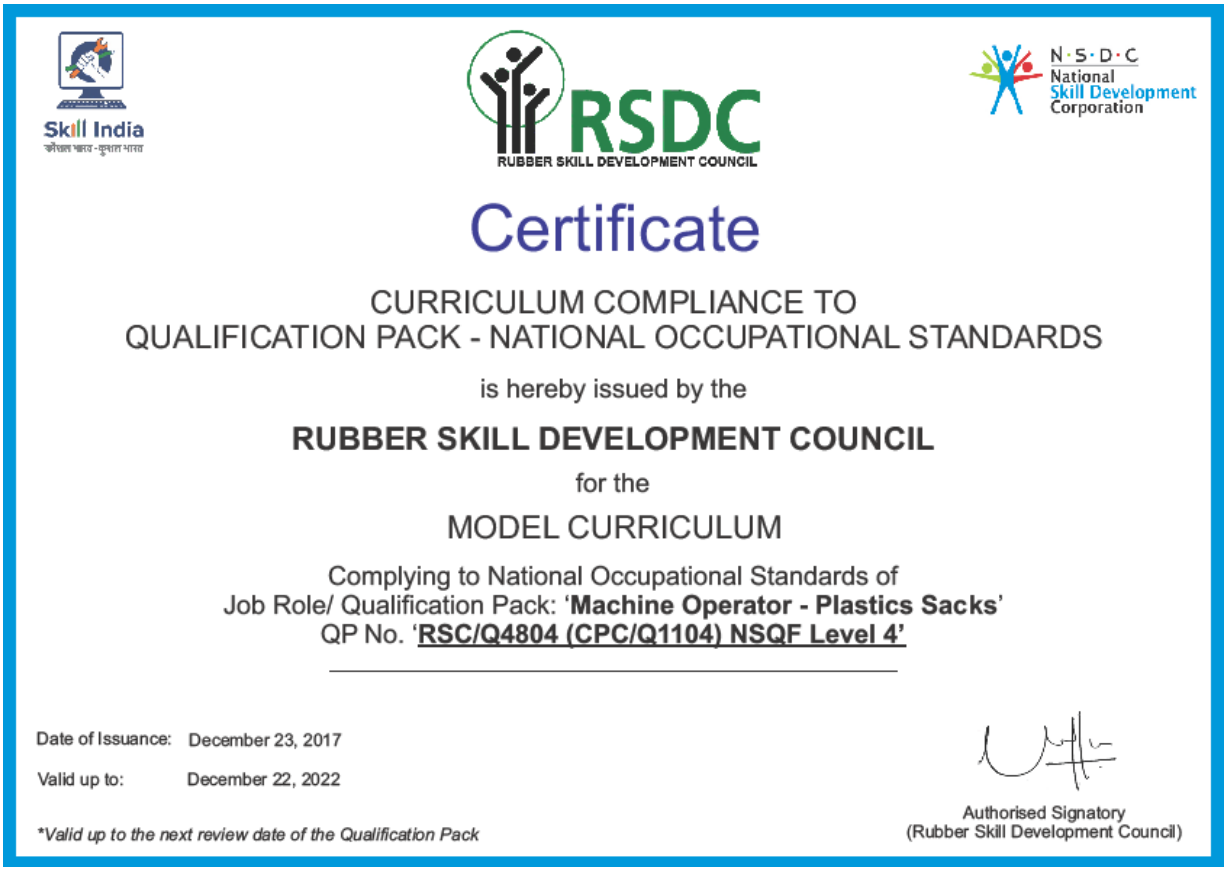
Model Curriculum

Machine Operator – Plastic Sacks

SECTOR: Rubber
SUB-SECTOR: Plastics Processing
OCCUPATION: Plastic Sacks
REF ID: RSC/Q4804 (CPC/Q1104), V1.0
NSQF LEVEL: 4



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RSDC
RUBBER SKILL DEVELOPMENT COUNCIL

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National
Skill Development
Corporation

Certificate

CURRICULUM COMPLIANCE TO
QUALIFICATION PACK - NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

RUBBER SKILL DEVELOPMENT COUNCIL

for the

MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: '**Machine Operator - Plastics Sacks**'
QP No. '**RSC/Q4804 (CPC/Q1104) NSQF Level 4'**

Date of Issuance: December 23, 2017

Valid up to: December 22, 2022

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

Authorised Signatory
(Rubber Skill Development Council)

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Machine Operator – Plastic Sacks

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a "Machine Operator – Plastic Sacks", in the "Rubber" Sector/Industry and aims at building the following key competencies amongst the learner.

Program Name	**Machine Operator – Plastic Sacks**		
Qualification Pack Name & Reference ID	RSC/Q 4804 (CPC/Q1104), v1.0		
Version No.	1.0	**Version Update Date**	29/05/2018
Pre-requisites to Training	Xth Standard		
Training Outcomes	**After completing this programme, participants will be able to:** • Comply with the health, safety and security procedures stated by the organisation. • Perform fitting operations on machining components using hand tools to make shape of the component from raw material as per the given drawing specifications. • Describe the fundamentals of polymers and demonstrate their relationship with the molecular structure, polymerization techniques used for manufacturing polymers and classifications, thermoplastics materials, their properties and end use application as a sack and tapes. • Describe the plastics processing methods with respect to plastics sack and formulations to make plastic sack /tape with help of process parameters. • Perform weaving, loom operations and related processes including sack and tape manufacturing. • Set up plastic auxiliary equipment consists of several components, such as material management, reclamation and heat transfer. • Use communication and soft skills including situational awareness and the ability to read a situation to yield best results for all involved. • Identify the business opportunities available in the market. • Perform improvement activities in quality, cost, safety, delivery and employee morale.		

This course encompasses 9 out of 9 NOS (National Occupational Standards) of "Machine Operator – Plastic Sacks" Qualification Pack issued by "Rubber Skill Development Council".

