QUALIFICATION FILE

Assistant Machine Operator - Plastics Recycling

☒ Short Term Training (STT) ☐ Long Term Training (LTT) ☐ Apprenticeship

☐ Upskilling ☐ Dual/Flexi Qualification ☐ For ToT ☐ For ToA

☐ General ☐ Multi-skill (MS) ☐ Cross Sectoral (CS) ☒ Future Skills ☐ OEM

NCrF/NSQF Level: 3

Submitted By:

Central Institute of Petrochemicals Engineering & Technology (CIPET)

Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers, Govt. of India

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Section 1: Basic Details

1.	**Qualification Name**	Assistant Machine Operator - Plastics Recycling (AMO-PR)	
2.	**Sector/s**	**Chemicals & Petrochemicals (CPC)**	
3.	**Type of Qualification: ☐New ☒ Revised ☐ Has Electives/Options ☐OEM**	**NQR Code & version of existing/previous qualification: 2021/CP/CIPET/04615**	**Qualification Name of existing/previous version: Machine Operator Assistant - Plastics Recycling**
4.	**a. OEM Name** **b. Qualification Name** (*Wherever applicable*)	-	
5.	**National Qualification Register (NQR) Code &Version** (*Will be issued after NSQC approval*)	**QG-03-CP-04133-2025-V2-CIPET**	**6. NCrF/NSQF Level: Level 3**
7.	**Award (Certificate/Diploma/Advanced Diploma/ Any Other** *(Wherever applicable specify multiple entry/exits also & provide details in annexure)*	**Certificate**	
8.	**Brief Description of the Qualification**	The machine operator assistant handles the recycling materials, sets up and operates the plastic processing machines, finishes the product & stores in the desired place.	
9.	**Eligibility Criteria for Entry for Student/Trainee/Learner/Employee**	**a. Entry Qualification & Relevant Experience:**	
10.	**Credits Assigned to this Qualification, Subject to Assessment** *(as per National Credit Framework (NCrF))*	16	**Common Cost Norm Category (I/II/III)** *(wherever applicable)*: **I**
11.	**Any Licensing requirements for Undertaking Training on This Qualification** *(wherever applicable)*	-	

S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)
1.	Grade 10 pass	No Experience required
2.	Grade 8 pass with two year of (NTC/ NAC) after 8th	No Experience required
3.	9th Grade pass	1.5 year relevant experience
4.	8th grade pass	3 years relevant experience

<table>
<tr><td>12.</td><td>Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)</td><td colspan="2">☒Offline ☐Online ☐Blended
<table>
<tr><th>Training Delivery Modes</th><th>Theory (Hours)</th><th>Practical (Hours)</th><th>OJT Mandatory (Hours)</th><th>OJT Recommended (Hours)</th><th>Total (Hours)</th></tr>
<tr><td>Classroom (offline)</td><td>150</td><td>300</td><td>30</td><td>-</td><td>480</td></tr>
<tr><td>Online</td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
(Refer Blended Learning Annexure for details)</td></tr>
<tr><td>13.</td><td>Aligned to NCO/ISCO Code/s (if no code is available mention the same)</td><td colspan="2">NCO-2015/9611</td></tr>
<tr><td>14.</td><td>Progression path after attaining the qualification (Please show Professional and Academic progression)</td><td colspan="2">Machine Operator in Plastics Recycling and Waste Management Industry</td></tr>
<tr><td>15.</td><td>Other Indian languages in which the Qualification & Model Curriculum are being submitted</td><td colspan="2">Hindi</td></tr>
<tr><td>16.</td><td>Is similar Qualification(s) available on NQR-if yes, justification for this qualification</td><td colspan="2">☐ Yes ☒ No URLs of similar Qualifications:</td></tr>
<tr><td>17.</td><td>Is the Job Role Amenable to Persons with Disability</td><td colspan="2">☐ Yes ☒ No
If “Yes”, specify applicable type of Disability:</td></tr>
<tr><td>18.</td><td>How Participation of Women will be Encouraged</td><td colspan="2">During selection of candidates for the training programme, Female candidates are given preference</td></tr>
<tr><td>19.</td><td>Are Greening/ Environment Sustainability Aspects Covered (Specify the NOS/Module which covers it)</td><td colspan="2">☐ Yes ☒ No</td></tr>
<tr><td>20.</td><td>Is Qualification Suitable to be Offered in Schools/Colleges</td><td colspan="2">Schools ☐ Yes ☒ No Colleges ☒ Yes ☐ No</td></tr>
<tr><td>21.</td><td>Name and Contact Details of Submitting / Awarding Body SPOC
(In case of CS or MS, provide details of both Lead AB & Supporting ABs)</td><td colspan="2">Name: Arunav Banerjee
Email: cipethovtc@cipet.gov.in Contact No.: 9402183512
Website: www.cipet.gov.in</td></tr>
<tr><td>22.</td><td>Final Approval Date by NSQC: 26.05.2025</td><td>23. Validity Duration: 3 Years</td><td>24. Next Review Date: 25.05.2028</td></tr>
</table>

