

Model Curriculum

Fruits and Vegetables Canning Technician

SECTOR: FOOD PROCESSING
SUB-SECTOR: FRUITS AND VEGETABLES
OCCUPATION: PROCESSING
REF ID: FIC/Q0107, V1.0
NSQF LEVEL: 4



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

FOOD INDUSTRY CAPACITY AND SKILL INITIATIVE (FICSI)

for the

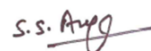
MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: 'Fruits and Vegetables Canning Technician QP No. 'FIC/Q0107, NSQF Level 4'

Date of Issuance: 04 September, 2018

Valid up to: 30 June, 2019

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



Authorized Signatory
(Food Industry Capacity and Skill Initiative)

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Fruits and Vegetables Canning Technician

CURRICULUM / SYLLABUS

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

| | | | |
|---|---|----------------------------|------------|
| Program Name | Fruits and Vegetables Canning Technician | | |
| Qualification Pack Name & Reference ID. ID | FIC/Q0107, v1.0 | | |
| Version No. | 1.0 | Version Update Date | 04/09/2018 |
| Pre-requisites to Training | Preferably Class 8 and 2-3 years' experience in fruit and vegetable processing unit | | |
| Training Outcomes | After completing this programme, participants will be able to: <ul style="list-style-type: none"> • prepare and maintain work area and process machineries for canning of fruits and vegetables, • prepare raw material for canning fruits and vegetables, • can fruits and vegetables, • document and maintain records related to canning of fruits and vegetables, • follow and maintain food safety and hygiene in the work environment. | | |

This course encompasses 5 out of 5 National Occupational Standards (NOS) of “Fruits and Vegetables Canning Technician” Qualification Pack issued by “Food Industry Capacity and Skill Initiative”.

| Sr. No. | Module | Key Learning Outcomes | Equipment Required |
|---------|---|--|---|
| 1. | Introduction to the Training Program and Overview of Food Processing Industry Theory Duration (hh:mm) 02:00 Practical Duration (hh:mm) 00:00 Corresponding NOS Code Bridge Module | <ul style="list-style-type: none"> Define food processing List the various subsectors of food processing industry Define fruits and vegetables Processing State the need for fruits and vegetables canning State the common methods of fruits and vegetables processing State the roles and responsibilities of fruits and vegetables canning technician Discuss the nature and availability of job opportunities | |
| 2. | Organizational Standards and Norms Theory Duration (hh:mm) 06:00 Practical Duration (hh:mm) 07:00 Corresponding NOS Code FIC/N0126 | <ul style="list-style-type: none"> State how to conduct yourself at the workplace State the personal hygiene and sanitation guidelines State the food safety and hygiene standards to be followed in an organization | Protective Gloves, Head Caps, Aprons, Safety Goggles, Safety Boots, Mouth Masks, Sanitizer, Safety Manual |
| 3. | Prepare and Maintain Work Area and Process Machineries for Canning of Fruits and Vegetables Theory Duration (hh:mm) 08:00 Practical Duration (hh:mm) 20:00 | <ul style="list-style-type: none"> List the materials and equipment used in cleaning and maintenance of the work area and process machineries State the cleaning processes used to clean the work area Demonstrate the appropriate method for cleaning and maintenance of work area to ensure the work area is safe and hygienic for food processing Identify different equipment used in canning of fruits and vegetables Demonstrate the cleaning of the process machineries required for production using recommended sanitizers | Washer, Peeler, Corer, Slicer, Steam Jacketed Kettles, Retort, Cutting Knives, Weighing Machine, Tray, Cans, Brinometer, Salinometer, Refractometer, Thermometer, Sealer, Blancher, Different Types of Canned Packaging Material, Sterilizer, Protective Gloves, Head Caps, Aprons, Safety Goggles, Safety Boots, |