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	**Introduction** **Theory Duration** (hh:mm) 16:00 **Practical Duration** (hh:mm) 08:00 **Corresponding NOS Code** Bridge Module	• State the development history of plastic. • Describe current industrial scenario of plastics and prospects. • Identify types of plastic. • Recognise major industrial associations. • Identify equipment used for plastic sacks process. • Describe the roles and responsibilities of a "Machine Operator – Plastic Sacks".	White board, marker, duster, Laptop/PC, projector, flipcharts, samples – Tape / yarn produced from plastic resin
2	**Health and safety at the workplace** **Theory Duration** (hh:mm) 16:00 **Practical Duration** (hh:mm) 32:00 **Corresponding NOS Code** RSC/N4101 (CPC/N0411)	• Practice safe working techniques while dealing with hazards to ensure the safety of self and others. • Use the appropriate fire extinguishers on different types of fires. • Demonstrate rescue techniques applied during fire hazard. • Practice good housekeeping in order to prevent fire hazards. • Identify activities which can cause potential injury. • Inform the concerned authorities on the potential risks identified. • Perform the sorting process for the tools, fixtures and jigs. • Segregate waste in hazardous and non-hazardous waste categories • Demonstrate the technique of waste disposal and waste storage as per standard operating procedure (SOP). • Demonstrate the proper labeling mechanism of instruments/ boxes/ containers.	White board, marker, duster, laptop/PC, projector, safety goggles, rubber gloves, heat protecting gloves, fire extinguisher, apron, helmet, first aid box
3	**Measurement and preparation for fitting operations** **Theory Duration** (hh:mm) 24:00 **Practical Duration** (hh:mm) 48:00	• Comply with health and safety, environmental & other relevant regulations • Follow laid down procedures and instructions for carrying out measurement. • Clean the work area and make it safe from hazards before starting the work. • Perform check that all tools, equipment, power tool cables, extension leads are in a safe and usable condition.	White board, marker, duster, laptop/PC, projector, weighing balance, hammer, screw driver set, allen key hexagonal, hacksaw, adjustable, spanner set double side, calculator,

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Corresponding NOS Code RSC/N4109 (CPC/N 0420)	• Comprehend job requirements from the job specification document properly before starting the work. • Report and rectify incorrect information in job specification documents, if any. • Prepare for the fitting operations as per procedure • Perform calibration status check of all the measuring instruments used. • Perform collection of correct work pieces & consumables as per job requirements • Identify and select appropriate tools and measuring instruments. • Set up the work pieces as per job requirements using appropriate holding devices. • Demonstrate marking of specified features with the help of appropriate measuring and marking tools on the work pieces as per the job specification. • Perform marking on templates for tracing/ transferring the specified features on the work pieces as per the drawing. • Perform specified features tracing or transferring from the templates on to the work pieces as per the drawing.	pliers, cutters, striking tools, and knives, safety goggles, rubber gloves, heat protecting gloves, fire extinguisher, apron, helmet, first aid box, cleaning equipment, Die size 16mm to 70 mm, Automatic hopper loader, hot air oven and dryer, dehumidifier, mould temperature controller, scrap grinder, crane, air compressor, hot air blow gun, cooling tower, single screw extrusion blown film plant with accessories twine /single screw extrusion plant with tape extrusion accessories, chease winders with shuttles / circular weaving machine / heavy duty sewing machine, two colour printing machine
4	**Perform fitting operations** **Theory Duration** (hh:mm) 24:00 **Practical Duration** (hh:mm) 48:00 **Corresponding NOS Code** RSC/N4109 (CPC/N 0421)	• Follow the procedures and guidelines for personal protective equipment (PPE) and other relevant safety regulations while performing dye fitting operations. • Perform fitting operations on various forms of metal components using a range of hand tools and manually operated machines. • Follow the specified machining sequence and procedure as per job specifications. • Perform fitting operations, independently and safely to produce components with various features as per the specifications.	White board, marker, duster, laptop/PC, projector, weighing balance, hammer, screw driver set, allen key hexagonal, hacksaw, adjustable, spanner set double side, calculator, pliers, cutters, striking tools, and knives, safety goggles, rubber

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		• Measure the finished components as per the specifications. • Identify areas requiring corrective action, improve performance and increase efficiency. • Perform the quality checks of the output as per the required standards, by visual checks and measurement of dimensional parameters using measuring instruments. • Perform documentation during & post fitting operations as per procedures • Demonstrate process of equipment handover during shift change to next shift operator.	gloves, heat protecting gloves, fire extinguisher, apron, helmet, first aid box, cleaning equipment, Die size 16mm to 70 mm, Automatic hopper loader, hot air oven and dryer, dehumidifier, mould temperature controller, scrap grinder, crane, air compressor, hot air blow gun, cooling tower, single screw extrusion blown film plant with accessories twine /single screw extrusion plant with tape extrusion accessories, chease winders with shuttles / circular weaving machine / heavy duty sewing machine, two colour printing machine
4	**Tests for Polymers & thermoplastics** **Theory Duration** (hh:mm) 24:00 **Practical Duration** (hh:mm) 48:00 **Corresponding NOS Code** RSC/N4110 (CPC/N 0421)	• Describe the importance of polymers. • Explain fundamental terminology of the polymers. • Describe the types of polymers thermoplastics and elastomers. • Explain the types of polymerization, condensation, addition, and copolymerization. • Perform the measurement of molecular weight and sizes-structure of polymer. • Describe the properties of the commodity polymers like: polyolefin, LDPE, HDPE, LLDPE, PP etc. • Explain the properties of the engineering polymers like: PC, ABS, PMMA, POM, PA-NYLON etc. • Describe the properties of the special polymers: FEP, PVDF etc. • Use PP and HDPE for the tape and sack production.	White board, marker, duster, laptop/PC, projector, weighing balance, cutters, knives, safety goggles, rubber gloves, heat protecting gloves, fire extinguisher, apron, helmet, first aid box, cleaning equipment

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		• Demonstrate the conventional methods of material identification such as drop test, water floatation test and scratch test. • Demonstrate the advanced methods of material identification such as MFI, Melting etc.	
5	**Preparation for the woven sack/ raffia plant operations** **Theory Duration** (hh:mm) 32:00 **Practical Duration** (hh:mm) 64:00 **Corresponding NOS Code** RSC/N4810 (CPC/N1122)	• Select the material for the woven sack • Describe the end applications of tape/ sack. • Describe the principle of plastics sack/ tape process. • Compare the merits and demerits of sack/ tape process over all the others plastic process. • Define the terminology related to sack/ tape process. • Prepare the tape extrusion process such as quenching, heating and orientation by stretching annealing, winding etc. • Prepare machine for film extrusion, such as blown film, flat film and cast film. • Prepare machine for special film extrusion, such as tubular quench film (TQ), expanded film, and co-extruded film & sheet. • Prepare the machine for pipe/ tube extrusion process. • Prepare the pipe extruder dye, constructive feature, size and specification. • Prepare for special extrusion process, such as tapes, woven sack, and mono-filament manufacturing process. • Set up the parameters, including product shape and size, plastic type, quantity to be produced, • Prepare for conversion processes, such as: lamination sealing cutting, printing and other processes.	White board, marker, duster, laptop/PC, projector, weighing balance, hammer, screw driver set, allen key hexagonal, hacksaw, adjustable, spanner set double side, calculator, pliers, cutters, striking tools, and knives, safety goggles, rubber gloves, heat protecting gloves, fire extinguisher, apron, helmet, first aid box, cleaning equipment, Die size 16mm to 70 mm, Automatic hopper loader, hot air oven and dryer, dehumidifier, mould temperature controller, scrap grinder, crane, air compressor, hot air blow gun, cooling tower, single screw extrusion blown film plant with accessories twine /single screw extrusion plant with tape extrusion accessories, chease winders with shuttles / circular weaving machine / heavy