Section 2: Module Summary

NOS/s of Qualifications

(In exceptional cases these could be described as components)

Mandatory NOS/s: 06

Specify the training duration and assessment criteria at NOS/ Module level. For further details refer to the curriculum document.

***Th.**-Theory **Pr.**-Practical **OJT**-On the Job **Man.**-Mandatory Training **Rec.**-Recommended **Proj.**-Project*

S. No	NOS/Module Name	NOS/Module Code & Version *(if applicable)*	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) *(if applicable)*
1.	Understand basic concepts, job requirements & basics knowhow related to process.	CPC/N2911 & V2.0	**Core**	3	3	20	70	-	-	**90**	32	80	-	-	**112**	-
2.	Assist in performing the Plastics Recycling related operations, monitor process parameters and troubleshoot the process/material if any under the guidance of Operator.	CPC/N2912 & V2.0	**Core**	3	7	60	150	-	-	**210**	25	105	-	-	**130**	-
3.	To conduct basic quality checks of finished products with reference to approved products.	CPC/N2913 & V2.0	**Core**	3	2	20	40	-	-	**60**	15	61	-	-	**76**	-
4.	To maintain basic health & safety practices at the workplace, 5S.	CPC/N0411 & V2.0	Non-Core	3	1	10	20	-	-	**30**	10	30	-	-	**40**	-
5.	Basics of MS Office / Open Source office suite software	CPC/N0219 & V2.0	Non-Core	3	1	10	20	-	-	**30**	8	14	-	-	**22**	
6.	Employability Skills	DGT/VSQ/N0101 & V1.0	Non-Core	3	1	30	-	-	-	**30**	10	10	-	-	**20**	-
7.	On the Job Training (OJT)	N/A	**Core**	3	1	-	-	30	-	30	-	-	-	-	-	-
Duration (in Hours) / Total Marks			-	-	**16**	**150**	**300**	**30**	**-**	**480**	**100**	**300**	-	-	**400**	-

Elective NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version *(if applicable)*	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) *(if applicable)*
1.																
2.																
3.																
Duration (in Hours) / Total Marks																

Optional NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version *(if applicable)*	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) *(if applicable)*
1.																
2.																
Duration (in Hours) / Total Marks																

Assessment - Minimum Qualifying Percentage

*Please specify **any one** of the following:*

Minimum Pass Percentage – Aggregate at qualification level:
50% for theory and 70% for practical *(Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)*

Minimum Pass Percentage – NOS/Module-wise:

(Every Trainee should score a specified minimum passing percentage in each mandatory and selected elective NOS/Module to successfully clear the assessment.)

Section 3: Training Related

1.	**Trainer's Qualification and experience in the relevant sector (in years)** *(as per NCVET guidelines)*	Diploma with minimum 2 years experience in field of Plastics / Polymer Engineering / Technology
2.	**Master Trainer's Qualification and experience in the relevant sector (in years)** *(as per NCVET guidelines)*	B.E. / B.Tech. / M.Sc. with 2 years experience in the field of Plastics / Polymer Engineering / Science
3.	**Tools and Equipment Required for Training**	☒Yes ☐No (*If "Yes", details to be provided in Annexure)*
4.	**In Case of Revised Qualification, Details of Any Upskilling Required for Trainer**	Nil