| Sr. No. | Module | Key Learning Outcomes | Equipment Required |
|---------|---|--|---|
| | Corresponding NOS Code FIC/N0124 | <ul style="list-style-type: none"> Perform a check on the working of different tools and machineries used for canning of fruits and vegetables | Mouth Masks, Sanitizer, Safety Manual |
| 4. | Food Microbiology Theory Duration (hh:mm) 06:00 Practical Duration (hh:mm) 08:00 Corresponding NOS Code FIC/N0125 | <ul style="list-style-type: none"> State the types of food microbes State the causes of food spoilage State the process of food spoilage and the criteria to check food spoilage State the need for food preservation State different types of food preservation processes Explain the method of assessing the quality of produce based on physical parameters | Samples of Fresh and Spoiled Food |
| 5. | Preparation for Canning Fruits and Vegetables Theory Duration (hh:mm) 11:00 Practical Duration (hh:mm) 30:00 Corresponding NOS Code FIC/N0125 | <ul style="list-style-type: none"> Use basic mathematics for various calculations in day-to-day processes Plan the production schedule as per organizational standards and instructions Organize the raw materials, packaging materials, manpower, equipment and machineries for the scheduled production Identify the raw materials required for production as per production schedule and formation State the methods for storing raw materials for later use Plan the production sequence to maximize capacity, utilization of resources, manpower and machinery Calculate batch size and prioritize urgent orders based on the production schedule and machine capacity Inspect the conformance of raw material quality to company standards Organize quality raw material as per production process and company standards Check the raw material quality and grade Prepare the raw material for production | Washer, Peeler, Corer, Slicer, Steam Jacketed Kettles, Retort, Cutting Knives, Weighing Machine, Tray, Cans, Brinometer, Salinometer, Refractometer, Thermometer, Sealer, Blancher, Different Types of Canned Packaging Material, Sterilizer, Protective Gloves, Head Caps, Aprons, Safety Goggles, Safety Boots, Mouth Masks, Sanitizer, Safety Manual |
| 6. | Can Fruits and Vegetables | <ul style="list-style-type: none"> Inspect the quality of the raw material Demonstrate the washing of fruits and vegetables | Washer, Peeler, Corer, Slicer, Steam Jacketed Kettles, Retort, Cutting Knives, Weighing |

| Sr. No. | Module | Key Learning Outcomes | Equipment Required |
|---------|---|---|---|
| | Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 45:00 Corresponding NOS Code FIC/N0126 | <ul style="list-style-type: none"> • Demonstrate sorting, peeling, slicing and blanching of fruits and vegetables • Conduct the adjustment of various control parameter while operating the machineries • Demonstrate the preparation of sugar/brine or any other preserving solution for canning • Demonstrate Form, Fill and Seal of the cans • Demonstrate the sterilization and the final cooling of the canned fruits and vegetables • Conduct the adjustment of various control parameter while sterilizing and cooling | Machine, Tray, Cans, Brinometer, Salinometer, Refractometer, Thermometer, Sealer, Blancher, Different Types of Canned Packaging Material, Sterilizer, Protective Gloves, Head Caps, Aprons, Safety Goggles, Safety Boots, Mouth Masks, Sanitizer, Safety Manual |
| 7. | Complete documentation and record keeping Theory Duration (hh:mm) 06:00 Practical Duration (hh:mm) 04:00 Corresponding NOS Code FIC/N0127 | <ul style="list-style-type: none"> • State the need for documenting and maintaining records of raw materials, processes and finished products • State the method of documenting and recording the details of raw material to final finished product | Food Safety Manual, Log Books. |
| 8. | Food Safety, Hygiene and Sanitation Theory Duration (hh:mm) 12:00 Practical Duration (hh:mm) 30:00 Corresponding NOS Code FIC/N9001 | <ul style="list-style-type: none"> • State the importance of safety, hygiene and sanitation in the baking industry • Apply the industry standards to maintain a safe and hygiene workplace • Apply HACCP principles to eliminate food safety hazards in the process and products • Apply safety practices in the work area | Protective Gloves, Head Caps, Aprons, Safety Goggles, Safety Boots, Mouth Covers, Sanitizer, Safety Manual, Log Books etc. |
| 9. | Professional and Core Skills | <ul style="list-style-type: none"> • Plan a general aptitude self-assessment test • State the importance of listening • Identify personal strengths and weaknesses | Laptop, white/black board, marker, chart papers, projector, Trainer's guide, Student manual |

