QUALIFICATION FILE

Machine Operator - Blow Moulding

☒ 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: 3.5

Submitted By:

Central Institute of Petrochemicals Engineering & Technology (CIPET)
Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers, Govt. of India
CIPET Head office, T.V.K Industrial Estate, Guindy, Chennai – 600 032.

Table of Contents

Section 1: Basic Details

1.	**Qualification Name**	**Machine Operator-Blow Moulding (MO-BM)**	
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/04624**	**Qualification Name of existing/previous version: Machine Operator-Blow Moulding (MO-BM)**
4.	**a. OEM Name** **b. Qualification Name** (*Wherever applicable*)	-	
5.	**National Qualification Register (NQR) Code &Version** (*Will be issued after NSQC approval*)	**QG-3.5-CP-04118-2025-V2-CIPET**	**6. NCrF/NSQF Level: 3.5**
7.	**Award (Certificate/Diploma/Advance Diploma/ Any Other** *(Wherever applicable specify multiple entry/exits also & provide details in annexure)*	Certificate	
8.	**Brief Description of the Qualification**	The Machine operator handles the plastic granules (raw material), set up and operates the plastic Blow Moulding machines, finishes the product & stores in 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))*	20	**11. Common Cost Norm Category (I/II/III)** *(wherever applicable)*: **I**
12.	**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.	11th Standard	-
2.	10th or Equivalent	1.5 years relevant Experience
3.	8th grade pass	4.5 years relevant Experience
4.	Previous relevant NSQF Level 3 Achieved	1.5 years relevant Experience

<table>
<tr><td>13.</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>Emp Skill (Hours)</th><th>Total (Hours)</th></tr>
<tr><td>Classroom (offline)</td><td>180</td><td>360</td><td>30</td><td>30</td><td>600</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>14.</td><td>Aligned to NCO/ISCO Code/s (if no code is available mention the same)</td><td colspan="2">NCO-2015/8142.0700</td></tr>
<tr><td>15.</td><td>Progression path after attaining the qualification (Please show Professional and Academic progression)</td><td colspan="2">Shift Incharge/ Supervisor in Blow Moulding Industry</td></tr>
<tr><td>16.</td><td>Other Indian languages in which the Qualification & Model Curriculum are being submitted</td><td colspan="2">Hindi</td></tr>
<tr><td>17.</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>18.</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>19.</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>20.</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>21.</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>22.</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 Mr. Arunav Banerjee
Email: cipethovtc@cipet.gov.in Contact No.: 9402183512
Website: www.cipet.gov.in</td></tr>
<tr><td>23.</td><td>Final Approval Date by NSQC: 26.05.2025</td><td>24. Validity Duration: 3 Years</td><td>25. 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:

Specify the training duration and assessment criteria at NOS/ Module level. For further details refer 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.	Maintain basic health and safety practices at the workplace, 5S.	CPC/N 0411 & V2.0	Core	3.5	1	10	20			30	10	30	-	-	40	
2.	Basics of Plastics Processing methods	CPC/N 0414 & V2.0	Core	3.5	3	30	60			90	15	30	-	-	45	
3.	Auxiliary equipments in Plastics processing.	CPC/N 0416 & V2.0	Core	3.5	2	20	40			60	20	30	-	-	50	
4.	Basic Knowledge of Communication/soft skills.	CPC/N 0418 & V2.0	Core	3.5	1	10	20			30	10	30	-	-	40	
5.	Advanced method for Fitting Tools Measuring Equipments & Practice.	CPC/N 0420 & V2.0	Core	3.5	2	20	40			60	30	60	-	-	90	
6.	Introduction to test method for Polymers & Thermoplastics Materials.	CPC/N 0421 & V2.0	Core	3.5	2	20	40			60	15	30	-	-	45	
7.	Advanced Blow Moulding Techniques for Plastics processing and inspection of the finished products.	CPC/N 0423 & V2.0	Core	3.5	3	30	60			90	60	100	-	-	160	
8.	Advanced Mould Technology Techniques for Plastics Processing	CPC/N 0425 & V2.0	Core	3.5	3	30	60			90	20	50	-	-	70	
9.	Quality Management systems	CPC/N 0427 & V2.0	Core	3.5	1	10	20			30	10	30	-	-	40	
10.	Employability Skill	DGT/VSQ/NO/ 101 & V1.0	Non-Core	3.5	1	30				30	10	10	-	-	20	
11.	On Job Training (OJT)	N/A	Core	3.5	1	0	0	30		30						
Duration (in Hours) / Total Marks			-	-	**20**	**210**	**360**	**30**	**0**	**600**	**200**	**400**	**0**	**0**	**600**	