Section 4: Assessment Related

1.	**Assessor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	Diploma with minimum 5 years experience in the field of Plastics / Polymer Engineering / Technology Or B.E. / B.Tech. with minimum 2 years experience in the field of Plastics / Polymer Engineering / Technology
2.	**Proctor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	Diploma with minimum 6 years experience in the field of Plastics / Polymer Engineering / Technology Or B.E. / B.Tech. with minimum 3 years experience in the field of Plastics / Polymer Engineering / Technology
3.	**Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	B.E. / B.Tech. with minimum 4 years experience in the field of Plastics / Polymer Engineering / Technology Or M.E. / M.Tech. with minimum 2 years experience in the field of Plastics / Polymer Engineering / Technology
4.	**Assessment Mode** *(Specify the assessment mode)*	Physical Assessment
5.	**Tools and Equipment Required for Assessment**	☒ Same as for training ☐ Yes ☐ No *(details to be provided in Annexure-if it is different for Assessment)*

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	**Latest Skill Gap Study (not older than 2 years) (Yes/No): NO**
2.	**Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): NO**
3.	**Government /Industry initiatives/ requirement (Yes/No): YES**
4.	**Number of Industry validation provided: 06 Nos.**
5.	**Estimated nos. of persons to be trained and employed: 500 Candidates**
6.	**Evidence of Concurrence/Consultation with Line Ministry/State Departments: YES** If "No", why:

Section 6: Annexure & Supporting Documents Checklist

Specify Annexure Name / Supporting document file name

1.	**Annexure:** NCrF/NSQF level justification based on NCrF level/NSQF descriptors *(Mandatory)*	• Entry Qualification for this course is Grade 10 pass Or Grade 8 pass with two year of (NTC/ NAC) after 8th Or 9th Grade Pass with 1.5 year relevant experience Or 8th Grade Pass with 3 years relevant experience • After successful completion of training, Trainee / Candidate is eligible for Shift Incharge/ Supervisor in Plastics Processing Industry. • Job description: The machine operator assistant handles the recycling materials, sets up and operates the plastic processing machines, finishes the product & stores in the desired place.
2.	**Annexure:** List of tools and equipment relevant for qualification *(Mandatory, except in case of online course)*	**Equipment Required:** **Classroom equipment:** LCD Projector/Screen, Computer, charts, Black / White board & Duster. **Measuring equipment:** Steel Ruler, Micrometer, Vernier Calliper, Radius gauge, Feeler gage, Steel measuring tape, Weighing Balance (1 No.) **Hand Tools:** Hammer, screwdriver set with Multiple heads, Allen key hexagonal , File triangular, Hacksaw, adjustable, Spanner set double side, Adjustable spanner **Personal Protective equipment:** Safety Goggles, Rubber Gloves, Asbestos gloves, Fire Extinguisher, Apron, Helmet, First Aid Box with Medicines. **Plastics raw material:** PP, HDPE, etc., for training on machines of injection, Blow and Extrusion grade. **Mould**: Hand mould, Two plate moulds, Blow Mould and Extrusion Die. **Equipment & Auxiliaries equipment**: Sorting & Separation Equipment for Plastic Waste Management System Automatic Inline Washing & Size Reduction Machinery Inline Single Screw Two Stage Extruder Cutter Compactor Plant with Water Die Face Cutter Effluent Treatment Plant (ETP), Pyrolysis Plant Organic based Fully Automatic Composting Machine Automatic Hopper Loader, Hot air oven and Dryer, Scrap Grinder, Hot air blow Gun, Water cooling Tower, Agglomerators /Spin Drier/ Silo With Drier

