe the factory location, layout and safety aspects of food processing</li> <li>Observe the storage facilities for raw materials and finished products</li> <li>Observe the various machineries used in process</li> <li>Observe the various machineries used in process</li> <li>Observe the cleaning methods and processes followed to maintain the process machineries and tools</li> <li>Observe the raw materials used and their storage procedures</li> <li>Observe the packaging and storage processes of raw material and finished product</li> <li>Observe the post-production cleaning and maintenance process followed in the industry</li> </ul>	All the tools and equipment listed above must be available at the site of field visit
12	<b>Revision</b>  <b>Theory Duration</b> (hh:mm) 02:00  <b>Practical Duration</b> (hh:mm) 02:00  <b>Corresponding NOS Code</b>	<ul style="list-style-type: none"> <li>Revised the knowledge gained so far</li> </ul>	All the tools and equipment listed above must be available at the time of revision
13	<b>Evaluation</b>	<ul style="list-style-type: none"> <li>Assess the knowledge and skills acquired by the participants</li> </ul>	All the tools and equipment listed above

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<b>Theory Duration</b> (hh:mm) 08:00  <b>Practical Duration</b> (hh:mm) 20:00  <b>Corresponding NOS Code</b>		must be available for evaluation
14	<b>On-the-job Training</b>  <b>Theory Duration</b> (hh:mm) 30:00  <b>Practical Duration</b> (hh:mm) 65:00  <b>Corresponding NOS Code</b>	<ul style="list-style-type: none"> <li>Apply the skills and knowledge acquired in the training program in the field</li> </ul>	All the tools and equipment listed above must be available on the site at the time of OJT
	<b>Total Duration</b> <b>240:00</b>  <b>Theory Duration</b> <b>88:00</b>  <b>Practical Duration</b> <b>152:00</b>	<b>Unique Equipment Required:</b> Laptop, white board, marker, chart papers, projector, trainer's guide and student handbook, protective gloves, head caps, aprons, safety goggles, safety boots, mouth masks, sanitizer, safety manual	

Grand Total Course Duration: **240Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by SSC: Food Industry Capacity and Skill Initiative)

## Trainer Prerequisites for Job role: “Plant Manager” mapped to Qualification Pack: “FIC/Q9004, v1.0”

Sr. No.	Area	Details
1	<b>Description</b>	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “FIC/Q9004”, Version 1.0
2	<b>Personal Attributes</b>	An aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training, and pre/post work to ensure competent, employable candidates at the end of the training. Strong communication skills, ability to work as part of a team; a passion for quality and for developing others; well-organized and focused, eager to learn and keep oneself updated with the latest in the mentioned fields.
3	<b>Minimum Educational Qualifications</b>	<ul style="list-style-type: none"> <li>M.Sc/M.Tech/ME in Food Technology or Food Engineering with 7-8 years of hands on experience in a food industry</li> <li>B.Sc (home Sc) /B.Tech/BE in Food Technology or Food Engineering with 9-10 years of hands on experience in a food industry</li> </ul>
4a	<b>Domain Certification</b>	Certified for Job Role: “Plant Manager” mapped to QP: “FIC/Q9004, v1.0”. Minimum accepted score is 80%
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “SSC/Q1402”. Minimum accepted SCORE IS 80 % as per FICSI guidelines.
5	<b>Experience</b>	<ul style="list-style-type: none"> <li>M.Sc/M.Tech/ME in Food Technology or Food Engineering with 7-8 years of hands on experience in a food industry</li> <li>B.Sc (home Sc) /B.Tech/BE in Food Technology or Food Engineering with 9-10 years of hands on experience in a food industry</li> </ul>

## Annexure: Assessment Criteria

<b>Assessment Criteria</b>	
<b>Job Role</b>	<b>Plant Manager</b>
<b>Qualification Pack</b>	<b>FIC/Q9004, v1.0</b>
<b>Sector Skill Council</b>	<b>Food Processing</b>