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.																
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 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 / Post Diploma / Under Graduate (Engineering with minimum 3 years experience).
2.	**Master Trainer's Qualification and experience in the relevant sector (in years)** *(as per NCVET guidelines)*	UG / PG (Engineering) with minimum 5 years experience.
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)*	Degree in Engineering with minimum 4 years' experience.
2.	**Proctor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	UG / PG (Engineering) in with minimum 6 years' experience.
3.	**Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	UG / PG (Engineering) in with minimum 7 years' experience.
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):** Yes
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:** 05
5.	**Estimated nos. of persons to be trained and employed:** 1500 Candidates
6.	**Evidence of Concurrence/Consultation with Line Ministry/State Departments:** *Yes* If "No", why:

Section 6: Annexure & Supporting Documents Check List

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 11th Standard or 10th or equivalent with 1.5 years relevant experience or Grade 8 pass with 4.5 years relevant experience or Previous NSQF level 3 with 1.5 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 handles the plastic granules (raw material), set up and operates the Plastics Blow Moulding machines, finishes the product & stores in desired place.
2.	**Annexure:** List of tools and equipment relevant for qualification *(Mandatory, except in case of online course)*	**Class Room 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, screw driver 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, Blow moulding grade. **Mould**: Hand mould, Blow Mould **Auxiliary equipment:** Automatic Hopper Loader, Hot air oven and Dryer, Dehumidifier, Mould Temperature Controller, Scrap Grinder, Crane, Air Compressor, Hot air blow Gun, Water cooling Tower, Chiller.

		Equipment: Hand Operated Blow Moulding M/C with accessories, Semi-Automatic Extrusion Blow Moulding Machine, Fully Automatic Extrusion Blow Moulding Machine, Semi-Automatic Single Stage Blow Moulding machine/ Semi-Automatic double stage Blow Moulding Machine/ Injection Stretch Blow Moulding Machine.
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 which is being proportionately demonstrated in the table below. 4. The assessment for the theory part will be based on knowledge bank of questions created by CIPET which will contain multiple choice theory questions and 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 Outcome's. 6. In case of successfully passing only certain number of Learning Outcome's, the trainee is eligible to take Subsequent assessment on the balance Learning Outcome's to pass the Qualification Document.
4.	**Annexure:** Assessment Strategy *(Mandatory)*	• Assessment criteria for Qualification Document have been developed. Each Learning outcome have 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 bank developed to assess the theoretical and practical knowledge. To ensure the quality, each trainees get the unique set of question. • Student must 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 trainee specifically on practical skills. • Assessments are preferably conducted by written examination papers in English/ regional languages according to the requirement. • It has been 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:** Industry Validation	*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	Blow Moulding Operator is expected to ensure housekeeping and safety in the blow moulding area and select the correct process, parameter etc he/she must- ➢ To ensure availability of consumables and plastics materials for production in sufficient quantity as per production plan/operators' instructions. ➢ Clearly understanding the dos and don'ts of the manufacturing process as defined in SOPs/ Work Instructions or defined by operator. ➢ Check availability of the personal protective equipment's (PPE) like Gloves, Goggles etc. ➢ Understand the moulding /production procedure and process to be adopted for completing the work order from the operator by referring the Work Instruction document/ SOP manual. ➢ Ensure that the required material is procured from the store before starting the process ➢ Understand the raw material, process required for executing the required operation and ensure that the same is available for operation. ➢ If raw material, mould etc., is not available collect the Mould/die from tool room/ storage. ➢ Add the raw material in the machine using 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 machine for any oil, grease, combustible substances etc. to prevent any accident ➢ Understand the raw material like plastics granules, fillers, additives etc. required for executing the activity. ➢ 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 Blow Moulding requires 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/she must collect the Raw material, Mould from tool room/ storage area. He/she should understand the raw material like plastics granules, fillers, bonding additives etc. Required for executing the activity. Machine Operator-Blow Moulding is responsible for the work in familiar, predictable, routine which justifies the pegging of Level 3.	3.5
Professional and Technical Skills/ Expertise/ Professional Knowledge	The user/individual on the job needs to know and understand: ➢ General Principle of Blow moulding procedure, process knowledge, machine start-up & shutdown procedures, moulds loading and unloading procedure. ➢ Types of different plastics materials, grades of different plastics available in the market, requirement for the order and additives. ➢ Different types of tools & machinery to process the plastics and trim the output ➢ Identification of various defects in products produced in the various Blow Moulding machineries.	Machine Operator Blow Moulding should understand and know basic facts, process, principle of EBM, SBM, IBM etc., Machine Operator-Blow Moulding is having the factual knowledge of the required field which justifies the pegging of Level 3.	3.5
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	The user/individual on the job needs to know and understand: ➢ Types of plastics like thermoplastics and the additives & grades to be used, tonnage and capacity of the machine being operated. ➢ Different types of tools and machinery to process the plastic and trim the output ➢ Various types of cooling systems and their properties.	Machine Operator-Blow Moulding should recall general principles, lay out and process knowledge, Types of plastics like thermoplastics and the additives &grades to be selected. Thus, he should demonstrate	3.5