Sr. No.	Module	Key Learning Outcomes	Equipment Required
			duty sewing machine, two colour printing machine
6	**Perform the woven sack/raffia plant operations** **Theory Duration** (hh:mm) 32:00 **Practical Duration** (hh:mm) 64:00 **Corresponding NOS Code** RSC/N4810 (CPC/N1122)	• Perform preheating and pre operations of plastic if required. • Demonstrate the process of plastic material mixing with additives, fillers (if any) before being fed into the hopper. • Conduct a test process and produce a sample output as per requirement. • Perform the tape extrusion process such as quenching, heating and orientation by stretching annealing, winding etc. • Perform film extrusion, such as blown film, flat film and cast film. • Perform special film extrusion, such as tubular quench film (TQ), expanded film, and co-extruded film & sheet. • Perform pipe/ tube extrusion process, independently and safely. • Perform sizing method, take off method & post operation method. • Perform special extrusion process, such as: tapes, woven sack, monofilament manufacturing process. • Perform in-process quality and process parameter inspection for producing quality product. • Assess actual production against production plan and take appropriate action if any gap is observed. • Demonstrate post production and storing operations. • Perform the shut-down procedure of extruder, tape line/ circular looms and weaving machines etc. • Perform conversion processes, such as: lamination sealing cutting, printing and other processes.	White board, marker, duster, laptop/PC, projector, weighing balance, hammer, screw driver set, allen key hexagonal, hacksaw, adjustable, spanner set double side, calculator, pliers, cutters, striking tools, and knives, safety goggles, rubber gloves, heat protecting gloves, fire extinguisher, apron, helmet, first aid box, cleaning equipment, mould temperature controller, scrap grinder, crane, air compressor, hot air blow gun, cooling tower, single screw extrusion blown film plant with accessories twine /single screw extrusion plant with tape extrusion accessories, chease winders with shuttles / circular weaving machine / heavy duty sewing machine, two colour printing machine

Sr. No.	Module	Key Learning Outcomes	Equipment Required
8	**Weaving technology and Loom operations** **Theory Duration** (hh:mm) 32:00 **Practical Duration** (hh:mm) 64:00 **Corresponding NOS Code** RSC/N4811 (CPC/N1123)	• Describe the principle of weaving technology and loom operation. • Identify basic tools and accessories and machineries. • Select the raw material for loom, weaving machines operation. • Perform various types of loom, weaving machines operation process. • Perform various types of loom, such as shuttle, projectile loom, rapier loom water jet loom, air jet loom and circular looms etc. • Perform single phase and multiphase weaving. • Perform set-up of loom and weaving machine. • Describe merits and demerits of loom and weaving process over other process. • Assess the feed strip for dimension uniformity/ identified tape. • Determine broken warp ends and the location of the broken end. • Determine the location using the indication lamp and by bringing the hands over the droppers, with electrical warp stop motion. • Identify the tape defects like wrong drawing, wrong denting, end out, double end etc., • Take corrective action for identified defects. • Perform cleaning of the machines & work area to ensure good working atmosphere. • Perform trimming of the loose threads after attending to the warp breaks. • Assess the operation of weaving and loom apparatus as per the checklist provided. • Perform the fixing of the desired loom and weaving in loom machine apparatus as per the work instruction. • Perform modifications in the process parameters. • Distinguish between the common and moderns weaving machine • Illustrate the new development in-shuttle, projectile loom, rapier loom water jet loom, air jet loom and circular looms etc.	White board, marker, duster, laptop/PC, projector, weighing balance, hammer, screw driver set, allen key hexagonal, hacksaw, adjustable, spanner set double side, calculator, pliers, cutters, striking tools, and knives, safety goggles, rubber gloves, heat protecting gloves, fire extinguisher, apron, helmet, first aid box, cleaning equipment, Die size 16mm to 70 mm, Automatic hopper loader, hot air oven and dryer, dehumidifier, mould temperature controller, scrap grinder, crane, air compressor, hot air blow gun, cooling tower, single screw extrusion blown film plant with accessories twine /single screw extrusion plant with tape extrusion accessories, chease winders with shuttles / circular weaving machine / heavy duty sewing machine, two colour printing machine