3.	**Annexure:** Detailed Assessment Criteria *(Mandatory)*	1. Criteria for assessment for each Qualification Document are being created by CIPET. 2. Each Assessable outcome (AO) will be assigned marks proportional to its importance in Learning Outcome and few performance criteria may be allotted marks in combine. 3. Each Learning outcome will be assessed both for theoretical knowledge and practical knowledge which is being proportionately demonstrated in the table below. 4. The assessment for the theory part will be based on a knowledge bank of questions created by CIPET which will contain multiple choice theory questions and a Practical question database with mark allotment criteria. 5. To pass the Qualification Document, every trainee should score a minimum of 50 % in Functional and all Generic Learning Outcomes. 6. In case of successfully passing only a certain number of Learning Outcomes, the trainee is eligible to take Subsequent assessment on the balance Learning Outcomes to pass the Qualification Document.
4.	**Annexure:** Assessment Strategy *(Mandatory)*	**Assessment strategy:** ● Assessment criteria for Qualification Document have been developed. Each Learning outcome has separate marks for Theory and Practical Skills. ● The Training Assessment Wing will have assessors who will not be associated with training activities and will be provided training on the said work. Thus it will ensure that the assessment carried out is fair and consistent. ● Set of question banks developed to assess theoretical and practical knowledge. To ensure the quality, each trainee gets a unique set of questions. ● Trainees have to score minimum marks separately for theoretical and practical skill and overall percentage should also be 50% for theory and 70% for practical. ● Empanelment of subject matter expert as assessor to assess trainees specifically on practical skills. ● Assessments are preferably conducted by written examination papers in English/ regional languages according to the requirement. ● It has to be ensured that TP/trainer should not be present during assessment.
5.	**Annexure:** Blended Learning *(Mandatory, in case selected Mode of delivery is "Blended Learning")*	-
6.	**Annexure:** Multiple Entry-Exit Details *(Mandatory, in case qualification has multiple Entry-Exit)*	-
7.	**Annexure:** Acronym and Glossary *(Optional)*	-
8.	**Supporting Document:** Model Curriculum *(Mandatory – Public view)*	*Enclosed as Annexure-I*
9.	**Supporting Document:** Career Progression *(Mandatory - Public view)*	*Enclosed as Annexure-II*
10.	**Supporting Document:** Occupational Map *(Mandatory)*	*Enclosed as Annexure-III*
11.	**Supporting Document:** Assessment SOP *(Mandatory)*	*Enclosed as Annexure-IV*
12.	**Any other document you wish to submit:**	*Enclosed as Annexure-V*

Annexure: Evidence of Level

NCrF/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrF/NSQF level descriptor	NCrF/NSQF Level
Professional Theoretical Knowledge/Process	Machine Operator Assistant-Plastics Recycling is expected to ensure housekeeping and safety in the recycling area and select the correct die, etc he/she has to ● To interact with the operator in order to understand the production schedule ● To help in planning the day's production activities based on the operator's instructions ● To ensure availability of consumables and waste plastics materials for production in sufficient quantity as per production plan/operators instructions. ● Clearly understanding the does and don'ts of the manufacturing process as defined in SOPs/ Work Instructions or defined by operator. ● Check availability of the personal protective equipment (PPE) like Gloves, Goggles etc. ● Understand the plastics recycling procedure and process to be adopted for completing the work order from the operator by referring to the Work Instruction document/ SOP manual. ● Add the raw material in the machine using a material loader or by manual feeding. ● Ensure cleaning of the other auxiliaries tools, (if any) before the initiation of the moulding and trimming process ● Ensure cleaning of the area around the apparatus for any oil, grease, combustible substances etc. so as to prevent any accident ● Ensure availability of the water and working of valves to circulate the water in cooling trough to cool and solidify plastic ● Understand the raw material like plastics granules, fillers, bonding additives etc. required for executing the activity ● Refer the queries to supervisor if they cannot be resolved by the operator ● Confirm self - understanding to the operator once the query is resolved so that all doubts & queries can be resolved before the actual process execution	Machine Operator Assistant-Plastics Recycling job requires a limited range of activities which are routine and predictable like availability of consumables, safety PPE, raw material used, basic machine parts and its functions etc. He should understand the raw material like plastics, their type, granules sizes, fillers, bonding additives etc. required for executing the activity.	3
Professional and Technical Skills/ Expertise/ Professional Knowledge	The user/individual on the job needs to know and understand: ● General principles of Recycling procedure and process knowledge machine functioning parts concepts. ● Types of plastics like thermoplastics and the additives & grades to be used temperature, pressure etc. of the machine being operated. ● Different types of tools and machinery to process the plastic and pelletize the output Hazards and safety aspects involved in recycling production	Machine Operator Assistant-Plastics Recycling should understand and know basic facts about the process, principle of recycling extrusion, working of other machine parts like cooling trough, cutter etc.	3

Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	The user/individual on the job needs to know and understand: ● General principles of plastics recycling extruder- procedure and process knowledge, etc. ● Types of plastics like thermoplastics and the additives & grades to be used and capacity of the machine being operated. ● Various types of cooling systems and their properties. ● How to perform recycling extruder machine safety check ● Hazards and safety aspects involved in strand production and usage of relevant PPEs ● Safety procedures to be adopted to complete mould removal process ● Detect problems in day to day tasks: ○ Support operator in using specific problem solving techniques and detailing out the problems ● Discuss possible solutions with the operator for problem solving. ● The user/individual on the job needs to know and understand how to: ● Plan and organize the work order and jobs received from the internal customers/ operator. ● Organize all process/ equipment manuals so that sorting out ● The user/individual on the job needs to know and understand how to: ● Follow instructions and work on areas of improvement identified ● Complete the assigned tasks with minimum supervision ● Complete the job defined by the operator within the timelines and quality. ● The user/individual on the job needs to know and understand how to: ● Use common sense and make judgments during day to day basis ● Use basic reasoning skills to identify and resolve basic problems Use intuition to detect any potential problems which could arise during operations.	Machine Operator Assistant-Plastics Recycling should recall general principles of recycling extruder procedure and process knowledge, Types of plastics like thermoplastics and the additives & grades to be used etc. Thus he should demonstrate practical skill, routine and repetitiveness in plastics recycling application/ process.	3
Broad Learning Outcomes/Core Skill	The user/ individual on the job needs to know and understand how to: ● How to be able to read warnings, instructions and other text material on product labels, components etc. ● How to enter into the history card details of the fault identified in the plastic product manufactured read equipment manuals and process documents to understand the equipment and processes better ts. ● Read instructions especially safety instructions especially symbols while using the equipment in the plant area logs. ● The user/individual on the job needs to know and understand how to: ● Discuss task lists, schedules, and work-loads with co-workers ● Question internal customers/ Shop floor operators appropriately in order to understand the nature of the problem and make a diagnosis. ● Avoid using jargon, slang or acronyms when communicating with an operator /fellow subordinates etc. Unless it is required.	Machine Operator Assistant-Plastics Recycling should be able to read warnings, instructions and other text material on raw material, their identification techniques, etc. with minimum required clarity, should have skill of basic arithmetic, like raw material weights, additions etc.	3

Responsibility	Machine Operator Assistant-Plastics Recycling is majorly responsible for his own job and self-learning. He/she Set up basic machine controls and operate Plastics Recycling Machine including extruder and other machine parts in order to produce good quality plastic materials/granules from waste plastics as per approved specifications by operator.	Machine Operator Assistant-Plastics Recycling is majorly responsible for his own job and self-learning within defined limits like running of machine once set by operator etc, which justifies the pegging of the QP at Level 3.	3

Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: Maximum 50 candidates per batch

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1.	Measuring equipments	Steel Ruler, Micrometer, Vernier Caliper, Radius gauge, Feeler gage, Steel measuring tape, Weighing Balance	As per requirement
2.	Hand Tools	Hammer, screwdriver set with Multiple heads, Allen key hexagonal , File triangular, Hacksaw, adjustable, Spanner set double side, Adjustable spanner	As per requirement
3.	Personal Protective equipments	Safety Goggles, Rubber Gloves, Asbestos gloves, Fire Extinguisher, Apron, Helmet, First Aid Box with Medicines	As per requirement
4.	Plastics raw material	Wastage of Plastics Material require for recycling the Plastics	As per requirement
5.	Mould	Hand mould, Two plate mould, Blow Mould and Extrusion Die	As per requirement
6.	Auxiliaries equipments	Automatic Hopper Loader, Hot air oven and Dryer, Scrap Grinder, Hydraulic Trainer, Pneumatic Trainer, Hot air blow Gun, Water cooling Tower, Water Chilling Plant	As per requirement
7.	Single screw-	Mechanical Recycling Plant	As per requirement
8.	Twin screw	Mechanical Recycling Plant	As per requirement

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. LCD Projector/Screen,
2. Computer
3. Charts
4. White board & Marker pen

Annexure: Industry Validations Summary

Provide the summary information of all the industry validations in table. This is not required for OEM qualifications.

