QUALIFICATION FILE

Industrial Design Technology

☒ **Worldskills** ☐ **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: NSQF Level 4.5

Submitted By:

Media & Entertainment Skills Council

522-524, DLF Tower-A, Jasola, New Delhi

110025

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Section 1: Basic Details

1.	**Qualification Name**	Industrial Design Technology	
2.	**Sector/s**	**Media & Entertainment**	
3.	**Type of Qualification:** ☒ **New** ☐ **Revised** ☐ **Has Electives/Options** ☐ **OEM**	**NQR Code & version of existing/previous qualification:** *(change to previous, once approved)*	**Qualification Name of existing/previous version:**
4.	a. **OEM Name** b. **Qualification Name** *(Wherever applicable)*	**Industrial Design Technology**	
5.	**National Qualification Register (NQR) Code &Version** *(Will be issued after NSQC approval)*	QG-4.5-ME-01817-2024-V1-MESC	**6. NCrF/NSQF Level: :** *NSQF Level 4.5*
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**	Industrial design technology is the creation of a product designed for mass consumption. It must succeed in both form (appearance) and function, and promote efficient manufacture. It must be technically feasible to produce, and meet a genuine need in the marketplace, at an acceptable price.	
9.	**Eligibility Criteria for Entry for Student/Trainee/Learner/Employee**	a. **Entry Qualification & Relevant Experience:** See sub-table below b. **Age: Maximum 25 years**	
10.	**Credits Assigned to this Qualification, Subject to Assessment** *(as per National Credit Framework (NCrF))*	17	**11. Common Cost Norm Category (I/II/III)** *(wherever applicable)*: *I*
12.	**Any Licensing requirements for Undertaking Training on This Qualification** *(wherever applicable)*	NA	

a. Entry Qualification & Relevant Experience:

S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)
1.	2nd Year of Graduation in related field	NA
2.	Graduate in Design related field	NA

13.	**Training Duration by Modes of Training Delivery** *(Specify **Total Duration** as per selected training delivery modes and as per requirement of the qualification)*	☐Offline ☐Online ☒ Blended					
		Training Delivery Modes	**Theory (Hours)**	**Practical (Hours)**	**OJT Mandatory (Hours)**	**OJT Recommended (Hours)**	**Total (Hours)**
		Classroom (offline)	150	360			510
		Online					
		(Refer Blended Learning Annexure for details)					
14.	**Aligned to NCO/ISCO Code/s** *(if no code is available mention the same)*	*NCO-2015-2166.0501*
15.	**Progression path after attaining the qualification** *(Please show Professional and Academic progression)*	
16.	**Other Indian languages in which the Qualification & Model Curriculum are being submitted**	
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 If "Yes", specify applicable type of Disability:
19.	**How Participation of Women will be Encouraged**	
20.	**Are Greening/ Environment Sustainability Aspects Covered** *(Specify the NOS/Module which covers it)*	☐ 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** *(In case of CS or MS, provide details of both Lead AB & Supporting ABs)*	**Name: Mohit Soni** **Position in the organization: Chief Executive Officer** **Address if different from above:** **Tel number(s): 01149048335/ 49048336** **E-mail address: ceo@mescindia.org**
23.	**Final Approval Date by NSQC:** 8-Feb-2024	**24. Validity Duration: 2 Years** **25. Next Review Date:** 7-Feb-2026

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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/NS QF 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.	Work organization and management	MES/N0571	Core	4.5	2	15	45			60	2	6		2	10	10
2.	Market research and ideas formation	MES/N0572	Core	4.5	2	15	45			60	2	6		2	10	10
3.	The design process	MES/N0573	Core	4.5	2	15	45			60	2	6		2	10	15
4.	Drawing, illustration, and graphic	MES/N0574	Core	4.5	3	30	60			90	4	12		4	20	20
5.	Materials science and engineering	MES/N0575	Core	4.5	2	15	45			60	2	6		2	10	15
6.	The development process	MES/N0576	Core	4.5	3	30	60			90	4	12		4	20	20
7.	Implementation	MES/N0577	Core	4.5	3	30	60			90	4	12		4	20	10
Duration (in Hours) / Total Marks				4.5	17	150	360			510	20	60		20	100	100

Elective NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version *(if applicable)*	Core/ Non-Core	NCrF/NS QF 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/NS QF 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: __70__ % *(Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)*

Minimum Pass Percentage – NOS/Module-wise: __70__ % *(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)*	Graduate in Industrial Design with 3 years of experience in Industrial Design with 1 Year experience in training/teaching.