Sr. No.	Guidelines for Assessment
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each 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 PC.
2	The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below)
4	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5	To pass the Qualification Pack, every trainee should score a minimum of 70% (overall) in every QP
6	The marks are allocated PC wise; however, every NOS will carry a weight age in the total marks allocated to the specific QP

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
<b>1. FIC/N9017: Lead Operations of a food processing unit</b>	PC1. Develop operational plans for the operation of food processing unit that is consistent with the objectives and goals of organisation, and to produce quantity and quality products	<b>100</b>	3	1	2
	PC2. Develop operational plan that is flexible and complements supply chain, inventory, human resource, production, maintenance, quality and logistics management of production unit		2.5	1	1.5
	PC3. Develop operational plan to improve output in all areas of functions with the objective to reduce overall cost, and to produce quantity and quality products		2.5	0.5	2
	PC4. Develop operational plan considering national and international regulatory requirements, health and safety, food safety and hygiene requirements on process and product(s), and to maintain safe and environmental compliant workplace		2.5	1	1.5

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC5. Develop objectives and set demanding but achievable targets for operation function managers, and assign clear responsibilities with expected targets/performance		3	1	2
	PC6. Provide direction and professional expertise to all function managers to achieve organisation goal		2.5	1	1.5
	PC7. Monitor and control the operational plan to achieve its overall objectives		2.5	0.5	2
	PC8. Evaluate the implemented operational plan periodically, analyze performance data, identify areas for improvement and recommend changes		2.5	1	1.5
	PC9. Monitor performance of managers and employees to ensure that departmental and individual objectives are achieved within scheduled timelines and budget		3	1	2
	PC10. Design new work processes, procedures, systems, structures and roles for any changes implemented in the organisation to achieve organizational goal and regulatory requirements		2.5	1	1.5
	PC11. Review and ensure implemented changes are effective and meets the requirements of the organisation		2.5	1	1.5
	PC12. Maintain professionalism, tact, diplomacy, sensitivity, diversity and equality, and lead food processing unit to achieve organisation objectives and goals		2.5	1	1.5
	PC13. Ensure that work arrangements, resources and business processes respond to different needs, abilities and values		2.5	0.5	2
	PC14. Develop and implement new business strategies for improving processes and procedures to improve performance		2.5	1	1.5
	PC15. Develop a leadership style and apply them appropriately for managers to follow the lead willingly to achieve organisation targets and goals		2.5	1	1.5
	PC16. Communicate clearly the organisation vision, values and goals to employees, make managers understand and commit their expertise to achieve organisation goals		2.5	0.5	2

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC17. Lead managers of all operation functions, link operational plans and drive managers towards achieving organisation vision, objectives and goals		3	1	2
	PC18. Lead managers through difficulties, challenges and conflicts		2.5	1	1.5
	PC19. Conduct meetings with managers regularly and effectively, encourage them to share their views, provide guidance and support to overcome process issues and lead to achieve organisation goal		2.5	0.5	2
	PC20. Encourage managers to take lead in their own areas of expertise, take own decisions in their area of function, and provide recognitions when they are successful		2.5	1	1.5
	PC21. Lead the managers and organisation successfully through difficulties and challenges		3	1	2
	PC22. Design processes with achievable targets and realistic timeline, proper resource allocation, with defined process responsibilities to manage food processing operation based on organizational goals		2.5	1	1.5
	PC23. Develop processes that are effective and sustainable, implement and ensure it is followed, review its effectiveness and make necessary changes if required		2.5	1	1.5
	PC24. Develop process measures that are affordable, and provide enough information and required training for managers and employees to manage the process		2.5	0.5	2
	PC25. Review and understand resource requirements for process and allocate necessary resources to all functional areas		2.5	1	1.5
	PC26. Develop systems to link all function processes, and encourage function heads and employees to interact across the organisation to form a complete system		2.5	0.5	2
	PC27. Establish effective methods to review the quality of work and product, and improve the process		2.5	0.5	2

