

QUALIFICATION FILE

Junior Designer – Die and Mould for Plastics

- ☒ 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: 5

Submitted By:

Rubber, Chemical & Petrochemical Skill Development Council (RCPSDC)

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New Delhi – 110017 (India)

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Section 1: Basic Details

1.	Qualification Name	Junior Designer – Die and Mould for Plastics																
2.	Sector/s	Polymer																
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing/previous qualification: <i>(change to previous, once approved)</i>	Qualification Name of existing/previous version:															
4.	a. OEM Name b. Qualification Name <i>(Wherever applicable)</i>																	
5.	National Qualification Register (NQR) Code & Version <i>(Will be issued after NSQC approval)</i>	QG-05-RI-04045-2025-V2-RSDC	6. NCrF/NSQF Level: 5															
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other) <i>(Wherever applicable specify multiple entry/exits also & provide details in annexure)</i>	Certificate																
8.	Brief Description of the Qualification	The Jr. Designer Die and Mould for Plastics assists in designing, modeling, and documenting dies and moulds for plastic components. The role involves understanding product and tooling requirements, supporting CAD modeling, preparing technical documentation, and performing quality checks under supervision while collaborating with engineers, toolmakers, and production teams.																
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: <table border="1"> <thead> <tr> <th>S. No.</th> <th>Academic/Skill Qualification (with Specialization - if applicable)</th> <th>Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Completed UG Diploma or equivalent</td> <td></td> </tr> <tr> <td>2</td> <td>12th Grade pass or equivalent</td> <td>3 years relevant</td> </tr> <tr> <td>3</td> <td>10th Grade pass or equivalent</td> <td>6 years relevant</td> </tr> <tr> <td>4</td> <td>Previous relevant qualification of NSQF Level 4</td> <td>3 years relevant</td> </tr> </tbody> </table> b. Age: 18 years		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	Completed UG Diploma or equivalent		2	12 th Grade pass or equivalent	3 years relevant	3	10 th Grade pass or equivalent	6 years relevant	4	Previous relevant qualification of NSQF Level 4	3 years relevant
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																
1	Completed UG Diploma or equivalent																	
2	12 th Grade pass or equivalent	3 years relevant																
3	10 th Grade pass or equivalent	6 years relevant																
4	Previous relevant qualification of NSQF Level 4	3 years relevant																
10.	Credits Assigned to this Qualification, Subject to Assessment <i>(as per National Credit Framework (NCrF))</i>	17	11. Common Cost Norm Category (I/II/III) <i>(wherever applicable): I</i>															
12.	Any Licensing requirements for Undertaking Training on This Qualification <i>(wherever applicable)</i>	NA																

13.	Training Duration by Modes of Training Delivery (<i>Specify Total Duration as per selected training delivery modes and as per requirement of the qualification</i>)	☒ Offline ☐ Online ☐ Blended					
		Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)
		Classroom (offline)	155:00	295:00	60:00	-	510:00
		Online					
(Refer Blended Learning Annexure for details)							
14.	Aligned to NCO/ISCO Code/s (<i>if no code is available mention the same</i>)	NCO-2015/2144.0803					
15.	Progression path after attaining the qualification (<i>Please show Professional and Academic progression</i>)	Designer – Die and Mould for Plastics					
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	Hindi					
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	☐ Yes ☒ No URLs of similar Qualifications:					
18.	Is the Job Role Amenable to Persons with Disability	☐ Yes ☒ No					
19.	How Participation of Women will be Encouraged	No gender sensitization					
20.	Are Greening/ Environment Sustainability Aspects Covered (<i>Specify the NOS/Module which covers it</i>)	☒ Yes ☐ No					
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools ☐ Yes ☒ No Colleges ☐ Yes ☒ No					
22.	Name and Contact Details of Submitting / Awarding Body SPOC (<i>In case of CS or MS, provide details of both Lead AB & Supporting ABs</i>)	Name: Saif Mohammad Email: ceo@rcpsdc.in Contact No.: 011 41004899 Website: http://rsdcindia.in/					
23.	Final Approval Date by NSQC: 30/04/2025	24. Validity Duration: 3 Years				25. Next Review Date: 30/04/2028	