| Sr. No. | Module | Key Learning Outcomes | Equipment Required |
|---------|--|---|--------------------|
| | Theory Duration (hh:mm) 04:00 Practical Duration (hh:mm) 06:00 Corresponding NOS Code Bridge Module | <ul style="list-style-type: none"> Plan and schedule the work order and manage time effectively to complete the tasks assigned Analyze issues and problems using acquired knowledge and realize the importance of decision making Plan to prevent potential problems from occurring | |
| 10. | IT Orientation Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code FIC/N0127 | <ul style="list-style-type: none"> Identify parts of the computer Use the computer keyboard effectively to type Use ERP effectively to record day-to-day activities Use the word processor effectively Use the spreadsheet application effectively Use the computer to document day-to-day activities | Computer/Laptop |
| | Total Duration 240:00 Theory Duration 80:00 Practical Duration 160:00 | Unique Equipment Required: Washer, Peeler, Corer, Slicer, Steam Jacketed Kettles, Retort, Cutting Knives, Weighing Machine, Tray, Cans, Brinometer, Salinometer, Refractometer, Thermometer, Sealer, Blancher, Different Types of Canned Packaging Material, Sterilizer, Protective Gloves, Head Caps, Aprons, Safety Goggles, Safety Boots, Mouth Masks, Sanitizer, Safety Manual, Log Book, Computer/Laptop, Samples of Fresh and Spoiled Food | |

Grand Total Course Duration: **240Hours, 0 Minutes**
 Recommend OJT Hours: **56Hours, 0 Minutes**

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

Trainer Prerequisites for Job role: “Fruits and Vegetables Canning Technician” mapped to Qualification Pack: “FIC/Q0107, v1.0”

| Sr. No. | Area | Details |
|---------|---|---|
| 1 | Description | To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “FIC/Q0107”, Version 1.0 |
| 2 | Personal Attributes | 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 | Minimum Educational Qualifications | <ul style="list-style-type: none"> B.Sc./B. Tech./B.E. in Food Technology or Food Engineering with 2-3 years of hands on experience in a Fruits/Vegetables Canning Unit PG Diploma in Packaging with 1-2 years of hands on experience in a Fruits/Vegetables Processing Unit |
| 4a | Domain Certification | Certified for Job Role: “Fruits and Vegetables Canning Technician” mapped to QP: “FIC/Q0107, v1.0”. Minimum accepted score is 80% |
| 4b | Platform Certification | Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MEP/Q0102”. Minimum accepted score is 80 % as per FICSI guidelines. |
| 5 | Experience | <ul style="list-style-type: none"> B.Sc./B. Tech./B.E. in Food Technology or Food Engineering with 2-3 years of hands on experience in a Fruits/Vegetables Canning Unit PG Diploma in Packaging with 1-2 years of hands on experience in a Fruits/Vegetables Processing Unit |

Annexure: Assessment Criteria

| | |
|-----------------------------|---|
| Assessment Criteria | |
| Job Role | Fruits and Vegetables Canning Technician |
| Qualification Pack | FIC/Q0107, v1.0 |
| Sector Skill Council | Food Processing |

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. Assessment will be conducted for all compulsory NOS, as well as the selected elective NOS/set of NOS.
- OR
4. Assessment will be conducted for all compulsory NOS, as well as the selected optional NOS/set of NOS.
 5. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
 6. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
 7. To pass the Qualification Pack , every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.
 8. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