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC28. Focus attention on issues that are critical to achieve results, provide solutions and guidance to overcome the issues that affect the process		2.5	1	1.5
	PC29. Identify issues and trends and recognize their impact upon current and future work, work out solutions and implementation plan to overcome and utilize latest trends to achieve long term goals of the organisation		3	1	2
	PC30. Develop policies and procedures for any change in organisation goal, organisation structure		2.5	1	1.5
	PC31. Set responsibilities for managers, set and prioritize objectives for change, clearly communicate change and make the managers understand their responsibilities and commitment		2.5	1	1.5
	PC32. Implement change, identify and deal with obstacles to change, and support managers and employees through the change process		2.5	1	1.5
	PC33. Brief managers on their responsibilities and make them understand their role, objectives for their area and the overall organisation, and expected performance		2	1	1
	PC34. Monitor progress and performance quality of the managers on regular basis against the level of expected performance and provide prompt and constructive feedback		3	1	2
	PC35. Support managers in identifying and dealing with problems and unforeseen events		2.5	1	1.5
	PC36. Identify gaps and performance issues, discuss the causes and recommend solutions to improve performance of managers and their team		3	1	2
	PC37. Monitor performance, analyze employee strength and weakness, and make changes in their tasks/responsibilities		2.5	1	1.5
	PC38. Review performance and update work plans in their area, monitor and conduct review meetings on regular basis, recognize successful completion of work or work activities by function manager(s) and their teams		2.5	1	1.5



Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC39. Motivate managers to complete expected target and any additional work allocated and provide additional support and resources to complete work		2	1	1
			<b>100</b>	<b>35</b>	<b>65</b>
<b>2. FIC/N9018: Ensure proper production and proper management</b>	PC1. Update self with an understanding of the goals of the organisation and forecast/requirements of the sales & marketing manager, with the knowledge on production method and process, plant capacity, resource availability, plan products and quantity to be produced	<b>100</b>	2	1	1
	PC2. Monitor and regulate supply chain management which include sourcing and procurement, conversion of raw materials to finished products, all logistics activities, coordination and collaboration with suppliers, intermediaries, third-party service providers, and customers, to integrates supply and demand management within and across companies		3	0.5	2.5
	PC3. Monitor and regulate inventory process to meet the production requirement of the organisation, review current procurement procedures, analyze benefits and risks that may impact the procurement of supplies, implement plans and methods to improve, provide solutions to resolve any immediate problems		3	1	2
	PC4. Evaluate current storage methods, identifying ways of improving the storage of supplies to provide better fit with supply chain strategy		3	1	2
	PC5. During production process, coordinate production activities with procurement, maintenance, and quality control function to obtain optimum production and efficient utilization of human resources, machines and equipment		1.5	0.5	1
	PC6. Make adjustments/revise/reschedule production schedules and priorities in case of breakdown down of equipment/issues with physical or human resource/ urgent		1.5	0.5	1



Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	orders/unforeseen issues or any operational problems				
	PC7. Direct production activities and establish production priorities to produce quantity and quality products within the operation budget		3	1	2
	PC8. Review and analyze human resource, production, quality control, maintenance, and operational reports to identify reason for non-conformance/ noncompliance to organisation and regulatory standards for product and process, develop and implement operating methods and procedures to eliminate problems and improve product and process quality		3	1	2
	PC9. Monitor storage and distribution of products to and from the plant/processing unit warehouse, ensure storage and distribution norms and procedures like palletizing, stacking height, labeling, FEFO etc are followed		3	0.5	2.5
	PC10. Establish systems to collect and assess information on performance of all functions, analyze data and evaluate performance of departments and organisation, through knowledge and understanding identify reasons for problems and low performance		1.5	1	0.5
	PC11. Establish and implement methods and procedures for improvement, ensure implemented methods deliver expected result, and identify opportunities to improve organization performance		1.5	1	0.5
	PC12. Read financial responsibilities, compile available financial information, evaluate the cost, benefits and risks of the current budget, and estimate financial requirements for operation of food processing unit		3	1.5	1.5
	PC13. Consult with department managers the objectives and associated plans, discuss and identify priorities and develop a realistic master budget for food processing operation, communicate the final proposed budget with all managers		3	1	2