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		• Demonstrate making adjustment in the weaving and loom machine with the help of tools and software.	
8	**Inspection and finishing of Loom operations** **Theory Duration** (hh:mm) 32:00 **Practical Duration** (hh:mm) 64:00 **Corresponding NOS Code** RSC/N4811 (CPC/N1123)	• Perform the functionality check of weaving and loom machine as per SOP. • Demonstrate the adjustment in the weaving and loom machine program with the help of tools and software as per requirement. • Demonstrate the molding procedure for completing the work order from the supervisor by using the work instruction. • Describe the type of looms and weaving required for executing the required finishing operation. • Perform pouring operation in line with defined standards and specifications • Perform functionality check of weaving and loom machine as per SOP. • Record the observations during operations, such as: interrupted pouring or any abnormality. • Conduct a test process and produce a sample output as per the sketches/ engineering drawing. • Measure the dimensions of the output product as per the process given in the work instructions. • Measure the parts dimensions and take corrective actions in case the parts are not as per the given measurements. • Perform the disposal of rejected production batch. • Record output of each category of work as per the batch etc. • Determine the linkage between rejection of output and the pertinent causes and recommend the actions for rejection control. • Perform minor defects rectification, such as: dimension variation, thickness variation etc. by controlling the process parameters. • Perform escalation of all the issues related to change in surface properties, tensile strength etc. • Demonstrate sample submission of first and last output from each batch to the lab for quality check on its composition, properties etc.	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
9	**Auxiliary equipment used in plastics sacks** **Theory Duration** (hh:mm) 24:00 **Practical Duration** (hh:mm) 72:00 **Corresponding NOS Code** RSC/N4806 (CPC/N1116)	• Perform inspection, monitoring and operations of the fuel systems, fuel oil transfer, supply lines & associated equipment and fuel chillers. • Operate feed water systems, circulating and cooling water systems, condensate and makeup systems, circulating service water treatment equipment, auxiliary lube oil systems, emission control equipment and miscellaneous equipment. • Comply with the safety rules, regulations and procedures for operating auxiliary equipment. • Perform initial checks of operating conditions before initiating production runs. • Perform cleaning and lubrication of equipment and tooling. • Perform various preventative maintenance tasks as per the work instructions. • Operate different types of pre-drier hot air oven, hopper driers, dehumidifiers etc. • Operate chiller, cooling tower for the controlling temperature of mould, machine and fluids. • Demonstrate the basic operation and monitoring, such as: watching gauges, dials, or other indicators to ensure a machine is working properly. • Operate the compressor and scrap grinder safely. • Perform the routine maintenance of equipment as per the defined frequency. • Determine the required tools and equipment to carry out a job. • Operate the machine using the recommended Personal Protective Equipment (PPE). • Maintain a clean and safe working environment near the work place and ensure there is no spillage of chemicals, production waste, oil, solvents etc. • Perform the waste disposal in the designated area and as per the organization's SOP.	White board, marker, duster, laptop/PC, projector, hammer, screw driver set, allen key hexagonal, spanner set double side, calculator, pliers, striking tools, knives, safety goggles, rubber gloves, heat protecting gloves, fire extinguisher, apron, helmet, first aid box, cleaning equipment, automatic hopper loader, hot air oven and dryer, dehumidifier, mould temperature controller, scrap grinder, crane, air compressor, hot air blow gun, cooling tower

Sr. No.	Module	Key Learning Outcomes	Equipment Required
10	**Communication and soft skills** **Theory Duration** (hh:mm) 24:00 **Practical Duration** (hh:mm) 64:00 **Corresponding NOS Code** RSC/N4108 (CPC/N0418)	• Communicate appropriately at work place. • Apply active listening skills while interacting with others at work. • Demonstrate disciplined behaviors at the workplace. • Communicate effectively and accurately to receive and passing on the information. • Escalate grievances and problems to the designated authority in time for appropriate actions. • Assist others in performing tasks positively. • Use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism • Identify parts of a computer. • Perform basic computer operations. • Use MS office of data entry and simple operations.	White board, marker, duster, Laptop/PC, projector, MS office, flipcharts
11	**Testing and quality control** **Theory Duration** (hh:mm) 24:00 **Practical Duration** (hh:mm) 72:00 **Corresponding NOS Code** RSC/N4812 (CPC/N1127)	• Describe the significance of the raw material and product testing. • Describe the significance of quality control of product. • Explain the concept of quality control, conduct quality checks. • Perform raw material and product inspection, analysis and reporting as per organization Standard Operating Procedure. • Describe the Total Quality Management philosophy. • Describe total quality control tools- ISO, 5S, Six Sigma, OHSAS 18001 and ASTMD. • Apply the prescribed national and international standards on regular intervals. • Use appropriate measuring instruments, equipment, tools, accessories etc., as prescribed / required. • Identify non-conformities to quality assurance standards. • Identify potential causes of non-conformities to quality assurance standards • Identify impact on final product due to non-conformance to prescribed standards.	White board, marker, duster, laptop/PC, projector, inspection equipment, safety goggles, rubber gloves, heat protecting gloves, fire extinguisher, apron, helmet, first aid box, cleaning equipment

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		• Describe the significance for action to ensure that problems do not reoccur. • Suggest corrective action to address problem. • Review effectiveness of corrective action. • Interpret the results of the quality check correctly. • Present results of the findings with QC in charge/appropriate authority within stipulated time. • Record of results of action taken and adjustments not covered by established procedures for future reference. • Perform escalation in case the cause of defect cannot be identified.	
12	**Behavior science and entrepreneurship** **Theory Duration** (hh:mm) 16:00 **Practical Duration** (hh:mm) 32:00 **Corresponding NOS Code** RSC/N4813 (CPC/N1128)	• Describe the significance of behavior science and entrepreneurship. • Compare the difference between behavioral science and social science. • Describe the categories of behavioral science. • Explain the steps of entrepreneurship development, selecting a plastic product for the project and preparing project report. • Create cordial relations with various clients for the benefit of business. • Assess the needs and requirement of the clients in comparison with one's own unique selling proposition. • Develop the plan and budget with reference to various plastic sack and tape for the next process. • Create the books of accounts and financial transactions. • Determine the prices of various inputs and products from the market • Assess the influence of various quality parameters of products/pellets on the product pricing. • Determine critical market information that is otherwise not in the public domain. • Choose appropriate buyer in a given situation of market parameters • Identify best ways of attracting market price for one's produce • Describe the significance of quality before and during the sales to ensure good returns.	White board, marker, duster, Laptop/PC, projector, flipcharts

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Total Duration: **Theory Duration 288:00** **Practical Duration 672:00**	**Unique Equipment Required:** White board, marker duster, laptop/PC, projector, weighing balance, hammer, screw driver set, allen key hexagonal, hacksaw, adjustable, spanner set double side, calculator, pliers, cutters, striking tools, knives, safety goggles, rubber gloves, heat protecting gloves, fire extinguisher, apron, helmet, first aid box, cleaning equipment, die size 16mm to 70 mm, automatic hopper loader, hot air oven and dryer, dehumidifier, mould temperature controller, scrap grinder, crane, air compressor, hot air blow gun, cooling tower, single screw extrusion blown film plant with accessories, twine /single screw extrusion plant with tape extrusion accessories, chease winders with shuttles / circular weaving machine / heavy duty sewing machine, two colour printing machine, inspection equipment, safety goggles, rubber gloves, heat protecting gloves, fire extinguisher, apron, helmet, first aid box, cleaning equipment.	

Grand Total Course Duration: 960 Hours, 0 Minutes.

*(This syllabus/ curriculum has been approved by **Rubber Skill Development Council)***

Trainer Prerequisites for Job role: "Machine Operator Plastics Sacks" mapped to Qualification Pack: "RSC/Q4804 (CPC/Q1104), 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 "RSC/Q4804 (CPC/Q1104) Version 1.0".
2	**Personal Attributes**	Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well- organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	**Minimum Educational Qualifications**	Any Graduate preferably in plastic technology.
4a	**Domain Certification**	Certified for Job Role: "Machine Operator - Plastics Sacks" mapped to QP: "RSC/Q4804 (CPC/Q 1104)". Minimum accepted score as per SSC guidelines is 80%.
4b	**Platform Certification**	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "MEP/ Q2601". Minimum accepted score as per SSC guidelines is 80%.
5	**Experience**	5+ years of relevant work-experience, above supervisor level.