	➢ How to perform moulding machine safety check ➢ Hazards and safety aspects involved in tape 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 solution 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.	practical skill, routine and repetitive in the respective process. Machine Operator Blow Moulding demonstrates and recall the practical skills, doing the routine and repetitive work using appropriate methods & tools with quality which justifies the pegging of Level 3.	
Broad Learning Outcomes/Core Skill	The user/ individual on the job needs to know and understand: ➢ How to be able to read warnings, instructions and other text material on product labels, components etc., ➢ How to enter the history card details of the fault identified in the plastic product manufactured, read equipment manuals and process documents to understand the equipment & processes. ➢ Read instructions mainly safety instructions especially symbol 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 operator appropriately to understand the nature of the problem and make a dialog ➢ Avoid using jargon, slang or acronyms when communicating with a operator /fellow subordinates etc. unless it is required.	Machine Operator-Blow Moulding should be able to read warnings, instructions and other text material on product labels, components etc., with minimum required clarity, should have skill of basic arithmetic, like raw material weights additions etc. He/ She must have the ability to communicate in written and oral with required clarity, skill to basic arithmetic and understanding of working environment which justifies the pegging of Level 3.	3.5
Responsibility	Machine Operator - Blow Moulding is majorly responsible for his own job and self-learning. He/she Set up basic as well as all critical machine controls and may operate Blow moulding Machine to produce good quality moulding as per approved specifications by supervisor. He may need to control/ check multiple machines at a time.	Machine Operator - Blow Moulding is majorly responsible for his own job and learning which justifies the pegging of the QP at Level 3.	3.5

Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: Minimum 15 & Maximum 45

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1.	Measuring equipment	Steel Ruler, Micrometer, Vernier Caliper, Radius gauge, Feeler gage, Steel measuring tape, Weighing Balance (1 No.)	As per requirement
2.	Hand Tools	Hammer, screw driver set with Multiple heads, Allen key hexagonal, File triangular, Hacksaw, adjustable, Spanner set double side, Adjustable spanner	As per requirement
3.	Personal Protective equipment	Safety Goggles, Rubber Gloves, Asbestos gloves, Fire Extinguisher, Apron, Helmet, First Aid Box with Medicines	As per requirement
4.	Plastics raw material	HDPE, PP, PET etc., for training on blow moulding machines of Blow grade	As per requirement
5.	Mould	Hand mould, Blow Mould	As per requirement
6.	Auxiliary equipment	Automatic Hopper Loader, Hot air oven and Dryer, Dehumidifier, Mould Temperature Controller, Scrap Grinder, Crane, Air Compressor, Hot air blow Gun, Water cooling Tower, Chiller	As per requirement
7.	Machines/ equipment	Hand Operated Blow Moulding M/C with accessories, Semi-Automatic Extrusion Blow Moulding Machine, Fully Automatic Extrusion Blow Moulding Machine, Semi-Automatic Single Stage Blow Moulding machine/ Semi-Automatic double stage Blow Moulding Machine/ Injection Stretch Blow Moulding Machine.	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
5. Duster