| Assessable Outcome | Assessment Criteria | Total Mark (500) | Out Of | Marks Allocation | |
|--|--|------------------|------------|------------------|------------------|
| | | | | Theory | Skills Practical |
| 1. FIC/Q0124: Prepare and Maintain Work Area and Process Machineries for Canning of Fruits & Vegetables | PC.1 Prepare clean and maintain the cleanliness of the work area using approved sanitizers and keep it free from dust, waste, flies and pests | 100 | 25 | 10 | 15 |
| | PC2. Ensure that the work area is safe and hygienic for food | | 10 | 3 | 7 |
| | PC3. Dispose waste materials as per defined SOPs and industry requirements | | 15 | 5 | 10 |
| | PC4. Check the working and performance of all machineries and tools used for the pickle making process such as washer, peeler, vegetable cutter/slicer, blender, packaging machines etc. | | 15 | 5 | 10 |
| | PC5. Clean the machineries and tools used with approved sanitizers following SOP | | 15 | 5 | 10 |
| | PC6. Place the necessary tools required for process | | 5 | 2 | 3 |
| | PC7. Attend the minor repairs/ faults of all machines, if required | | 15 | 5 | 10 |
| | Total | | 100 | 35 | 65 |
| 2. FIC/Q0125: Prepare for Canning Fruits & Vegetables | PC1. Read and understand the production order from supervisor | 100 | 10 | 4 | 6 |
| | PC2. Check the availability of raw materials, packaging materials, equipment availability and manpower | | 5 | 2 | 3 |
| | PC3. Support in planning production sequence | | 15 | 5 | 10 |
| | PC4. Calculate the batch size based on the production order and machine capacity | | 5 | 2 | 3 |
| | PC5. Calculate the raw material, filling liquid, packaging materials and manpower for completing the order | | 5 | 2 | 3 |
| | PC6. Calculate the raw materials, packaging materials and manpower requirement for completing the order. | | 5 | 2 | 3 |
| | PC7. Ensure the working and performance of each equipment required for the process | | 7 | 2 | 5 |
| | PC8. Calculate the process time for effective utilization of machineries | | 7 | 2 | 5 |
| | PC9. Plan batch size considering full capacity utilization of machineries | | 3 | 1 | 2 |
| | PC10. Plan to utilize machineries for multiple products without affecting the quality of the finished products, and to optimize production and save energy | | 3 | 1 | 2 |

| Assessable Outcome | Assessment Criteria | Total Mark (500) | Out Of | Marks Allocation | |
|--|---|------------------|------------|------------------|------------------|
| | | | | Theory | Skills Practical |
| | PC11.Allot responsibilities and help to assistants and workers | | 5 | 1.5 | 3.5 |
| | PC12.Refer the process chart for products produced | | 3 | 1 | 2 |
| | PC13.Weigh the raw materials required for the batch | | 5 | 1 | 4 |
| | PC14. Check the conformance of raw material quality to organization standards, through physical analysis and by referring the quality analysis report from the supplier/ internal lab analysis report | | 10 | 4 | 6 |
| | PC15.Ensure working and performance of required machines and tools. | | 10 | 4 | 6 |
| | PC16.Keep the tools assessable to repair in case of faults/ breakdown | | 2 | 0.5 | 1.5 |
| | Total | | 100 | 35 | 65 |
| 3. FIC/Q0126: Can Fruits and Vegetables | PC1. Receive vegetables from the supplier/vendor , check weight and check quality through physical parameters such as appearance, color, texture, maturity | 100 | 4 | 1.5 | 2.5 |
| | PC2. Open valves or start pump to fill water in the washing tank and control water level , dump fruits and vegetables in the washing tank for washing | | 2 | 0.5 | 1.5 |
| | PC3. Start the ladder conveyor to lift the vegetables from the washing tank and to transfer to the conveyor | | 2 | 0.5 | 1.5 |
| | PC4. Open valves of the high pressure spraying system for fresh water and adjust pressure to spray water on vegetables for rinsing | | 2 | 0.5 | 1.5 |
| | PC5. Start and adjust speed of sorting/inspecting line conveyor, inspect visually and remove damaged, blemished and rotten fruits | | 2 | 0.5 | 1.5 |
| | PC6. Start conveyor or elevator and control speed to transfer sorted fruits and vegetables into peeler or corer machine (depending on the type of fruits and vegetables), start peeler/corer machine and adjust the speed to remove the peel or core of fruits and vegetables | | 2 | 0.5 | 1.5 |
| | PC7. Dump measured quantity of lye chemical into tank of heated water to prepare lye solution for lye peeling , turn valves to admit steam to heat lye | | 2 | 0.5 | 1.5 |