Annexure: Assessment Criteria

Assessment Criteria	
Job Role:	**Machine Operator - Plastics Sacks**
Qualification Pack Code:	**RSC/Q4804 (CPC/Q1104)**
Sector Skill Council:	**Rubber Skill Development Council**

S. 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 center (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 criterion.
5	To pass the Qualification Pack, every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.
6	In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
RSC/N4101 (CPC/N0411) Maintain basic health and safety practices at the workplace, 5S	PC1. Wear protective clothing / equipment for specific tasks and work conditions.	40	1.5	0.5	1
	PC2. Carry out safe working practices while dealing with hazards to ensure the safety of self and others.		1.5	0.5	1
	PC3. Keep good housekeeping practices at all times.		1.5	0.5	1
	PC4. Use the various appropriate fire extinguishers on different types of fires correctly.		1.5	0.5	1
	PC5. Demonstrate rescue techniques applied during fire hazard, demonstrate good housekeeping in order to prevent fire hazards, demonstrate the correct use of a fire extinguisher.		2.5	0.5	2
	PC6. Identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals, loud noise, and Identify areas in the plant which are potentially hazardous / unhygienic in nature. Conduct regular checks with support of the maintenance team on machine health to identify potential hazards due to wear and tear of machine.		2.5	0.5	2
	PC7. Inform the concerned authorities on the potential risks identified in the processes, workplace area/ layout, materials used etc., Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations.		2.5	0.5	2
	PC8. Create awareness amongst other by sharing information on the identified risks.		2.5	0.5	2
	PC9. Follow the sorting process and check that the tools, fixtures and jigs that are lying on workstations are the ones in use and un- necessary items are not cluttering the work benches or work surfaces.		2.5	0.5	2
	PC10. Ensure segregation of waste in hazardous / non-hazardous waste as per the sorting work instructions.		2.5	0.5	2
	PC11. Follow the technique of waste disposal and waste storage in the proper bins as per SOP.		2.5	0.5	2
	PC12. Segregate the items which are labelled as red tag items for the process area and keep them in the correct places.		2.5	0.5	2
	PC13. Sort the tools / equipment / fasteners / spare parts as per specifications / utility into proper trays, cabinets, lockers as mentioned in the 5S guidelines / work instructions.		2.5	0.5	2

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC14. Ensure that areas of material storage areas are not overflowing. PC15. Properly stack the various types of boxes and containers as per the size / utility to avoid any fall of items/ breakage and also enable easy sorting when required.		2.5	0.5	2
	PC16. Return the extra material and tools to the designated sections and make sure that no additional material/ tool are lying near the work area.		1.5	0.5	1
	PC17. Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards.		1.5	0.5	1
	PC18. Follow the proper labelling mechanism of instruments / boxes / containers and maintaining reference files/ documents with the codes and the lists.		1.5	0.5	1
	PC19. Check that the items in the respective areas have been identified as broken or damaged.		1.5	0.5	1
	PC20. Follow the given instructions and check for labelling of fluids, oils. lubricants, solvents, chemicals etc. and proper storage of the same To avoid spillage, leakage, fire etc.		1.5	0.5	1
	PC21. Make sure that all material and tools are stored in the designated places and in the manner indicated in the 5S instructions.		1.5	0.5	1
	Total		**40**	**10**	**30**
RSC/N4109 (CPC/N0420) Advanced method for fitting tools measuring equipment and practice	PC1. Comply with health and safety, environmental and other relevant regulations and guidelines at work.	**90**	6	2	4
	PC2. Adhere to procedures and guidelines for personal protective equipment (PPE) and other relevant safety regulations while performing die fitting operations.		6	2	4
	PC3. Work following laid down procedures and instructions.		6	2	4
	PC4. Ensure work area is clean and safe from hazards.		6	2	4
	PC6. Obtain job specification from a valid and approved source.		5	1	4
	PC7. Read and understand job requirements from the job specification document properly.		4	1	3
	PC8. Report and rectify incorrect information in job specification documents as per job requirement.		4	1	3
	PC9. Preparation for the fitting operations as per procedure.		4	1	3
	PC10. Ensure that all calibrated measuring instruments used.		4	1	3

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC11. Ensure that the components used are free from foreign objects, dirt and corrosion.		4	1	3
	PC12. Obtain correct work pieces and consumables as per job requirements.		4	1	3
	PC13. Obtain appropriate tools and measuring instruments.		3	1	2
	PC14. Setting of work pieces as per job requirements using appropriate holding devices.		3	1	2
	PC15. Mark specified features with the help of marking-out methods on the work pieces as per job specification by using appropriate measuring and marking tools.		3	1	2
	PC15. Mark specified features with the help of marking-out methods on the work pieces as per job specification by using appropriate measuring and marking tools.		3	1	2
	PC16. Mark out templates for tracing / transferring the specified features on the work pieces as per drawing.		3	1	2
	PC17. Trace or transfer the specified features from the templates onto the work pieces as per drawing.		2.5	0.5	2
	PC18. Perform fitting operations on various forms of metal components using a range of hand tools and manually operated machines.		2.5	0.5	2
	PC19. Follow the specified machining sequence and procedure as per job specifications.		2.5	0.5	2
	PC20. Check the machined components to ensure completeness of work.		2.5	0.5	2
	PC21. Check the quality of the output as per required standards, using visual checks and measurement of dimensional parameters using measuring instruments.		2.5	0.5	2
	PC22. Produce components with various features as per standards applicable to the process.		2.5	0.5	2
	PC23. Check the finished components as per job requirement.		2.5	0.5	2
	PC24. Complete documentation during and post operations as per procedures.		1.5	0.5	1
	PC25. Return all tools and equipment to the correct location on completion of the fitting activities.		1.5	0.5	1
	PC26. Leave the work area in a safe and tidy condition on completion of job activities.		1.5	0.5	1
	Total		**90**	**25**	**65**