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	Time Technoplast Limited	Mr. Nadeem Khan	QA/QC Manager	JL74, Mouza-IlLsmpur, P.S. – Jagataballavpur, Bonharishpur, Amta, Howrah – 711 322	7060195778	Hdpeqc.amta@timetechnoplast.com	-
2	Nitin Industries	Mr. Nitin	Managing Director	Plot No.: H-5/7, NIDC Chilkalthana Industrial Area, Off Naregaon Road, Aurangabad – 431 006	9422705621	Nitin.industries@yahoo.com	-
3	V-Tech Plastic Products Ltd., (Part of Sintex BAPL Ltd.,)	Mr. Parth Bhatt	AGM-QA	Raipur, Chhattisgarh	7984093455	Parthkumar_bhatt@welspun.com	-
4	Time Technoplast Ltd.,	Mr. Shivan Sharma	Dy. Manager QA/QC	Survey No. 787/3, 4 Kistapur Village, Near Ravalkol Chaurastha, X Road, Shameerpet Road Medchal Dist Malkajfiri – 501 401	9640384985	hodbmqc@timetechnoplast.com	-
5	Bighnesh Plastic & Packaging	Mr. Joydev Parida	Manager	Sahadevkhunta, Near Suraj Hotel, Balasore – 756 001, Odisha	8918555608	bighneshplast@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
2025-26	1500	1200	75	60	-	-
2026-27	1500	1200	75	60	-	-
2027-28	1500	1200	75	60	-	-

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	278	278	278	225	47	47	47	38	-	-	-	-
1.0	2022-23	674	674	674	541	112	112	112	88	-	-	-	-
1.0	2023-24	453	453	453	372	113	113	113	91	-	-	-	-

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 Schemes
2. PM-Daksh
3. NSSH
4. State Govt. schemes

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 0411: Maintain basic health and safety practices at the workplace, 5S.	AO1. Use 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. Always apply good housekeeping practices.	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 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 other 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.	0.5	1	-	-
	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 floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards.	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 labeling of fluids, oils, lubricants, solvents, chemicals etc. and proper storage of the same to avoid spillage, leakage, fire etc. 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**	-	-
2. CPC/N 0422: Basics of Plastics Processing methods	AO1. The need for plastics processing.	1	2	-	-
	AO2. Ensure merits and demerits of Blow Molding to over the all others plastic Process.	1	2	-	-
	AO3. Definition and terminology related to Plastic Processing.	1	2	-	-
	AO4. Ensure finishing operation including surface treatment of the fabricated product if required as per SOP.	1	2	-	-
	AO5. Primary Processing Methods as per company's SOP.	1	2	-	-
	AO6. Secondary Processing Methods as per company's SOP.	1	2	-	-
	AO7. Processing fundamentals	1	2	-	-
	AO.8 The type of process to be used depends on a variety of factors, including product shape and size, plastic type, quantity to be produced, quality and accuracy (Tolerances) required, design load performance, cost limitation, and time schedule.	1	2	-	-
	AO.9 Machine Operation Terminology: as per manual, semiautomatic, fully automatic.	1	2	-	-
	AO.10 Type of Conversion Techniques: Injection, Blow, Compression, Transfer, Rotational and Other processes and comparison of Blow Molding with other process.	1	2	-	-
	AO11. Material to be processed.	1	2	-	-
	AO12. Product design / configuration, Tolerance.	1	2	-	-
	AO13. Process Limitations.	1	2	-	-
	AO14. Quality.	1	2	-	-
	AO15. Cost / Performance balance.	1	2	-	-
	Total Marks	**15**	**30**	-	-
3. CPC/N 0424: Auxiliary equipments in Plastics processing.	AO1. Some duties include: Inspecting, monitoring, operating fuel systems, fuel oil transfer & supply lines & associated equipment and fossil fuel chillers.	1.5	1	-	-
	AO2. Operate condensate & feed water systems, circulating & cooling water systems, condensate & 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	1	-	-
	AO3. Connects basic plant services as needed to meet production requirements and makes initial checks of operating conditions before initiating production runs.	1.5	1	-	-
	AO4. Assist in cleaning and lubrication of equipment and tooling and performs various preventative maintenance tasks as needed.	1.5	1	-	-
	AO5. Basic Knowledge of different types of Predrier-Hot air Oven, Hopper Driers, Dehumidifiers etc.	1	1	-	-