| Assessable Outcome | Assessment Criteria | Total Mark (500) | Out Of | Marks Allocation | |
|--------------------|---|------------------|--------|------------------|------------------|
| | | | | Theory | Skills Practical |
| | solution in tank, observe dials and adjust controls to regulate pressure and temperature | | | | |
| | PC8. Start conveyor and adjust speed to carry fruit and vegetables through lye peeling machine or load by hand, set and adjust timer for immersion time following sop, observe fruit and vegetable emerging from machine to ensure removal of skin or membrane, open valve to drain the excess lye solution,(or) | | 2 | 0.5 | 1.5 |
| | PC9. Turn valves to introduce steam and adjust controls to maintain pressure for steam peeling of fruits and vegetables, open valves of water spraying system to wash the peeled/scalded fruits and vegetables | | 2 | 0.5 | 1.5 |
| | PC10. Start conveyor to transfer fruits and vegetable to chopper/cutter/slicer machine to slice to specified size and shape following sop | | 1 | 0.5 | 0.5 |
| | PC11. Turn valves, set controls, monitor gauges to fill water in the blanching machine, turn valves to allow steam and adjust gauges to regulate steam pressure, water temperature and blanching time for different types of fruits and vegetables following sop | | 2 | 0.5 | 1.5 |
| | PC12. Start feed conveyor and control speed to feed fruits and vegetables to and from the blanching machine, examine blanched fruits and vegetables visually and through feel/texture to determine adequacy of softening | | 2 | 0.5 | 1.5 |
| | PC13. Open valve to admit required amount of water into steam jacketed kettle/tank, observe water gauge or designated mark for quantity of water filled | | 2 | 0.5 | 1.5 |
| | PC14. Measure sugar/salt, water, juice etc following sop and transfer into the pre-mixing tank /container, pump or manually add into water in the kettle/tank to prepare sugar/brine/other preserving solution, turn on mixer/agitator and control speed to mix ingredients | | 3 | 1 | 2 |

| Assessable Outcome | Assessment Criteria | Total Mark (500) | Out Of | Marks Allocation | |
|--------------------|---|------------------|--------|------------------|------------------|
| | | | | Theory | Skills Practical |
| | PC15. Turn valves to admit steam into kettle/tank, and set required pressure, temperature and time to heat the solution following sop, observe pressure and temperature gauge, and regulate steam to maintain temperature | | 3 | 1 | 2 |
| | PC16. Check sugar/brine/other preserving solution using equipments like salinometer or refractometer to conform its specifications to standards, open valves or start pump to transfer sugar/brine/other preserving solution from mixing tank to storage or holding tanks for later use | | 2 | 1 | 1 |
| | PC17. Operate can reformer, flanger machines, seamer, can body beader and embossing machines manually to form cans | | 2 | 0.5 | 1.5 |
| | PC18. Start can washer/sterilizer, can filling, can seamer machines and conveyor mechanisms to verify its working and performance | | 1 | 0.5 | 0.5 |
| | PC19. Feed flattened containers onto conveyor or forming machines to form cans, press button to activate machine-lift that raises stacked cans and transfer them onto mechanical conveyor (in mechanical units), observe passing cans and remove defective/damaged cans from conveyor and discard following sop | | 1 | 0.5 | 0.5 |
| | PC20. Set controls like temperature, steam pressure, conveyor speed and start machine that automatically feed empty cans onto conveyors leading to washing, filling and seaming machines | | 4 | 1.5 | 2.5 |
| | PC21. Set fruit and vegetable filling machine for filling quantity, control speed of filling line conveyor that carries blanched fruits and vegetables, and start machine to fill measured quantity of fruits and vegetables into the can | | 4 | 1.5 | 2.5 |
| | PC22. Check the weight of the filled cans periodically to ensure its conformance to standards | | 1 | 0.5 | 0.5 |
| | PC23. Load fruit/vegetable filled cans onto liquid filling conveyor or start the | | 3 | 1 | 2 |