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile *(if available)*
1.	Arven Technomers Pvt. Ltd.,	Mr. Rohith Narayanaswamy	Director	#38-B3, Pilagumpa KIADB Industrial Estate, Chokkanahalli, Hoskote, bangalore Rural – 562 114	9880171442	info@arven.biz	-
2.	Saahas Waste Management Pvt. Ltd.,	Mr. Shobha Rahavan	CEO/Director	32, 5th B Cross, MCHS Colony, 16th Main BTM Layout Stage 2, Bengaluru Urban – 560 076	9886729135	shobha@saahaszerowaste.com	-
3.	J P Polymer	Mr. Mohit Kumar	Quality Manager	Corp. Near HP Petrol Pump, Sirsa Chowk, Dalan, Katihar - 854105	9456804229	Mohitkr_102@gmail.com	-
4.	Sumit Agro Polytube	Mr. Vinit Bimal	Proprietro	Growth Centre, Biada, Maranga, Purnea – 854301, Bihar	9631774776	omshaktipipes@gmail.com	-
5.	Om Polymers	Mr. Amit Aman	Partner	Purnea – 854301, Bihar	9934707076	Amitaman4you@gmail.com	-
6.	SKC Poly Engineering Pvt. Ltd.,	Mr. Rajendra R. Chaudhari	Director	Plot No. A-41 & A-42/01, MIDC Area, Shendra, Chh. Sambhajinagar, Aurangabad – 431007, Maharashtra	9822202071	skcpoly@gmail.com	-

Annexure: Training & Employment Details

Training and Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities
2024-25	500	400	50	40	-	-
2025-26	600	480	60	48	-	-
2026-27	700	560	70	57	-	-

Data to be provided year-wise for next 3 years

Training, Assessment, Certification, and Placement Data for previous versions of qualifications:

Qualification Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed
1.0	2021-22	16	16	16	13	0	0	0	0	-	-	-	-
1.0	2022-23	67	67	67	54	12	12	12	10	-	-	-	-
1.0	2023-24	37	37	37	30	0	0	0	0	-	-	-	-

Applicable for revised qualifications only, data to be provided year-wise for past 3 years.

List Schemes in which the previous version of Qualification was implemented:

1. **CSR Scheme**

Content availability for previous versions of qualifications:

☒ Participant Handbook ☒ Facilitator Guide ☒ Digital Content ☒ Qualification Handbook ☐ Any Other:

Languages in which Content is available: English & Hindi

Annexure: Blended Learning

Blended Learning Estimated Ratio & Recommended Tools:

Refer NCVET "Guidelines for Blended Learning for Vocational Education, Training & Skilling" available on:
https://ncvet.gov.in/sites/default/files/Guidelines%20for%20Blended%20Learning%20for%20Vocational%20Education,%20Training%20&%20Skilling.pdf

S. No.	Select the Components of the Qualification	List Recommended Tools – for all Selected Components	Offline : Online Ratio
1	Theory/ Lectures - Imparting theoretical and conceptual knowledge		
2	Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners		
3	Showing Practical Demonstrations to the learners		
4	Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training		
5	Tutorials/ Assignments/ Drill/ Practice		
6	Proctored Monitoring/ Assessment/ Evaluation/ Examinations		
7	On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training		

Annexure: Detailed Assessment Criteria

Detailed assessment criteria for each NOS/Module are as follows:

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
1. CPC/N 2911: Understand basic concepts, job requirements & basics knowhow related to process.	AO1. To interact with the operator in order to understand the production schedule.	1	6		
	AO2. To help in planning the day's production activities based on the operator's instructions.	1	6		
	AO3. To ensure availability of consumables and plastics materials for production in sufficient quantity as per production plan/operators instructions.	1	7		
	AO4. Clearly understanding the does and don'ts of the manufacturing process as defined in SOPs/ Work Instructions or defined by operator.	1	7		
	AO5.Check availability of the personal protective equipment's (PPE) like Gloves, Goggles etc.	1	7		
	AO6. Understand the molding procedure and process to be adopted for completing the work order from the operator by referring to the Work Instruction document/ SOP manual.	1	7		
	AO7. Ensure that the required plastics waste material is procured from the store before starting the process.	1	7		
	AO8. Understand the Die and pelletizer etc. required for executing the required operation and ensure that the same is available for operation.	1	7		
	AO9. If Die is not available collect the Die from the tool room.	1	7		
	AO10. If Die is not available collect the Die from the tool room.	1	7		
	AO11. If Die is not available collect the Die from the tool room.	1	7		
	AO12. Ensure Die is clean if not clean with soft cotton cloth.	2	6		
	AO13. Ensure cleaning of the other auxiliaries tools, (if any) before the initiation of the recycling and pelletizing process.	1.5	6		
	AO14. Ensure cleaning of the other auxiliaries tools, (if any) before the initiation of the recycling and pelletizing process.	1.5	6		
	AO15. Ensure availability of the coolant and working of valves to circulate the coolant to cool and solidify plastic filaments for pelletizing.	1	6		
	AO16. Understand the plastics waste material like dust, moisture etc. required for executing the activity.	1	6		
	AO17. Refer the queries to the supervisor if they cannot be resolved by the operator.	1.5	6		
	AO 18. Confirm self - understanding to the operator once the query is resolved so that all doubts & queries can be resolved before the actual process execution.	1.5	6		
	Total Marks	**32**	**80**		
2. CPC/N 2912: Assist in performing the Plastics Recycling related	AO1. Check for operation of recycling apparatus like hoppers, heaters etc. as per the checklist provided.	1.5	7		
	AO2. Fix the desired Die to the recycling machine in order to achieve the desired operation as per the Work Instructions/ SOPs.	1.5	7		