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
RSC/N4110 (CPC/N0421) Introduction and test method for polymers & thermo-plastics materials	PC1. Leave the basic importance of polymers in human life.	**60**	2	1	1
	PC2. Study of fundamental terminology of polymers.		2	1	1
	PC3. Study the classification of polymers- polymer structure and morphology, etc.		5	1	4
	PC4. Study the Introduction to monomers and polymers.		5	1	4
	PC5. Study the types of polymers-Thermoplastics, Thermoset and elastomers.		5	1	4
	PC6. Study the types of polymerization- condensation-addition- copolymerization.		5	1	4
	PC7. Study the characterization.		8	2	6
	PC8. Study the polymer solution.		7	1	6
	PC9. Learn measurement of molecular weight and sizes-structure and properties of polymers.		5	1	4
	PC10. Study the commodity polymers: Polyolefin: LDPE – HDPE – LLDPE, PP etc.		5	1	4
	PC11. Study the engineering polymers: PC, ABS, PMMA, POM and PA- Nylon etc.		5	1	4
	PC12. Study the special polymers: FEP, PVDF etc.		2	1	1
	PC15. Determine methods of identification: drop test, water floatation test, scratch test.		2	1	1
	PC16. Determine advanced methods of identification:-MFI, Melting etc.		2	1	1
	Total		**60**	**15**	**45**
RSC/N4810 (CPC/N1122) Perform the woven sack / raffia plant operations with start up and shut down procedure	PC1. Learn the needs for plastics sack / tape process principle.	**100**	3	1	2
	PC2. Ensure merits and demerits of sack / tape process to over the all others plastic Process.		3	1	2
	PC3. Learn the definition and terminology related to sack / tape process.		3	1	2
	PC4. Ensure finishing operation including surface treatment of the fabricated product if required as per SOP,		3	1	2
	PC5. Follow start up procedure.		3	1	2
	PC6. Learn the tape extrusion line and its terminology-as quenching, heating and orientation by stretching annealing, winding etc.		3	1	2
	PC7. Perform Film extrusion: Types and specification requires. Blown film, Flat film, cast film.		3	1	2

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC8. Special film extrusion: - Tubular quench film (TQ), expanded film, co-extruded film and sheet etc.		3	1	2
	PC9. Perform pipe / tube extrusion process: - Introduction, development different features. Construction and operation pipe extrusion line according to various material and sizes.		3	1	2
	PC10. Observe sizing method, take off method and post operation method.		2.5	0.5	2
	PC11. Learn the pipe extruder die, constructive feature, size and specification.		2.5	0.5	2
	PC12. Perform special extrusion process- Tapes, woven sack, mono filament manufacturing process.		2.5	0.5	2
	PC13. Study the introduction technology development		2.5	0.5	2
	PC14. Learn The type of process to be used depends on a variety of factors.		2.5	0.5	2
	PC15. Set the parameters, including product shape and size, plastic type, quantity to be produced.		2.5	0.5	2
	PC16. Ensure the quality and accuracy (Tolerances) required,		2.5	0.5	2
	PC17. Ensure the design load performance, cost limitation, and time schedule.		2.5	0.5	2
	PC18. Set the common process parameter like temperature, pressure and speed and its controls.		2.5	0.5	2
	PC19. Learn the effect of process parameters on product properties.		2.5	0.5	2
	PC20. Take trial production and checking product stabilization.		2.5	0.5	2
	PC21. Observe actual production and parameter/ process control.		2.5	0.5	2
	PC22. Follow quality check and continuous production.		2.5	0.5	2
	PC23. Follow post production and storing.		2.5	0.5	2
	PC24. Study the machine operation and process parameter of sack / tape. PC25. Machine: as per manual, semi-automatic, fully automatic and parameters – time, temperature, pressure and speed etc.		2.5	0.5	2
	PC26. Learn the shut down procedure- extruder, tape line/ circular looms and weaving machines etc.		2.5	0.5	2
	PC27. Learn the type of conversion techniques: lamination sealing cutting, printing and other processes.		2.5	0.5	2
	PC28. Select the material to be criteria processed.		2.5	0.5	2

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC29. Study the end applications of using tape / sack.		2.5	0.5	2
	PC30. Perform process limitations.		2.5	0.5	2
	PC31. Follow the quality.		2.5	0.5	2
	PC32. Perform safety equipment and its use.		2.5	0.5	2
	PC33. Perform preheating and pre operations of plastic if required.		2.5	0.5	2
	PC34. Ensure that the plastic materials are mixed with additives, fillers (if any) before being fed into the hopper.		2.5	0.5	2
	PC35. Conduct a test process and produce a sample output as per requirement.		2.5	0.5	2
	PC36. Feed the required operation code in the apparatus for heaters to melt the plastic material at the predefined temperature.		1.5	0.5	1
	PC37. Enter process temperature, volume of plastic material and weight settings in the machine as per data sheet.		1.5	0.5	1
	PC38. Enter machine and process parameters such as pressure and time as per the data sheet.		1.5	0.5	1
	PC39. Ensure that the inspection and dimension of the output tape / sack are inspected and measured as per the process given in the work Instructions/ SOP.		1.5	0.5	1
	PC40. Starts the production process, in case the test product or tape / sack match the quality of the final output.		1.5	0.5	1
	PC41. Make modifications in the process parameters (by selecting the right program from the machine control system).		1.5	0.5	1
	PC42. Follow the check-list procedure to ensure quality of final product.		1.5	0.5	1
	Total		**100**	**25**	**75**
RSC/N4811 (CPC/N1123) Weaving technology and loom operation (Circular)	PC1. Study the principle of weaving technology and loom operation.	**140**	1.5	0.5	1
	PC2. Ensure basic need of tools and accessories and machineries.		1.5	0.5	1
	PC3 Select the raw material for loom, weaving machines operation.		1.5	0.5	1
	PC4. Perform various types of Loom, weaving machines operation process.		2.5	0.5	2
	PC5. Perform various types of loom:- shuttle , projectile loom, rapier loom water jet loom, air jet loom and circular looms etc.		2.5	0.5	2