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.	Understand Product and Tooling requirements	RSC/N4318 & V1.0	Core	5	4	40	80	00	00	120	30	70	0	0	100	20
2.	Assist in CAD Modeling of Die and Moulds	RSC/N4319 & V1.0	Non-Core	5	5	50	100	00	00	150	40	60	0	0	100	40
3.	Support in Die and Mould Design Documentation	RSC/N4320 & V1.0	Non-Core	5	3	30	60	00	00	90	30	70	0	0	100	10
4.	Follow health and safety protocol	RSC/N5007 & V4.0	Non - Core	4	1	15	15	00	00	30	30	70	0	0	100	15
5.	Employability Skills (60 Hours)	DGT/VSQ/N0102 & V1.0	Non - Core	4	2	20	40	00	00	60	20	30	0	0	50	10
6.	OJT		Core	5	2	00	00	60	00	60	0	0	0	0	0	0
Duration (in Hours) / Total Marks					17	155	295	60	00	510	150	300	0	0	450	100

Assessment - Minimum Qualifying PercentagePlease specify **any one** of the following:

Minimum Pass Percentage – Aggregate at qualification level: 70 % (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)	Bachelors in Plastic Engineering/ Mechanical Engineering/ Polymer Engineering/ Product Design/ Industrial Design with 5 years of Industrial Experience.
2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Bachelors in Plastic Engineering/ Mechanical Engineering/ Polymer Engineering/ Product Design/ Industrial Design with 7 years of Industrial 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	NA

Section 4: Assessment Related

1.	Assessor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Bachelors in Plastic Engineering/ Mechanical Engineering/ Polymer Engineering/ Product Design/ Industrial Design with 7 years of Industrial Experience.
2.	Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Diploma in any stream
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Bachelors in Plastic Engineering/ Mechanical Engineering/ Polymer Engineering/ Product Design/ Industrial Design with 10 years of Industrial Experience.
4.	Assessment Mode (Specify the assessment mode)	Blended
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): Work in progress
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): Work in progress
3.	Government /Industry initiatives/ requirement (Yes/No): Yes
4.	Number of Industry validation provided: 27
5.	Estimated nos. of persons to be trained and employed: Work in progress
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: Mail shared

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 <i>(Mandatory)</i>	<i>Attached</i>
2.	Annexure: List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	<i>Attached</i>
3.	Annexure: Detailed Assessment Criteria <i>(Mandatory)</i>	<i>Attached</i>
4.	Annexure: Assessment Strategy <i>(Mandatory)</i>	<i>Attached</i>
5.	Annexure: Blended Learning <i>(Mandatory, in case selected Mode of delivery is "Blended Learning")</i>	<i>Attached</i>
6.	Annexure: Multiple Entry-Exit Details <i>(Mandatory, in case qualification has multiple Entry-Exit)</i>	<i>Attached</i>
7.	Annexure: Acronym and Glossary <i>(Optional)</i>	<i>Attached</i>
8.	Supporting Document: Model Curriculum <i>(Mandatory – Public view)</i>	<i>Attached</i>
9.	Supporting Document: Career Progression <i>(Mandatory - Public view)</i>	<i>Attached</i>
10.	Supporting Document: Occupational Map <i>(Mandatory)</i>	-
11.	Supporting Document: Assessment SOP <i>(Mandatory)</i>	<i>Attached</i>
12.	Any other document you wish to submit:	-

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	- assist in product design and development by interpreting user requirements and converting them into 2D/3D concepts - support the creation of detailed drawings and tolerance specifications for plastic components - apply knowledge of plastic materials and their behavior in various applications - follow safety, sustainability, and ergonomic guidelines while designing	- the Jr. Designer is expected to demonstrate a wide range of factual and theoretical knowledge of plastic materials, CAD principles, design standards, and product performance expectations - works under supervision but exercises judgment in choosing materials, dimensions, and features to match the design brief - hence, the job role corresponds to Level 5 as it involves understanding principles, concepts, and applied design theory	5
Professional and Technical Skills/ Expertise/ Professional Knowledge	- create and modify 2D/3D models using industry-relevant CAD software - assist in performing design validation through prototyping and product testing - follow iterative processes to revise and improve designs based on feedback - prepare documentation, reports, and maintain design logs	- requires cognitive and practical skills to carry out tasks that involve selection, adaptation, and application of design software and tools - uses structured procedures and solves problems that have defined guidelines but require contextual decision-making - hence, it matches Level 5, which emphasizes application of skills in familiar yet variable situations	5
Professional skill	- demonstrate use of CAD tools, material libraries, and simulation features to support product realization - identify design issues and recommend solutions - assist in prototyping processes like 3D printing or CNC-based fabrication - contribute to discussions and brainstorming sessions to improve product aesthetics and performance	- the job role involves judgment-based tasks with moderate complexity, like choosing correct modeling methods, modifying geometry, or evaluating prototype results - the Jr. Designer consistently demonstrates a degree of autonomy and innovation in work-related problem solving - this is aligned with Level 5 requirements for professional skill	5
Core skill	communicate effectively with design leads, production staff, and prototyping teams	the role demands reasonably high oral and written communication skills, the ability to maintain work records, interact	5