operations, monitor process parameters and troubleshoot the process/material if any under the guidance of Operator	AO3. 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 as guided by the Operator.	1.5	7		
	AO4. Perform preheating of grinded plastic waste. (In case of Engineering plastics)	1.5	7		
	AO5. Ensure that the grinded plastic waste is mixed with additives (if any) before being fed into the hopper.	2	7		
	AO6. Conduct a test process and produce a sample output as per the required.	2	7		
	AO7. Ensure that the dimensions of the output product are measured as per the process given in the Work Instructions/ SOP under guidance of the operator.	2	7		
	AO8. Start the production process as instructed by the Operator.	2	7		
	AO9. Feed the required operation code in the apparatus for heaters to melt the grinded plastic waste at the predefined temperature.	2	7		
	AO10. Run the machine in Semi-Auto or Automatic mode of operation as guided by the operator.	2	7		
	AO11. Check-list procedure to ensure quality of final product.	2	7		
	Total Marks	**25**	**105**		
3. CPC/N 2913: To conduct basic quality check of finished product with reference to approved product.	AO1. Compare colour, specific gravity, melt properties etc. with the given approved materials.	3	8		
	AO2. Rectify minor defects like pellet size variation, colour variation etc. by control process parameters etc. and informing operator.	5	20		
	AO3. Provide first and last output from each batch to the lab for quality check on its composition, properties etc.	5	20		
	AO4. Obtain clearance for the entire batch from the lab and submit the operator.	2	10		
	Total Marks	**15**	**61**		
4. CPC/N 0411: Maintain basic health and safety practices at the workplace, 5S.	AO1. Wear protective clothing/equipment for specific tasks and work conditions.	0.5	2		
	AO2. Carry out safe working practices while dealing with hazards to ensure the safety of self and others.	0.5	2		
	AO3. Apply good housekeeping practices at all times.	0.5	2		
	AO4. Use the various appropriate fire extinguishers on different types of fires correctly.	0.5	2		
	AO5. Demonstrate rescue techniques applied during fire hazard, demonstrate good housekeeping in order to prevent fire hazards, demonstrate the correct use of a fire extinguisher.	0.5	2		
	AO6. 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.	0.5	2		
	AO7. 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.	0.5	2		
	AO8. Create awareness amongst others by sharing information on the identified risks.	0.5	2		