| Assessable Outcome | Assessment Criteria | Total Mark (500) | Out Of | Marks Allocation | |
|--------------------|--|------------------|--------|------------------|------------------|
| | | | | Theory | Skills Practical |
| | conveyor that carries containers under liquid dispensing nozzles for filling sugar/ brine/other preserving solution | | | | |
| | PC24. Turn valves of the liquid filling machine and adjust controls to fill measured quantity of sugar/ brine/other preserving solution, observe filling operation and adjust flow of solution to optimum volume | | 4 | 2 | 2 |
| | PC25. Start steaming line conveyor and control the speed to allow filled cans to pass through steaming chamber/tunnel (for products that cannot be preheated before filling) | | 3 | 1 | 2 |
| | PC26. Verify gauges and adjust controls to maintain pressure and temperature or monitor and control PLC of the steaming chamber/tunnel | | 3 | 1 | 2 |
| | PC27. Adjust knobs to set temperature, pressure and time to increase temperature of the contents in the can to expel gases (or create vacuum) from the can before sealing | | 3 | 1 | 2 |
| | PC28. Load lids in the can seaming machine, monitor can seaming operation to ensure the positioning of the lid on the can and crimping of lid to the can creating double seam | | 3 | 1 | 2 |
| | PC29. Observe cans leaving machines to detect defects, such as overfilled cans or misaligned lids), check the weight of the filled cans, sample sealed cans and transfer to lab for quality analysis to ensure conformance of canned product to quality standards | | 3 | 1 | 2 |
| | PC30. Load the canned product manually in metal baskets, start motor to lower the basket with cans into hot water tank, adjust burner or allow steam to pass through tank to heat water continuously to sterilize can to specified temperature and time, mechanically lift basket with sterilized cans from hot water tank and place in cold water tank, open valves to circulate cold water in tanks to cool cans, dry cans manually (or) | | 4 | 1 | 3 |
| | PC31. Load the canned product into the retort manually or mechanically | | 3 | 1 | 2 |

| Assessable Outcome | Assessment Criteria | Total Mark (500) | Out Of | Marks Allocation | |
|--------------------|--|------------------|--------|------------------|------------------|
| | | | | Theory | Skills Practical |
| | through push trucks or pressing buttons to start conveyor to load canned foods into retort, close retort door or lid and turn wheels or moves levers to seal chamber | | | | |
| | PC32. Set process parameters like pressure, temperature, sterilization time etc. in the retort following sop, turns valves to admit steam into retort, observe dials and gauges and adjust controls to maintain process parameters, after sterilization time turn valves to release steam and allow cool water into chamber to prevent overcooking | | 4 | 2 | 2 |
| | PC33. Open retort and move canned product to the cooling line conveyor, open valves of water spraying system and adjust pressure to spray cold water on cans passing through cooling line conveyor | | 3 | 1 | 2 |
| | PC34. Set drying temperature, air flow etc of drying tunnel, start conveyor and control speed in order to allow cooled cans to pass through drying line conveyor to dry water on cooled cans | | 3 | 1 | 2 |
| | PC35. Load labels in the packaging machine, set date coding machine for date code like batch number, date of manufacture, date of expiry etc. and start machine to label cans | | 2 | 1 | 1 |
| | PC36. Check sample canned product and transfer to quality lab for analysis and to ensure its conformance to quality standards | | 2 | 1 | 1 |
| | PC37. Pack labeled cans into cartons and transfer to storage area manually or mechanically and maintain storage conditions by following SOP | | 2 | 0.5 | 1.5 |
| | PC38. Report discrepancies/concerns to department supervisor for immediate action | | 2 | 0.5 | 1.5 |
| | PC39. Clean the work area, machineries, equipment and tools using recommended cleaning agents and sanitizers | | 1 | 0.5 | 0.5 |
| | PC40. Attend minor repairs/faults of all machines (if any) | | 2 | 0.5 | 1.5 |
| | PC41. Ensure periodic (daily/weekly/monthly/quarterly/half yearly/annual) maintenance of all | | 2 | 0.5 | 1.5 |