	- interpret technical drawings, CAD files, and feedback notes - document and maintain design versions and test data - ensure workplace communication, documentation, and coordination follows organizational and ethical standards	- with design or production teams, and document activities - also demonstrates understanding of health, safety, and environmental factors in the workplace - this is consistent with Level 5 descriptors of core skills	
Responsibility	- take responsibility for accuracy and timeliness of 2D/3D drawings created under design supervision - ensure implementation of design inputs into physical models or prototypes - maintain design documentation, follow CAD standards, and support design iterations - work collaboratively, manage tasks independently with responsibility for own output	- the job role includes partial autonomy and defined accountability, especially in delivering technical design tasks accurately and on time - works under guidance but is fully responsible for quality and compliance in own area of work - this reflects Level 5 where the individual has responsibility for own work and some supervision of others or tasks	5

Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	CAD Software	AutoCAD, Solidworks, Fusion 360 or Creo	15
2	3D Printer	FDM type	1
3	3D Printing Filament	PLA/ ABS	10 spools
4	Vernier Caliper	Digital	5
5	Micrometer	Mechanical	5
6	Measuring Scale	Stainless steel	5
7	Plastic Sample products		As required
8	Plastic moulded products		As required
9	Prototyping tools	Utility knives, sanding tools, glue gun, cutting mat, etc.	5 set
10	Hand Tools	Small hammer, pliers, screwdrivers, spanners	15
11	Workbenches	6 ft × 3 ft, steel frame with wooden top	As required
12	Optional Small Machines	Manual shaping/milling tool or bench drill	1-2
10	Safety Equipment (PPE)	Goggles, gloves, aprons	As required

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Whiteboard

2. Flip Charts
3. Markers
4. Duster
5. Projector
6. Projector screen
7. Computer/ Laptop with charger
8. Power Point Presentation
9. 2.1 Laptop External Speakers
10. Whiteboard marker/Blackboard
11. Training kit (Trainer guide, Presentations)
12. Participant Handbook and Related Standard Operating Procedures

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	Sidhi Thermoformers Village Bhanokheri	Ashish Sareen	Manager Operations	Ambal	9416195379	ashusareen1@yahoo.com	-
2	Medicoplast	Paresh	Proprietor	Vadodara	9638371969	medicoplastindia@gmail.com	-
3	Ahilya Enterprises	Abhishek Dubey	Proprietor	-	9148364916	avdubey.ahilya@gmail.com	-
4	Kira Enterprises	Abhinav Jalan	Accounts And Sales	-	8853841030	kiranenterprises91@yahoo.com	-
5	R J TACKLES PVT LTD.	Harishankar Das	Factory Incharge	Howrah	7003754291	factoryrjt@gmail.com	-
6	PRINCE PET	Raja Gosh	Proprietor	Kolkata	9681569912	princepet.kp@gmail.com	-
7	Packaging and Recycling Consultant	Rajesh Kumar Gera	-	-	9967033107	rajeshkgera@gmail.com	-
8	Grihzon Plastic Bottle Manufacturing Pvt Ltd	Sumit Kumar	Director	Jharkhand	6370578724	grihzone.info@gmail.com	-
9	Mahabir Plastic Industries	Pooja Rehlan	Head- HR	Haryana	8287955040	marketing@mahabirplastic.com	-