	AO9. Follow the sorting process and check that the tools, fixtures & jigs that are lying on workstations are the ones in use and un- necessary items are not cluttering the workbenches or work surfaces.	0.5	2		
	AO10. Ensure segregation of waste in hazardous/ non Hazardous waste as per the sorting work instructions.	0.5	2		
	AO11. Follow the technique of waste disposal and waste storage in the proper bins as per SOP.	0.5	1		
	AO12. Segregate the items which are labeled as red tag items for the process area and keep them in the correct places.	0.5	1		
	AO13. Sort the tools/ equipment/ fasteners/ spare parts as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5S guidelines/ work instructions.	0.5	1		
	AO14. Ensure that areas of material storage areas are not overflowing. AO15. 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.	0.5	1		
	AO16. Return the extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area.	0.5	1		
	AO17. Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards.	0.5	1		
	AO18. Follow the proper labeling mechanism of instruments/ boxes/ containers and maintain reference files/ documents with the codes and the lists.	0.5	1		
	AO19. Check that the items in the respective areas have been identified as broken or damaged	0.5	1		
	AO20. Follow the given instructions and check for leveling of fluids, oils, lubricants, solvents, chemicals etc. and proper storage of the same To avoid spillage, leakage, fire etc.	0.5	1		
	AO21. Make sure that all material and tools are stored in the designated places and in the manner indicated in the 5S instructions.	0.5	1		
	Total Marks	**10**	**30**		
5. CPC/N 2916: Basics of MS Office / Open Source office suite software	AO1. Fill and process mandated forms for receiving, processing, or tracking data enter data from source documents (such as trial report, process sheet etc.) into Computer applications having MS OFFICE software.	1	2		
	AO2. Scan source documents in accordance with specific instructions.	1	2		
	AO3. Verify data entered with source documents, checks for compliance and corrects all typographical errors and missing or repeated data.	1	2		
	AO4. Maintain files of source documents or other information related to data entered.	1	2		
	AO5. Investigate and confirm data that is unclear before entering, generate reports of data entry, store Completed work in designated locations and perform backup operations.	1	2		
	AO6. Update database information to reflect most current source information.	1	1		
	AO7. Assist in the filing and storage of security and back up data files.	1	2		
	AO8. Respond to requests for information and access relevant files.	1	1		
	Total Marks	**8**	**14**		

6. DGT/VSQ/N0101 Employability Skills	AO1. Discuss the importance of Employability Skills in meeting the job requirements.	1	1		
	AO2. Use appropriate basic English sentences/phrases while speaking, Demonstrate how to communicate in a well -mannered way with others & working with others in a team.	1	1		
	AO3. Discuss the significance of using financial products and services safely and securely. Explain the importance of managing expenses, income, and savings & Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws.	2	2		
	AO4. Discuss the significance of using the internet for browsing, accessing social media platforms, safely and securely.	1	1		
	AO5. Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges.	2	2		
	AO6. Differentiate between types of customers & Explain the significance of identifying customer needs and addressing them.	2	2		
	AO7. Create biodata, use various sources to search and apply for jobs & Discuss the significance of dressing up neatly and maintaining hygiene for an interview.	1	1		
	Sub total	**10**	**10**		
Grand Total		**100**	**300**		

Annexure: Assessment Strategy

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

Mention the detailed assessment strategy in the provided template.

1. Assessment System Overview:
   - Batches are assigned to Training Assessment Wing (TAW), CIPET HO for planning of assessment
   - Training Centers request TAW for Assessment and Certification of Trainees
   - TAW identifies suitable assessor and nominates the assessor to the respective Training Centre
   - TAW monitors the assessment process
   - Training Centers maintain necessary records
2. Testing Environment:
   - Check the Assessment location, date and time
   - If the batch size is more than 30, then there should be 2 Assessors or 1 Assessor for 2 days.
   - Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.
3. Assessment Quality Assurance levels/Framework:
   - Question bank is created by the Subject Matter Experts (SME) are verified by the other SME
   - Questions are mapped to the specified assessment criteria
   - Assessor must be ToA certified & trainer must be ToT Certified
4. Types of evidence or evidence-gathering protocol:
   - Time-stamped & geotagged reporting of the assessor from assessment location
   - Centre photographs with signboards and scheme specific branding
5. Method of verification or validation:
   - Surprise visit to the assessment location
   - Method for assessment documentation, archiving, and access
   - Hard copies of the documents are stored

On the Job:

1. Each module (which covers the job profile of Automotive Service Assistant Technician) will be assessed separately.
2. The candidate must score 60% in each module to successfully complete the OJT.
3. Tools of Assessment that will be used for assessing whether the candidate is having desired skills and etiquette of dealing with customers, understanding needs & requirements, assessing the customer and perform Soft Skills effectively:
   - Videos of Trainees during OJT
4. Assessment of each Module will ensure that the candidate is able to:
   - Effective engagement with the customers
   - Understand the working of various tools and equipment

Annexure: Acronym and Glossary

Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework
OJT	On the Job Training

Glossary

Term	Description
National Occupational Standards (NOS)	NOS defines the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities on the basis of their main economic function, product, service or technology.
Long Term Training	Long-term skilling means any vocational training program undertaken for a year and above. https://ncvet.gov.in/sites/default/files/NCVET.pdf