	AO6. Basic Knowledge of Chiller, Cooling Tower for the controlling temperature of Mould, machine and Fluids.	1	2	-	-
	AO7. Basic Knowledge of Operation and Monitoring -- Watching gauges, dials, or other indicators to make sure a machine is working properly.	1	2	-	-
	AO8. Basic Knowledge of Compressor and Scrap Grinder.	1	2	-	-
	AO9. Understand Equipment Maintenance -- Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.	1	2	-	-
	AO10. Ensure the Equipment Selection -- Determining the kind of tools and equipment needed to do a job.	1	2	-	-
	AO11.Follow instructions given on the equipment manual describing the operating process of the equipment.	1	2	-	-
	AO12. Safety, Health and Environment related practices developed by the organization.	1	2	-	-
	AO13. Ensure relevant safety boards/ signs are placed on the shop floor.	1	2	-	-
	AO14. Operate the machine using the recommended Personal Protective Equipment (PPE) and ensure team members also use the related PPEs at the workplace.	1	2	-	-
	AO15. Maintain a clean and safe working environment near the work place and ensure there is no spillage of chemicals, production waste, oil, solvents etc.	1	2	-	-
	AO16. Attend all safety and fire drills to be self-aware of safety hazards and preventive techniques.	1	2	-	-
	AO17. Maintain high standards of personal hygiene at the work place.	1	1	-	-
	AO18. Ensure that the waste disposal is done in the designated area and manner as per organization SOP.	1	2	-	-
	Total Marks	**20**	**30**	-	-
4. CPC/N 0418 **Basic Knowledge of Communication/soft skills.**	AO1. Accurately receive information and instructions from the supervisor and fellow workers, getting clarification where required	1	3	-	-
	AO2. Accurately pass on information to authorized persons who require it and within agreed timescale and confirm its receipt	1	3	-	-
	AO3. Give information to others clearly, at a pace and in a manner that helps them to understand	1	3	-	-
	AO4. Display helpful behavior by assisting others in performing tasks in a positive manner, where required and possible	1	3	-	-
	AO5. Consult with and assist others to maximize effectiveness and efficiency in carrying out tasks	1	3	-	-
	AO6. Display appropriate communication etiquette while working	1	3	-	-
	AO7. Display active listening skills while interacting with others at work	1	3	-	-
	AO8. Use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism	1	3	-	-
	AO9. Demonstrate responsible and disciplined behaviors at the workplace	1	3	-	-
	AO10. Escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict	1	3	-	-

	Total Marks	**10**	**30**	-	-
5. CPC/N 0420: **Advanced method for Fitting Tools Measuring Equipments & Practice**	AO1. Comply with health and safety, environmental and other relevant regulations and guidelines at work .	2	3	-	-
	AO2. Adhere to procedures and guidelines for personal protective equipment (PPE) and other relevant safety regulations while performing die fitting operations.	2	3	-	-
	AO3. Work following laid down procedures and instructions.	2	3	-	-
	AO4. Ensure work area is clean and safe from hazards	2	3	-	-
	AO5. Obtain job specification from a valid & approved source.	2	3	-	-
	AO6. Read and understand job requirements from the job specification document properly.	1	3	-	-
	AO7. Report & rectify incorrect information in job specification documents as per job requirement.	1	3	-	-
	AO8. Preparation for the fitting operations as per procedure.	1	3	-	-
	AO9. Ensure that all calibrated measuring instruments used.	1	3	-	-
	AO10. Ensure that the components used are free from foreign objects, dirt and corrosion.	1	3	-	-
	AO11. Obtain correct work pieces and consumables as per job requirements.	1	2	-	-
	AO12. Obtain appropriate tools and measuring instruments.	1	2	-	-
	AO13. Setting of work pieces as per job requirements using appropriate holding devices.	1	2	-	-
	AO14. Marking specified features with the help of marking-out methods on the work pieces as per job specification by using appropriate measuring and marking tools.	1	2	-	-
	AO15. mark out templates for tracing/transferring the specified features on the work pieces as per drawing.	1	2	-	-
	AO16. Tracing or transfer the specified features from the templates onto the work pieces as per drawing.	1	2	-	-
	AO17. Perform fitting operations on various forms of metal components using a range of hand tools and manually operated machines.	1	2	-	-
	AO18. Follow the specified machining sequence and procedure as per job specifications.	1	2	-	-
	AO19. Check the machined components to ensure completeness of work.	1	2	-	-
	AO20. Check the quality of the output as per required standards, using visual checks and measurement of dimensional parameters using measuring instruments.	1	2	-	-
	AO21. Produce components with various features as per standards applicable to the process.	1	2	-	-
	AO22. Check the finished components as per job requirement.	1	2	-	-
	AO23. Complete documentation during and post operations as per procedures.	1	2	-	-
	AO24. Return all tools and equipment to the correct location on completion of the fitting activities.	1	2	-	-
	AO25. Leave the work area in a safe and tidy condition on completion of job activities.	1	2	-	-
	Sub total	**30**	**60**	-	-
	AO1. Basic Importance of polymers in Human Life.	1	2	-	-
	AO2. Study of fundamental terminology of polymers	1	2	-	-