10	Manjushree Solutions	Smitha	HR	Assam	7811020465	smitha.b@manjushree.in	-
11	Prandeep Plasto Industries Pvt Ltd	Prangopal Saha	Proprietor	Tripura	9436451890	prangopal.saha@gmail.com	-
12	RFL Plastics	Arindam Modak	Project Manager	Tripura	6009905225	info@rflapp1.com	-
13	Royal fasteners	Kamlesh Jain	Director	Guwahati	6290734254	kamleshjain2006@gmail.com	-
14	Tarashankar Platsoc Industries	Sajib Saha	Project Head	Tripura	0381-2381364	infor@tarashankar.com	-
15	Vishnu Enterprise Pvt Ltd	Ramesh Kumar	Manager	Bihar	7484908397	vishnuenterprize520@gmail.com	-
16	GAIL	Manish Khandelwal	GM	Uttar Pradesh	9958745666	m.khandelwal@gail.com	-
17	Globus Enterprises	Asif Khan	HR Manager	Haryana	8950100576	asif.khan2396@gmail.com	-
18	EPL	Yaram VV Sudhakar	Manager- Technical Recruitment	Maharashtra	9673333546	sudhakar.yaram@eplglobal.com	-
19	Polyplex Cooperation Limited	Sunil Kumar Singh	Lead Manager	Uttarakhand	9568006870	ssingh@polyplex.com	-
20	Cosmo Auto Tech pvt ltd	Prahalad	Senior Manager	Haryana	9911663852	accounts@cosmoautotech.com	-
21	Suman Auto Parts Limited	Anand Sharma	Manager- HR	Haryana	9540777930	anand@sumanauto.net	-
22	Reliance Industries Ltd.	Dr. Ajit Mathur	Retired Vice President (R and D)		9998954004	drajitmathur@gmail.com	-
23	Lisa Plastic	Sunil Sahoo	Manager	Odisha	9776645779	lisa_plastics@yahoo.co.in	-
24	The Sirpur Paper Mills	M. Naga Raju	Sr. Manager	Telangana	9912345001	naga.raju@spm.ikmail.com	-
25	Sekisui Dljm Moulding Pvt Ltd	R. Kumaresan	Assistant Manager	Tamil Nadu	7823930455	hrd5.ch@sekisuidljm.com	-
26	Innovsource Services Private Limited	Ashwin Kute	Vp and Head Sales	Maharashtra	9820854493	ashwinkute@innov.in	-
27	Varroc Polymers	Mahendra Pujari	Manager, HR	Maharashtra	9673001465	mahendra.pujari@varroc.com	-

Annexure: Training & Employment Details

Training and Employment Projections: Work in progress

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities

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	- Books/ e-books - Presentations - Reference Material - Audio / Video Modules	50:50
2	☒ Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	- Self-Learning Videos - Broadcasts - Mobile Learning - Curated Digital content	50:50
3	☒ Showing Practical Demonstrations to the learners	- Video Content - E-Resource library - AR/ VR/ XR	50:50
4	☒ Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	- Training tools (tools list attached) - Video Play - Presentations	50:50
5	☒ Tutorials/ Assignments/ Drill/ Practice	- Online Question Bank - Mobile Quick test app - MCQ based tests	50:50

6	☒ Proctored Monitoring/ Assessment/ Evaluation/ Examinations	- Assessment engine for Essays - Up-loadable file examinations - Mock test sessions	50:50
7	☒ On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training	- Online tests - Offline assessments	50:50

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
RSC/N4318: Understand Product and tooling requirements	<i>Analyze and Interpret Product Requirements</i>	11	23	-	-
	PC1. identify product specifications including dimensions, geometry, material type, and functional requirements	2	4	-	-
	PC2. list out constraints related to manufacturing, cost, and quality standards	2	4	-	-
	PC3. understand compatibility of materials and design with available moulding processes	2	3	-	-
	PC4. point out potential challenges in tooling or production feasibility	2	4	-	-
	PC5. summarize product requirements into clear documentation for design and production teams	2	4	-	-
	PC6. discuss with stakeholders to confirm understanding of product expectations	1	4	-	-
	<i>Determine Tooling Needs and Specifications</i>	9	23	-	-
	PC7. recognize suitable die and mould types for the product based on geometry and material	1	4	-	-
	PC8. apply knowledge of moulding processes to select cavity configuration, gating system, and cooling channels	2	4	-	-
	PC9. develop design briefs and technical documentation for tooling requirements	2	4	-	-
	PC10. ensure tooling design meets quality, safety, and production standards	1	3	-	-
	PC11. conduct basic checks or simulations to verify tooling feasibility	1	4	-	-
	PC12. state required materials, tolerances, and dimensions for die and mould fabrication	2	4	-	-
	<i>Collaborate and Communicate Technical Requirements</i>	10	24	-	-
	PC13. discuss tooling requirements with engineers, toolmakers, and production staff	2	4	-	-
	PC14. display and show CAD drawings, prototypes, and specifications effectively	2	4	-	-