| Assessable Outcome | Assessment Criteria | Total Mark (500) | Out Of | Marks Allocation | |
|--|--|------------------|------------|------------------|------------------|
| | | | | Theory | Skills Practical |
| | machines and equipment following the SOP or following suppliers instructions/manuals | | | | |
| | Total | | 100 | 35 | 65 |
| 4. FIC/Q0127: Complete Documentation and Record Keeping Related to Canning of Fruits and Vegetables | PC1. Document and maintain records of details of raw materials and packaging materials as per organizational standards | 100 | 10 | 6 | 4 |
| | PC2. Document and maintain record on observations (if any) related to raw materials and packaging materials | | 5 | 3 | 2 |
| | PC3. Load the raw material details in ERP for future reference | | 5 | 3 | 2 |
| | PC4. Verify the documents and track from finished products to raw materials, in case of quality concerns and during quality management system audits | | 5 | 3 | 2 |
| | PC5. Document and maintain records of production plan with details | | 10 | 6 | 4 |
| | PC6. Document and maintain records of process details for entire production in process chart or production log for all products produced | | 15 | 9 | 6 |
| | PC7. Document and maintain records of batch size, production yield, wastage of raw materials, energy utilization and final product produced | | 10 | 6 | 4 |
| | PC8. Document and maintain record of observations or deviations | | 5 | 3 | 2 |
| | PC9. Load the production plan and process details in ERP for future reference | | 5 | 3 | 2 |
| | PC10. Verify documents and track from finished product to ingredients, in case of quality concerns and for quality management system audit | | 5 | 3 | 2 |
| | PC11. Document and maintain records of finished products | | 3 | 2 | 1 |
| | PC12. Document and maintain records of the finished product details as per organizational standards | | 7 | 4 | 3 |
| | PC13. Document and maintain record on observations or deviations related to finished products | | 5 | 3 | 2 |
| | PC14. Load the finished product details in ERP for future reference | | 5 | 3 | 2 |
| | PC15. Verify the documents and track from finished product to ingredients, in case | | 5 | 3 | 2 |

| Assessable Outcome | Assessment Criteria | Total Mark (500) | Out Of | Marks Allocation | |
|---|--|------------------|------------|------------------|------------------|
| | | | | Theory | Skills Practical |
| | of quality concerns and for quality management system audits | | | | |
| | Total | | 100 | 60 | 40 |
| 5. FIC/N9001: Food Safety, Hygiene and Sanitation for Processing Food Products | PC1. Comply with food safety and hygiene procedures followed in the organization | 100 | 5 | 2 | 3 |
| | PC2. Ensure personal hygiene by use of gloves, masks ,hair net, ear plugs, boots etc. | | 6 | 1 | 5 |
| | PC3. Ensure hygienic production of food by inspecting raw materials, ingredients, finished products etc. for compliance to physical, chemical and microbiological procedures | | 5 | 2 | 3 |
| | PC4. Pack products in appropriate packaging material, label and store them in designated area free from pests, flies etc. | | 10 | 4 | 6 |
| | PC5. Clean, maintain and monitor food processing equipments periodically, using it only for the specified purpose | | 5 | 2 | 3 |
| | PC6. Use safety equipment such as fire extinguisher, eye wash unit, first aid kit when required | | 10 | 4 | 6 |
| | PC7. Follow housekeeping practices by having designated area for machines/tools | | 5 | 2 | 3 |
| | PC8. Follow industry standards like GMP, HACCP and product recall | | 10 | 4 | 6 |
| | PC9. Attend training on hazard management to understand type of physical, chemical and microbiological hazards | | 5 | 1 | 4 |
| | PC10. Identify, document and report problems such as rodents and pests to management | | 5 | 1 | 4 |
| | PC11. Conduct workplace checklist audit before and after work to ensure safety and hygiene | | 5 | 1 | 4 |
| | PC12. Document and maintain raw material, process, packaging material to maintain the effectiveness of quality system | | 4 | 1 | 3 |
| | PC13. Determine the quality of food using criteria such as odor, color, taste and best before date and take immediate measures to prevent spoilage | | 5 | 2 | 3 |
| | PC14. Store raw materials, finished products and allergens separately to prevent cross contamination | | 5 | 2 | 3 |

| Assessable Outcome | Assessment Criteria | Total Mark (500) | Out Of | Marks Allocation | |
|--------------------|---|------------------|------------|------------------|------------------|
| | | | | Theory | Skills Practical |
| | PC15.Label raw materials and finished products and store them in different storage areas according to safe food practices | | 5 | 2 | 3 |
| | PC16.Follow stock rotation based on FEFO/FIFO | | 10 | 4 | 6 |
| | Total | | 100 | 35 | 65 |
| | Grand Total | 500 | 500 | 200 | 300 |
| | Percentage Weightage | | 100 | 40% | 60% |
| | Minimum Pass% to qualify (aggregate): | | | 70% | |