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC6. Learn type of weaving – single phase and multiphase.		2.5	0.5	2
	PC7. Set loom, weaving machine operation merits and demerits / over other process.		2.5	0.5	2
	PC8. Check the identified feed strip for dimension uniformity / identified tape.		2.5	0.5	2
	PC9. Make tiny and firm weaver's knots.		2.5	0.5	2
	PC10. Find out broken warp ends; find out the location of the broken end, by bringing the hands under the dropper bars, with mechanical droppers. Detect the location using the indication lamp and by bringing the hands over the droppers, with electrical warp stop motion.		2.5	0.5	2
	PC11. Mind the broken warp end in the sized beams with the thrums of the same count of the sized beams, using “weavers ' knots" PC12. Draw the mended warp yarn through the helds properly, as per the drawing order.		2.5	0.5	2
	PC13. Run the loom by pulling the starting handle with full torque.		2.5	0.5	2
	PC14. Correct the tape defects like wrong drawing, wrong denting, end out, double end etc., immediately and also ensure that the other tape defects too are corrected at the earliest, before continuing further production.		2.5	0.5	2
	PC15. Clean the machines and work area, so as to ensure good working atmosphere, without damaging the tape in the looms where the cleaning work is carried out as well as in the adjacent and opposite looms. Should not misuse “air”. Can use air for cleaning, only in the areas.		2.5	0.5	2
	PC16. Ensure that the loose threads are hanged in higher accordingly, and trimmed, after attending to the warp breaks.		2.5	0.5	2
	PC17. Avoid pulling out warp ends unnecessarily. If end is getting cut often in the selvedge, the same has to be brought to the notice of the mechanics / fitters / superiors and get it corrected.		2.5	0.5	2
	PC18. Check for operation of weaving and loom apparatus as per the checklist provided.		2.5	0.5	2
	PC19. Fix the desired loom to the weaving and loom machine apparatus in order to achieve the desired operation as per the work Instructions/ SOPs.		2.5	0.5	2

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC20. Make modifications in the process parameters (by selecting the right program from the machine control system) if required and ensure alignment with the prescribed standards.		2.5	0.5	2
	PC21. Know about the modern developments in weaving and looms.		2.5	0.5	2
	PC22. Develop the work on producing tape from new generation polymeric material.		2.5	0.5	2
	PC23. Compare with common and moderns weaving machine.		2.5	0.5	2
	PC24. Observe the new development in- shuttle, projectile loom, rapier loom water jet loom, air jet loom and circular looms etc.		2.5	0.5	2
	PC25. Follow the modern techniques- electronic braking system, automatic pick controller, quick step filling presenter, PFL, QSC, EISY, PSO, and FDEI etc.		3	1	2
	PC26. Ensure the functionality and assembly of weaving and loom machine as per SOP.		3	1	2
	PC27. Adjust the weaving and loom machine controlling and program with the help of tools and software as per requirement.		3	1	2
	PC28. Learn the molding procedure and process to be adopted for completing the work order from the supervisor by referring the work instruction document/ SOP manual.		3	1	2
	PC29. Ensure that the required material is procured from the store before starting the process.		3	1	2
	PC30. Ensure the type of looms and weaving required for executing the required operation and ensure that the same is available for operations		3	1	2
	PC31. Ensure pouring in line with defined standards and specifications.		3	1	2
	PC32. Record the feeding observations like interrupted pouring or any abnormality.		3	1	2
	PC33. Conduct a test process and produce a sample output as per the sketches / engineering drawing shared with the supervisor.		3	1	2
	PC34. Ensure that the dimensions of the output product are measured as per the process given in the work instructions/ SOP.		3	1	2
	PC35. In case the parts are not as per the given measurements, send the same for further processing in terms of cutting, finishing etc.		3	1	2

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC36. Note down the observations of the basic inspection process and Identify pieces which are OK and also not meeting the specified standards.		3	1	2
	PC37. Ensure the functionality and assembly of weaving and loom machine as per SOP.		3	1	2
	PC38. Adjust the weaving and loom machine controlling and program with the help of tools and software as per requirement.		3	1	2
	PC39. Ensure the molding procedure and process to be adopted for completing the work order from the supervisor by referring the work instruction document / SOP manual.		3	1	2
	PC40. Follow the molding procedure and the work instruction document / SOP manual file method.		3	1	2
	PC41. Ensure that the required material is procured from the store before starting the process.		2.5	0.5	2
	PC42. Ensure the type of looms and weaving required for executing the required operation and ensures that the same is available for operations.		2.5	0.5	2
	PC43. Ensure pouring in line with defined standards and specifications.		2.5	0.5	2
	PC44. Record the feeding observations like interrupted pouring or any abnormality.		2.5	0.5	2
	PC45. Conduct a test process and produce a sample output as per the sketches / engineering drawing shared with the supervisor.		2.5	0.5	2
	PC46. Ensure that the dimensions of the output product are measured as per the process given in the work instructions / SOP.		2.5	0.5	2
	PC47. In case the parts are not as per the given measurements, send the same for further processing in terms of cutting, finishing etc.		2.5	0.5	2
	PC48. Note down the observations of the basic inspection process and Identify pieces which are OK and also not meeting the specified standards.		2.5	0.5	2
	PC49. Discard the batch which are beyond repair and repair the ones which need minor modifications in settings.		2.5	0.5	2
	PC50. Maintain records of each category of work outputs as per the batch etc. so that correction can be organized.		2.5	0.5	2

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC51. Establish linkage between rejection of output and the pertinent causes for the same (process/ material etc.); Recommend the means for rejection control.		2.5	0.5	2
	PC52. Rectify minor defects like dimension variation, thickness variation etc. by control process parameters etc.		2.5	0.5	2
	PC53. Escalate all issues related to change in surface properties, tensile strength etc. so that the manufacturing equipment can be reset to achieve the specified output.		2.5	0.5	2
	PC54. Provide first and last output from each batch to the lab for quality check on its composition, properties etc.		2.5	0.5	2
	PC55. Obtain clearance for the entire batch from the lab.		2.5	0.5	2
	Total		**140**	**35**	**105**
RSC/N4806 (CPC/N1116) Auxiliary equipment used in plastics sack and tape production	PC1. Inspect, monitor, operating fuel systems, fuel oil transfer and supply lines and associated equipment and fossil fuel chillers.	**40**	1.5	0.5	1
	PC2. Operate condensate and feed water systems, circulating and cooling water systems, condensate and makeup systems, Circulating service water treatment equipment, auxiliary lube oil systems, emission control equipment and miscellaneous equipment. Pass onsite training programs. Follow safety rules, regulations and procedures.		1.5	0.5	1
	PC3. Connects basic plant services as needed to meet production requirements and makes initial checks of operating conditions before initiating production runs.		1.5	0.5	1
	PC4. Assist in cleaning and lubrication of equipment and tooling and performs various preventative maintenance tasks as needed.		1.5	0.5	1
	PC5. Study about different types of pre drier-hot air oven, hopper driers, dehumidifiers etc.		1.5	0.5	1
	PC6. Study about chiller, cooling Tower for the controlling temperature of mould, machine and Fluids.		2.5	0.5	2
	PC7. Study the basic operation and monitoring – watching gauges, dials, or other indicators to make sure a machine is working properly.		2.5	0.5	2
	PC8. Study the basic compressor and scrap grinder.		2.5	0.5	2
	PC9. Ensure equipment maintenance -- performing routine maintenance on equipment and determining when and what kind of maintenance is needed.		3	1	2