	PC15. conduct reviews to ensure tooling meets functional and safety requirements	1	4	-	-
	PC16. mention any adjustments or improvements needed based on stakeholder feedback	2	4	-	-
	PC17. apply documentation standards to communicate technical details clearly	1	4	-	-
	PC18. recognize and report discrepancies or potential design issues during review	2	4	-	-
	Total Marks	30	70	0	0
RSC/N4319: Assist in CAD Modeling of Die and Moulds	<i>Understand Product and Tooling Requirements</i>	10	15	-	-
	PC1. identify functional, aesthetic, and dimensional requirements of plastic products	2	2	-	-
	PC2. list out material properties, product geometry, and manufacturing constraints	2	3	-	-
	PC3. understand the feasibility of different die and mould types for the product	1	2	-	-
	PC4. point out potential production challenges including tooling limitations and cost factors	2	3	-	-
	PC5. Summarize product specifications for documentation and communication with production teams	1	2	-	-
	PC6. discuss requirements with engineers, toolmakers, and supervisors to confirm understanding	2	3	-	-
	<i>Assist in CAD Modeling of Die and Moulds</i>	10	13	-	-
	PC7. apply CAD software (AutoCAD, SolidWorks, Creo, Fusion 360) to create 2D and 3D models of dies and moulds	2	1	-	-
	PC8. perform modifications on CAD models based on design requirements or feedback	1	2	-	-
	PC9. develop basic assemblies of die and mould components	1	2	-	-
	PC10. show and display CAD models to supervisors and production teams for validation	2	3	-	-
	PC11. carry out measurements and incorporate tolerances accurately in the CAD design	2	3	-	-
	PC12. ensure CAD models comply with product specifications and tooling standard	2	2	-	-
	<i>Documentation and Technical Communication</i>	9	17	-	-
	PC13. recognize and record tooling specifications, dimensions, and design revisions	2	3	-	-
	PC14. discuss and conduct reviews with engineers, toolmakers, and production staff	1	2	-	-

	PC15. ensure documentation is complete, clear, and accessible for production purposes	1	3	-	-
	PC16. state changes or recommendations required for mould or die improvement	1	2	-	-
	PC17. mention critical features, material considerations, and safety requirements in documentation	2	3	-	-
	PC18. display technical documentation effectively to support production and quality teams	2	4	-	-
	<i>Perform Quality and Design Verification</i>	11	13	-	-
	PC19. point out potential errors or inconsistencies in CAD models	2	2	-	-
	PC20. apply basic simulation or analysis tools to check feasibility of die and mould design	2	2	-	-
	PC21. perform verification against product specifications and tooling constraints	1	3	-	-
	PC22. develop corrective actions for design discrepancies	2	2		
	PC23. conduct final checks before handing over CAD models for production	2	2	-	-
	PC24. ensure adherence to safety, quality, and dimensional accuracy standards	2	2	-	-
	Total Marks	40	60	-	-
RSC/N4320: Support in Die and Mould Design Documentation	<i>Compile and Organize Design Documentation</i>	13	21	-	-
	PC1. identify key design parameters, product specifications, and tooling requirements	3	3	-	-
	PC2. list out material properties, dimensions, tolerances, and manufacturing constraints	2	3	-	-
	PC3. understand standard documentation formats, drawing conventions, and industry requirements	2	3	-	-
	PC4. summarize design changes, revisions, and updates in a clear, organized manner	2	5		
	PC5. point out inconsistencies, missing information, or errors in existing design documents	2	4		
	PC6. discuss the compiled documentation with supervisors or engineers to confirm completeness	2	3		
	<i>Assist in the Preparation and Verification of Technical Documents</i>	14	19	-	-
	PC7. apply CAD and design software to extract specifications, drawings, and component details for documentation	2	3	-	-
	PC8. develop detailed records of die and mould components, assembly instructions, and operational notes	2	4	-	-
	PC9. ensure accuracy, completeness, and clarity of documentation for production and quality teams	3	3	-	-