6. CPC/N 0421: Introduction and test method for Polymers & thermoplastics Materials.	AO3. Classification of polymers- polymer structure & morphology, etc.	1	2	-	-
	AO4. Introduction to monomers and Polymers.	1	2	-	-
	AO5. Polymerization.	1	2		
	AO6. Types of Polymerization- Condensation-Addition- Copolymerization.	1	2	-	-
	AO7. Characterization.	1	2	-	-
	AO8. Polymer Solution.	1	2	-	-
	AO9. Measurement of Molecular weight and sizes-Structure and properties of Polymers.	2	4	-	-
	AO10. Commodity Polymers: Polyolefin: LDPE – HDPE – LLDPE, PP etc.	1	2	-	-
	AO11. Engineering Polymers: PC, ABS, PMMA, POM and PA- Nylon etc.	1	2	-	-
	AO12. Special Polymers: FEP, PVDF etc and PET material properties and its application in blow Molding.	1	2	-	-
	AO13. Conventional Methods of Identification:-Drop Test, water floatation Test, Scratch test.	1	2	-	-
	AO14. Advanced Methods of Identification:-MFI, Melting etc. and common acronyms in the plastics and commercial trade names.	1	2	-	-
	Sub total	**15**	**30**	-	-
7. CPC/N 0423: Advanced Blow Moulding Techniques for Plastics processing and inspection of the finished products.	AO1. Study of Principle of Blow Molding process.	1	1	-	-
	• Plasticizing/ melting the resin.	1	1	-	-
	• Parison or preform production.	1	1	-	-
	• Blowing of parison.	1	1	-	-
	• Ejection of the part and trim.	1	1	-	-
	AO2. Basic Need of Tools and Accessories and Machineries.	1	1	-	-
	AO3. Understanding of Plastic Material for Blow Molding- Commodity-Polyolefin's, Engineering-PET	1	1	-	-
	AO4. Various types of extrusion blow moulding Process.	1	1	-	-
	AO5. Continuous blow moulding process:- single head method, Twin station method, Rotary table system.	1	1	-	-
	AO6. Intermitted blow moulding process:- Reciprocating screw extruder, Ram accumulator extrusion Accumulator head method.	1	1	-	-
	AO7. Study of Extrusion blow molding. (EBM)	1	1	-	-
	AO8. Study of Injection blow molding. (IBM)	1	1	-	-
	AO9. Study of Injection Stretch blow molding process. (ISBM)	1	1	-	-
	A10. Study of Extrusion Stretch Blow Molding.	1	1	-	-
	A11. Various types of blow moulds-Side feed, Centre Feed, Spiral Mandrel, Extrusion Blow, stretch Blow, Injection Blow molds etc.	1	1	-	-
	A12. Setting of PET Injection moulding Machine operation, Load the material in the correct pattern as per SOP to minimize material overflow/ wastage/ excess flash.	1	1	-	-
	AO13. Check the identified feed strip for dimension uniformity/identified granules.	1	1	-	-