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC14. Submit the proposed master budget with clear proposals to the management for approval, assist them to evaluate the budget, negotiate with clarity and strong reasoning and get the budget approved		2.5	1	1.5
	PC15. Evaluate, analyze and allocate budget to departments of food processing operation, allocate budget to each department managers with expectations and targets, provide required ongoing support and resources		3	1	2
	PC16. Establish systems to monitor and evaluate performance against delegated budgets and the master budget and put contingency plans in place		2.5	1	1.5
	PC17. Identify reason for significant variances between budget and actual expenditure, discuss with managers, provide solutions and ensure immediate corrective action is taken		2.5	1	1.5
	PC18. In case of unforeseen situation/emergency/shortage, identify any additional financial needs, prepare provisional budget, negotiate and get it approved by the management, delegate provisional budget to respective managers, monitor and control expenditure		3	1	2
	PC19. Encourage managers to identify ways of reducing expenditure, analyze and pursue potential ideas, implement those in all areas of function		2.5	1	1.5
	PC20. Review the financial performance of managers regularly, and identify improvement opportunities and ensure it is implemented, provide information to the management on the financial performance of the operation management		2.5	1	1.5
	PC21. Determine human resource requirement including contingencies to achieve organisation goal, organize interview, hiring and training of new employees through human resources manager		3	1	2
	PC22. Ensure that all employees receives appropriate training on job duties,		2.5	1	1.5

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	corporate policies and applicable regulations				
	PC23 Oversee and direct the activities of subordinate managers, provide coaching and mentoring, and conduct evaluations of all		2.5	1	1.5
	PC24 Discuss with managers of operation function and identify resource requirement for their area, analyze, estimate and approve resources, monitor effective use of those resources		3	1	2
	PC25 Ensure compliance of all employees with organization policy, procedures and applicable regulations		2.5	1	1.5
	PC26 Conduct meetings to address grievances, to resolve or effect settlements within the scope of authority, and refer unresolved grievances for management-union negotiations		2.5	0.5	2
	PC27 Take personnel actions, such as promotions, transfers, discharges or disciplinary measures, within the scope of authority		3	1	2
	PC28 Update self with knowledge of quality management system, legal and regulatory requirements, environmental issues related to the organisation, process and products produced		2.5	0.5	2
	PC29 Ensure system, plan and resources are in place to assure food products produced in the organisation meet the organisation standards, national and international regulations		3	1	2
	PC30 Implement procedure, standards and specifications to meet quality goals of the organisation, coordinate departments and provide support to implement food safety system like HACCP in the organisation		3	1	2
	PC31 Evaluate records on quality of product and process to assess the effectiveness of quality system followed in the organisation, review and revise the quality system through quality assurance manager and implement changes		2.5	1	1.5
	PC32 Organize training for employees to update on latest		2.5	0.5	2

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	developments/systems/ tools and techniques in quality management system and evaluate their competency to fulfill organisation goals				
	PC33 Encourage employees of all functions to take personal responsibility for achieving quality standards of product and process and to address or report/address any non-conformance		2.5	1	1.5
	PC34 Monitor process and product quality against target and plan, identify and assess risks of shortfalls in the quality of processes and products/services and take immediate corrective action to address risks		3	1	2
	PC35 Direct and coordinate implementation of quality system like ISO, HACCP etc in the organisation through quality manager		3	1	2
	PC36 Ensure managers responsible for organizational processes understand the requirements of quality system, establish their roles in implementation of quality system in their functional areas, enhance their confidence and commitment to quality by providing continuous support		3	1	2
	PC37 Encourage and support department heads and employees for quality audit process to obtaining accreditation, certifications to a standard or a mark of quality, monitor quality audit process, review results and take immediate corrective action through concerned managers		2.5	1	1.5
	PC38 Identify the environmental impact related to the resources, process and products produced in the organisation like air/water/noise pollution, effluent treatment, waste disposal etc, identify risks to the environment, consult with experts and identify opportunities to improve environmental performance		1.5	0.5	1
	PC39 Set and implement policies and procedures through managers, monitor to ensure its efficiency and effectiveness and make changes as required to meet the regulatory requirements		1.5	0.5	1
			<b>100</b>	<b>35</b>	<b>65</b>