	PC10. perform cross-checks to verify design data against product and tooling requirements	3	3	-	-
	PC11. conduct reviews with engineers or supervisors to validate correctness and feasibility of documentation.	2	3	-	-
	PC12. state updates or revisions required based on feedback from team members	2	3	-	-
	<i>Communication and Collaboration</i>	13	20	-	-
	PC13. discuss design details, changes, and updates with engineers, toolmakers, and production staff	3	3	-	-
	PC14. display and show technical drawings, specifications, and design documents for team review	2	3	-	-
	PC15. recognize and mention critical features, safety considerations, and design constraint	3	3	-	-
	PC16. carry out updates and modifications in documentation based on feedback	2	4		
	PC17. ensure proper version control and accessibility of all design documents	2	4		
	PC18. point out potential improvements or discrepancies in design documentation for continuous enhancement	3	3		
	Total Marks	40	70	0	0
RSC/N5007: Follow health & safety protocol	<i>Maintain a clean and efficient workplace</i>	9	21	-	-
	PC1. undertake basic safety checks before operation of all machinery and equipment and report hazards to the appropriate supervisor	2	2	-	-
	PC2. work for which protective clothing or equipment is required is identified and the appropriate protective clothing or equipment is used in performing these duties in accordance with workplace policy	2	2	-	-
	PC3. read and understand the hazards of use and contamination mentioned on the labels of chemicals, utilities etc	-	2	-	-
	PC4. prior to performing manual handling jobs, risk is assessed and work is carried out according to currently recommended safe practices.	2	2	-	-
	PC5. use equipment and materials safely and correctly and return the same to designated storage when not in use	1	2	-	-
	PC6. dispose off waste safely and correctly in a designated area	2	4	-	-
	PC7. risks to bystanders are recognized and action taken to reduce risk associated with jobs in the workplace	-	2	-	-
	PC8. perform work in a manner which minimizes environmental damage	-	2	-	-
	PC9. all procedures and work instructions for controlling risk are followed closely	-	1	-	-

PC10. report any accidents, incidents or problems without delay to an appropriate person and take immediate necessary action to reduce further danger	-	2	-	-
<i>Render appropriate emergency procedures</i>	9	18	-	-
PC11. follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to emergency.	2	4	-	-
PC12. follow emergency procedures as per company standards and workplace requirements	2	4	-	-
PC13. use emergency equipment in accordance with manufacturers' specifications and workplace requirements	2	4	-	-
PC14. provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques.	-	1	-	-
PC15. recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate	-	2	-	-
PC16. dispose off medical waste in accordance with workplace requirements	-	1	-	-
PC17. report details of first aid administered in accordance with work place procedures	3	2	-	-
<i>Maintain standard safety procedures at the workplace</i>	6	15	-	-
PC18. comply with general safety procedures	2	4	-	-
PC19. follow standard safety procedures while handling equipment, hazardous material or tool	-	2	-	-
PC20. check parts of the workplace and take preventive actions like spraying and other steps to protect from leakages, water logging, pests, fire, pollution, etc.	2	4	-	-
PC21. ensure no accidents and damages at the workplace, reporting of any breach of company safety procedure	-	1	-	-
PC22. keep the workplace organized, swept, clean and hazard free	2	4	-	-
<i>Participate in safety awareness campaigns</i>	2	8	-	-
PC23. attend fire drills and other safety related workshops organized at the workplace	1	3	-	-
PC24. be aware of first aid, evacuation and emergency procedures	1	3	-	-
PC25. be alert of any events and do not be negligent to any safety procedures to be followed	-	2	-	-
<i>Understand potential sources of accidents</i>	1	3	-	-
PC26. avoid accidents while using hazardous chemicals, machines, sharp tools and equipment	1	3	-	-
<i>Use safety gears to avoid accidents</i>	3	5	-	-