	AO14. Make the plastic compound or granule ready for feeding into the machine.	1	1	-	-
	AO15. Start the machine and feeding simultaneously.	1	1	-	-
	AO16. Ensure that moulding pressure and temperature is maintained during the process cycle.	1	1	-	-
	AO17. Ensure mould lifting/ ejection/ slide mechanism of the press are properly functioning.	1	1	-	-
	AO18. Manufacturing the preform as per SOP.	1	1	-	-
	AO19. Remove the Manufacturing the preform from the mould as per SOP.	1	1	-	-
	AO20. Check for operation of molding apparatus like hopper, heaters, extruder, blow molding die/mold, screen pack etc. as per the checklist provided	1	1	-	-
	AO21. Fix the desired die/mold to the blow molding machine apparatus in order to achieve the desired operation as per the Work Instructions/ SOPs.	1	1	-	-
	AO22. 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.	1	1	-	-
	AO23. Use weighing machines to measure the quantity of granules and ensure that the correct quantities of granules are put in the hopper.	1	1	-	-
	AO24. Check the parameters – Temperature, pressure, current, extruder speed etc. in line with the work instructions/ SOPs.	1	1	-	-
	AO25. Setup the apparatus as per the selected process and the moulding standards used in the processing industry.	1	1	-	-
	AO26. Adjust the temperature and other parameters of the moulding apparatus as per the values given in Work Instructions/ SOPs.	1	1	-	-
	AO27. Ensure availability of the coolant and working of valves to circulate the coolant to cool and solidify plastic.	1	1	-	-
	AO28. Ensure the functionality and assembly of die as per SOP.	1	1	-	-
	AO29. Adjust the Parison controlling and program the parison with the help of parison programming tools and software as per requirement.	1	1	-	-
	AO30. Die shaping in blow molding.	1	1	-	-
	AO31. Study the types of mandrel used in blow molding.-Divergent and convergent.	1	1	-	-
	AO32. Study of Blow Ratio, parison swell, Die Swell, Types of Parison Blowing system:-Pneumatic and ejection system.	1	1	-	-
	AO33. Understand the molding procedure & process to be adopted for completing the work order from the supervisor by referring the Work Instruction document/ SOP manual.	1	1	-	-
	AO34. Set the various molding parameters like temperature of heaters, back pressure/ air pressure/ vacuum pressure, screw speed of the extruder, regulating current, flow of coolant/ water etc. before starting the process. Process parameters are mentioned in the Work Instructions/ SOP manual.	1	1	-	-
	AO35. Understand raw material like plastics granules, fillers, bonding additives grades etc. required for executing the activity.	1	1	-	-
	AO36. Ensure that the required material is procured from the store before starting the process.	1	1	-	-

	AO37. Understand the type of Die required for executing the required operation and ensure that the same is available for operations.	1	2	-	-
	AO38. Understand the number of heaters required for the extruder assembly, heater temperature and current required for the heating operations as mentioned in the Work Instructions/ SOP manual. Ensure housekeeping safety in the molding area. Use lifting equipments or for lift/trolley for mold/material. Keep all safety requirements.	1	2	-	-
	AO39. Preheating of plastic granules to improve their tensile strength.	1	2	-	-
	AO40. Ensure that the plastic granules are mixed with additives (if any) before being fed into the hopper.	0.5	2	-	-
	AO41. Turn valves of machines to regulate screw speed and quantity of the plastic coming out of the hopper.	0.5	2	-	-
	AO42. Ensure pouring in line with the defined standards and specifications.	0.5	2	-	-
	AO43. Record the feeding observations like interrupted pouring or any abnormality.	0.5	2	-	-
	• In case extrusion blow molding.	0.5	2	-	-
	• In case of Injection Blow Molding.	0.5	2	-	-
	• In case of Injection Blow Molding	0.5	2	-	-
	• Optimization of Process Parameters.	0.5	2	-	-
	AO44. Conduct a test process and produce a sample output as per the sketches/ engineering drawing shared with the supervisor.	0.5	2	-	-
	AO45. Check the hollow articles (bottles, container) for geometry, material & dimensional parameters as per the Control Plan before starting the production.	0.5	2	-	-
	AO46. Ensure that the dimensions of the output product are measured as per the process given in the Work Instructions/ SOP. In case the test product matches the dimensions and quality of the final output, start the production process.	0.5	2	-	-
	AO47. Feed the required operation code in the apparatus for heaters to melt the plastic granules at the predefined temperature.	0.5	2	-	-
	AO48. Adjust the extruder speed and the extruder pressure to force the molten plastic into the die to create the desired output.	0.5	2	-	-
	AO49. Turn valves of machines to regulate speed and quantity of the plastic coming out of the hopper.	0.5	2	-	-
	AO50. Ensure feeding in line with the defined standards and specifications.	0.5	2	-	-
	AO51. Record the feeding observations like interrupted pouring or any abnormality.	0.5	2	-	-
	AO52. Ensure the proper functioning of screen pack and die for uniform melting of plastic and removal of the contaminants. (if any)	0.5	2	-	-
	AO53. Monitor the process (parameters like temperature, pressure, speed etc.) by observing and analyzing the readings on various panels/ meters to prevent machine breakdown and deviations of the output from desired specifications.	0.5	2	-	-
	AO54. Observe and analyze any irregularity in the process and take preventive steps.	0.5	2	-	-
	AO55. Clean the die opening & die; changing the screen pack.	0.5	2	-	-