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
<b>3. FIC/N9019: Manage new projects and implement health and safety system in food processing unit</b>	PC1. Implement new project/business plans of the organisation for introducing new products or for improving processes, procedures and performance	<b>100</b>	3	1	2
	PC2. Map or perform comparative study of the project with the current project/product to understand the ways proposed project fits with the overall vision, objectives and plans of the organisation		4	1	3
	PC3. Read the key objectives and scope of the proposed project, prepare resource requirement for implementation of new project, negotiate with clarity and strong reasoning and get approved from superiors/management		5	2	3
	PC4. Consult with experts and managers and prepare realistic and thorough plan to implement the project successfully, prepare project report considering all possibilities		4	1.5	2.5
	PC5. Submit the project report to the superiors/management, discuss plan, consider suggestions and recommendations and make necessary changes where necessary, take approval of final plan		4	1.5	2.5
	PC6. Brief project team managers on the project plan and their roles and responsibilities, start implementation of project and provide ongoing support, encouragement and information for successful completion		5	2	3
	PC7. Monitor, control and review project plan during each stage of implementation		4	1.5	2.5
	PC8. Provide sufficient resources to deal with contingencies and to manage any potential risks		4	1.5	2.5
	PC9. Inform the management/superiors of the developments in the project on regular basis, discuss progress and problems, take approval for any changes in project plan		4	1.5	2.5
	PC10. Complete project within agreed level of resources meeting all legal and regulatory requirements, share the success with the project team		4	1.5	2.5

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	members, recognize and reward their contribution				
	PC11. Read national and international food safety regulations and standards related to the food processing units, process and products produced in the organisation		3	1.5	2.5
	PC12. Ensure effective policies and procedures are in place in the organization to meet to legal and regulatory requirements		5	2	3
	PC13. Ensure regulatory standards set by the organisation for products are stringent than the national and international legal requirements		4	1.5	2.5
	PC14. Ensure managers of all functional area have a clear understanding of the policies and procedures on food regulatory standards		4	1.5	2.5
	PC15. Organize training for all employees on policies and procedures on food regulatory standards and the importance of following regulations		4	1	3
	PC16. Monitor and ensure relevant legal and regulatory requirements pertaining to food processing units and products produced in the organisation are followed and met		5	2	3
	PC17. Identify reasons for noncompliance, review and revise the policies and procedures in consultation with quality and regulatory affairs manager to correct and overcome failures, provide support to all managers to implement corrective actions for the organisation and products to comply with regulatory standards		5	2	3
	PC18. Read the health and safety requirements, and food safety, hygiene and sanitation requirements for the organization and products produced		3	1	2
	PC19. Ensure that the organisation has written policy and procedures on health and safety, food safety, hygiene and sanitation, and those are clearly communicated to all employees of the organisation, and are put into practice and being followed		4	1	3

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC20. Implement system for identifying hazards and assessing risk in food processing and products, set procedures to control and prevent them		4	1	3
	PC21. implement system for GMP, HACCP, FIFO/FEFO, product recall etc, organize training to the employees on health and safety, food safety, hygiene and sanitation for effective implementation of the systems, allocate required resources for implementation, and ensure those are followed by all employees		5	2	3
	PC22. Ensure systems are in place for effective monitoring, measuring and reporting on the performance of health and safety system		4	1	3
	PC23. Evaluate the existing systems and procedures, consult with managers and experts and identify method to reduce risks/improve control measure		4	1	3
	PC24. Ensure health and safety policies are practiced across the organisation, effectively monitored, reviewed and revised at regular intervals to meet the changes in national and international regulations		4	1	3
	<b>Total</b>		<b>100</b>	<b>35</b>	<b>65</b>
	<b>Grand Total</b>	<b>300</b>	<b>300</b>	<b>200</b>	<b>100</b>
	<b>Percentage Weightage</b>		<b>100</b>	<b>60%</b>	<b>40%</b>
	<b>Minimum Pass% to qualify (aggregate):</b>			<b>70%</b>	