	PC27. use safety materials such as protective gear, goggles, caps, shoes, etc. (as applicable with workplace)	2	2	-	-
	PC28. handle heavy and hazardous materials with care and using appropriate tools and handling equipment such as trolleys, ladders	1	3	-	-
	Total Marks	30	70	0	0
DGT/VSQ/N0102 - Employability Skills (60 hours)	<i>Introduction to Employability Skills</i>	1	1	-	-
	PC1. identify employability skills required for jobs in various industries	-	-	-	-
	PC2. identify and explore learning and employability portals	-	-	-	-
	<i>Constitutional values – Citizenship</i>	1	1	-	-
	PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
	PC4. follow environmentally sustainable practices	-	-	-	-
	<i>Becoming a Professional in the 21st Century</i>	2	4	-	-
	PC5. recognize the significance of 21st Century Skills for employment	-	-	-	-
	PC6. practice the 21st Century Skills such as Self- Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
	<i>Basic English Skills</i>	2	3	-	-
	PC7. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
	PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
	PC9. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
	<i>Career Development & Goal Setting</i>	1	2	-	-
	PC10. understand the difference between job and career	-	-	-	-
	PC11. prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
	<i>Communication Skills</i>	2	2	-	-
	PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
	PC13. work collaboratively with others in a team	-	-	-	-
	<i>Diversity & Inclusion</i>	1	2	-	-
	PC14. communicate and behave appropriately with all genders and PwD	-	-	-	-

PC15. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
<i>Financial and Legal Literacy</i>	2	3	-	-
PC16. select financial institutions, products and services as per requirement	-	-	-	-
PC17. carry out offline and online financial transactions, safely and securely	-	-	-	-
PC18. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
<i>Essential Digital Skills</i>	3	4	-	-
PC20. operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
PC22. use basic features of word processor, spreadsheets, and presentations	-	-	-	-
<i>Entrepreneurship</i>	2	3	-	-
PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
<i>Customer Service</i>	1	2	-	-
PC26. identify different types of customers	-	-	-	-
PC27. identify and respond to customer requests and needs in a professional manner.	-	-	-	-
PC28. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	2	3	-	-
PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC31. apply to identified job openings using offline/online methods as per requirement	-	-	-	-
PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-

	PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
	Total Marks	20	30	0	0
	Grand Total	150	300	0	0

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 SDMS/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:

- Confirm that the centre is available at the same address as mentioned on SDMS or SIP
- Check the duration of the training.
- Check the Assessment Start and End time to be as 10 a.m. and 5 p.m.
- 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.
- Check the mode of assessment—Online (TAB/Computer) or Offline (OMR/PP).
- Confirm the number of TABs on the ground are correct to execute the Assessment smoothly.
- Check the availability of the Lab Equipment for the particular Job Role.

3. Assessment Quality Assurance levels / Framework:

- Question papers created by the Subject Matter Experts (SME)
- Question papers created by the SME verified by the other subject Matter Experts
- Questions are mapped with NOS and PC
- Question papers are prepared considering that level 1 to 3 are for the unskilled & semi-skilled individuals, and level 4 and above are for the skilled, supervisor & higher management
- Assessor must be ToA certified & trainer must be ToT Certified
- Assessment agency must follow the assessment guidelines to conduct the assessment

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
- Biometric or manual attendance sheet (stamped by TP) of the trainees during the training period
- Time-stamped & geotagged assessment (Theory + Viva + Practical) photographs & videos

5. Method of verification or validation:
 - Surprise visit to the assessment location
 - Random audit of the batch
 - Random audit of any candidate
6. Method for assessment documentation, archiving, and access
 - Hard copies of the documents are stored
 - Soft copies of the documents & photographs of the assessment are uploaded / accessed from Cloud Storage
 - Soft copies of the documents & photographs of the assessment are stored in the Hard Drives

On the Job:

1. Each module (which covers the job profile of Jr. Designer Plastic Products) will be assessed separately.
2. The candidate must score 70% 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
 - Answer Sheets of Question Banks
 - Assessing the Log Book entries of Trainees at Employer location
 - Employer Performance Feedback.
4. Assessment of each Module will ensure that the candidate is able to:
 - Assisting designer in designing die and moulds for plastic

Annexure: Acronym and Glossary

Acronym

Acronym	Description
NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
SOP	Standard operating procedure
LOTO	Lock Out Tag Out
PPE	Personal Protective Equipment
PwD	Persons with Disabilities
POSH	Prevention Of Sexual Harassment Policy At Workplace
4Ps	Product, Price, Place and Promotion

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