	AO56. Ensure code printing of the product with the identifying information (wherever required) and send the same for further processing.	0.5	1	-	-
	AO57. Instruct the helper to neck finishing and pinch off of the product as per the desired geometric specifications. (doesn't required for IBM)	0.5	1	-	-
	AO58. Measure the final plastic molded product and compare the dimensions as prescribed in the work order/ engineering drawing.	0.5	1	-	-
	AO59. In case the parts are not as per the given measurements, send the same for further processing in terms of cutting, finishing etc.	0.5	1	-	-
	AO60. Measure the specifications of the finished products using devices like micrometers, Vernier calipers, gauges, rulers, weighing scales, Thickness Gauge and any other inspection equipment and compare with the parameters given in the work order.	0.5	1	-	-
	AO61. Compare texture, surface properties, hardness and strength with the given product specifications	0.5	1	-	-
	AO62. Note down the observations of the basic inspection process and Identify pieces which are OK and also not meeting the specified standards.	0.5	1	-	-
	AO63. Discard the batch which are beyond repair and repair the ones which need minor modifications in settings.	0.5	1	-	-
	AO64. Maintain records of each category of work outputs as per the batch etc. so that correction can be organized.	0.5	1	-	-
	AO65. Establish linkage between rejection of output and the pertinent causes for the same (process/ material etc.); Recommend the means for rejection control.	0.5	1	-	-
	AO66. Rectify minor defects like dimension variation, thickness variation etc. by control process parameters etc.	0.5	1	-	-
	AO67. 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.	0.5	1	-	-
	AO67. Provide first and last output from each batch to the lab for quality check on its composition, properties etc.	0.5	1	-	-
	AO68. Obtain clearance for the entire batch from the lab.	0.5	1	-	-
	Sub total	**60**	**100**	-	-
8. CPC/N 0425: Mould Technology Techniques for Plastics Processing	AO1. Basic Study of Mould Material requirement, Mold Manufacturing Process and machineries.	2	4	-	-
	AO2. Compute dimensions, sizes, shapes and tolerances of machining component are as per specifications and as per company procedures.	2	4	-	-
	AO3. Determine information such as number of parts to make, engineered components and material to be used, and machines to be used.	2	4	-	-
	AO4. Identify and confirm resources required such as components, machinery, range of materials and processes.	2	4	-	-
	AO5. Study of range of Materials and how its effect on process and life of mould: Ferrous metals: eg. Carbon steels, stainless steels, cast iron, tool steel, hard metals; Non-ferrous alloys.	2	4	-	-
	AO6. Identify the operations that will be required for machining components based on design requirements.	2	4	-	-

	AO7. Identify type of equipment required for machining components based on the operations selected.	2	4	-	-
	AO8. Comparison of Blow Mold with the Injection rotational merits and demerits for overcome the above process mould.	2	4	-	-
	AO9. Construction and study Mold for EBM, IBM, and SBM.	2	4	-	-
	AO10. Mold cooling systems: Pneumatic, water cooling.	0.5	4	-	-
	AO11. Basic Study of the main components of molds (Die Core, Die Cavity and Screw Neck) are made by injection process, which are made of special mold steel.	0.5	4	-	-
	AO12. Cavities Preform Mold, designed, and developed as per SOP.	0.5	3	-	-
	AO13. Follow the instructions given on the equipment manual describing the operating process of the equipment.	0.5	3	-	-
	Sub total	**20**	**50**	-	-
9. CPC/N 0427: Quality Management systems.	AO1. Study and understand of Total Quality Control	1	3	-	-
	AO2. Need of Management of Product Quality.	1	3	-	-
	AO3. Understand the Concept of Total Quality Management.	1	3	-	-
	AO4. Understanding the TQM Philosophy.	1	3	-	-
	AO5. Understanding the need for Quality system.	1	3	-	-
	AO6. Study and understand of Total Quality control tools - ISO, 5S, Six Sigma, OHSAS 18001	1	3	-	-
	AO7. Study and understand of Behavioral Science.	1	3	-	-
	AO8. Different between Behavioral Science and Social Science.	1	3	-	-
	AO9. Categories of Behavioral Science.	1	3	-	-
	AO10. Theories of Behavioral Psychology, Entrepreneurship development, preparing project report selecting a particular plastic product of their choice and submission.	1	3	-	-
	Sub total	**10**	**30**	**-**	**-**
8. 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**	**-**	**-**
Total		**200**	**400**		

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 assigned to the assessment agencies for conducting the assessment on SIP or email
- Assessment agencies send the assessment confirmation to VTP/TC looping SSC
- Assessment agency deploys the ToA certified Assessor for executing the assessment
- SSC monitors the assessment process & 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.
- 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

6. 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 define 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