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC10. Ensure equipment selection -- determining the kind of tools and equipment needed to do a job.		3	1	2
	PC11. Follow the instructions given on the equipment manual describing the operating process of the equipment.		2.5	0.5	2
	PC12. Follow the safety, health and environment related practices developed by the organization.		2.5	0.5	2
	PC13. Ensure relevant safety boards/ signs are placed on the shop floor.		2.5	0.5	2
	PC14. Operate the machine using the recommended personal protective equipment (PPE) and ensure team members also use the related PPEs at the workplace.		2.5	0.5	2
	PC15. Maintain a clean and safe working environment near the work place and ensure there is no spillage of chemicals, production waste, oil, solvents etc.		2.5	0.5	2
	PC16. Attend all safety and fire drills to be self-aware of safety hazards and preventive techniques.		2.5	0.5	2
	PC17. Maintain high standards of personal hygiene at the work place.		2.5	0.5	2
	PC18. Ensure that the waste disposal is done in the designated area and manner as per organization SOP.		1.5	0.5	1
	Total		**40**	**10**	**30**
RSC/N4108 (CPC/N0418) Basic knowledge of communicat-ion / soft skills	PC1. Perform basic computer operations.	**40**	4	1	3
	PC2. Learn about basic functions in a computer.		4	1	3
	PC3. Receive information and instructions accurately from the supervisor / operator and fellow workers, getting clarification where required.		4	1	3
	PC4. Pass on information to authorized persons accurately who require it and within agreed timescale and confirm its receipt.		4	1	3
	PC5. Display helpful behaviour by assisting others in performing tasks in a positive manner, where required and possible.		4	1	3
	PC6. Consult and assist others to maximize the effectiveness and efficiency in carrying out tasks.		4	1	3
	PC7. Display active listening skills while interacting with others at work.		4	1	3
	PC8. Use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism.		4	1	3

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC9. Demonstrate responsible and disciplined behaviours at the workplace.		4	1	3
	PC10. Escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict.		4	1	3
	Total		**40**	**10**	**30**
RSC/N4812 (CPC/N1127) Testing and quality control, conduct quality checks and inspection of the finished products	PC1. Study and understand significance of raw material and product testing.	**50**	1.25	0.25	1
	PC2. Need of quality control of product.		1.25	0.25	1
	PC3. Understand the concept of quality control, conduct quality checks.		1.25	0.25	1
	PC4. Understanding the TQM philosophy.		2.5	0.5	2
	PC5. Understanding the need for quality system.		2.5	0.5	2
	PC6. Study and understand of total quality control tools -ISO, 5S, six sigma, OHSAS 18001 and ASTMD.		2.5	0.5	2
	PC7. Ensure that total range of checks as per the prescribed national and International standards on regular intervals throughout the shifts.		2.5	0.5	2
	PC8. Use appropriate measuring instruments, equipment, tools, accessories etc. as prescribed / required.		2.5	0.5	2
	PC9. Identify non-conformities to quality assurance standards.		2.5	0.5	2
	PC10. Identify potential causes of non-conformities to quality assurance standards.		2.5	0.5	2
	PC11. Identify impact on final product due to non-conformance to prescribed Standards.		2.5	0.5	2
	PC12. Evaluating the need for action to ensure that problems do not reoccur.		2.5	0.5	2
	PC13. Suggest corrective action to address problem.		2.5	0.5	2
	PC14. Review effectiveness of corrective action.		2.5	0.5	2
	PC15. Interpret the results of the quality check correctly.		2.5	0.5	2
	PC16. Take up results of the findings with QC in charge / appropriate authority.		2.5	0.5	2
	PC17. Take up the results of the findings within stipulated time.		2.5	0.5	2
	PC18. Record of results of action taken.		2.5	0.5	2
	PC19. Record adjustments not covered by established procedures for future reference.		2.5	0.5	2
	PC20. Review effectiveness of action taken.		2.5	0.5	2
	PC21. Follow reporting procedures where the cause of defect cannot be identified.		1.25	0.25	1

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC22. Provide first and last output from each batch to the lab for quality check on its composition, contamination and properties etc.		1.25	0.25	1
	PC23. Obtain clearance for the entire batch from the lab.		1.25	0.25	1
	Total		**50**	**10**	**40**
RSC/N4813 (CPC/N1128) behaviour science and entrepreneurship	PC1. Study the principle of behaviour science and entrepreneurship	**40**	1.5	0.5	1
	PC2. Significance of behaviour science and entrepreneurship.		1.5	0.5	1
	PC3. Learn the concept of behaviour science and entrepreneurship.		1.5	0.5	1
	PC4. Plan and Budgeting with reference to various plastic sack and tape for the next process.		1.5	0.5	1
	PC5. Keep books of accounts and various transactions		1.5	0.5	1
	PC6. Arrange for financial assistance from various quarters in the light of various schemes available in setup for plastic sack.		1.5	0.5	1
	PC7. Ascertain the prices of various inputs and products from the market.		2.5	0.5	2
	PC5. Assess the influence of various quality parameters of products / pellets on the product pricing.		2.5	0.5	2
	PC8. Establish cordial relations with various clients for the benefit of industry.		2.5	0.5	2
	PC9. Assess the needs and requirement of the clients and assess one's own unique selling proposition.		2.5	0.5	2
	PC10. Extract critical market information that is otherwise not in the public domain.		2.5	0.5	2
	PC11. Choose appropriate buyer in a given situation of market parameters.		2.5	0.5	2
	PC12. Identify best ways of attracting market price for one's produce.		2.5	0.5	2
	PC13. Ensure quality before and during the sale activity to ensure good returns.		2.5	0.5	2
	PC13. Study and understand of behavioural Science.		2.5	0.5	2
	PC14. Study the different between behavioural science and social science.		2.5	0.5	2
	PC15. Study the categories of behavioural science.		2.5	0.5	2

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC16. Study the theories of behavioural psychology, entrepreneurship development, preparing project report selecting a particular plastic product of their choice and submission.		1.5	0.5	1
	PC17. Analyses environmental setup relating to industry and business.		1.5	0.5	1
	Total		**40**	**10**	**30**
	Grand Total	**600**	**600**	**150**	**450**
	Percentage Weightage:			**25%**	**75%**
	Minimum Pass% to qualify (aggregate):			**70%**	