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		Post-Graduate in Industrial Design with 2 Years of Experience in Industrial Design with 1 Year experience in training/Teaching.
2.	**Master Trainer's Qualification and experience in the relevant sector (in years)** *(as per NCVET guidelines)*	Graduate in Industrial Design with 5 years of experience in Industrial Design with 1 Year experience in training/teaching. Post-Graduate in Industrial Design with 3 Years of Experience in Industrial Design with 1 Year experience in training/Teaching.
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**	

Section 4: Assessment Related

1.	**Assessor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	Graduate in Industrial Design with 10 years of experience in Industrial Design. Post-Graduate in Industrial Design with 10 Years of Experience in Industrial Design.
2.	**Proctor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	Graduate in Industrial Design with 3 years of experience in Industrial Design.
3.	**Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	Post-Graduate in Industrial Design with 15 Years of Experience in Industrial Design.
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):** YES
2.	**Latest Market Research Reports or any other source (not older than 2 years) (Yes/No):** YES
3.	**Government /Industry initiatives/ requirement (Yes/No):** YES Worldskills
4.	**Number of Industry validation provided:** NA

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5.	**Estimated nos. of persons to be trained and employed:**
6.	**Evidence of Concurrence/Consultation with Line Ministry/State Departments:** *NA* 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)*	*Filled*
2.	**Annexure:** List of tools and equipment relevant for qualification *(Mandatory, except in case of online course)*	*Filled*
3.	**Annexure:** Detailed Assessment Criteria *(Mandatory)*	*Filled*
4.	**Annexure:** Assessment Strategy *(Mandatory)*	*Filled*
5.	**Annexure:** Blended Learning *(Mandatory, in case selected Mode of delivery is "Blended Learning")*	*Filled*
6.	**Annexure:** Multiple Entry-Exit Details *(Mandatory, in case qualification has multiple Entry-Exit)*	
7.	**Annexure:** Acronym and Glossary *(Optional)*	*Filled*
8.	**Supporting Document:** Model Curriculum *(Mandatory – Public view)*	
9.	**Supporting Document:** Career Progression *(Mandatory - Public view)*	
10.	**Supporting Document:** Occupational Map *(Mandatory)*	
11.	**Supporting Document:** Assessment SOP *(Mandatory)*	
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

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Professional Theoretical Knowledge/Process	• Work organization and management • Market research and ideas formation • The design process • Drawing, illustration, and graphic • Materials science and engineering • The development process • Implementation	The practical and theoretical knowledge required by the individual align with the ones as described for NSQF Level 4.5	NSQF Level 4.5
Professional and Technical Skills/ Expertise/ Professional Knowledge	• Work organization and management • Market research and ideas formation • The design process • Drawing, illustration, and graphic • Materials science and engineering • The development process • Implementation	The professional skills and expertise required by the individual align with the ones as described for NSQF Level 4.5	NSQF Level 4.5
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	• Work organization and management • Market research and ideas formation • The design process • Drawing, illustration, and graphic	The readiness and mindset required by the individual align with the ones as described for NSQF Level 4.5	NSQF Level 4.5

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	- Materials science and engineering - The development process - Implementation		
Broad Learning Outcomes/Core Skill	- Work organization and management - Market research and ideas formation - The design process - Drawing, illustration, and graphic - Materials science and engineering - The development process - Implementation	The Learning outcome of the individual align with the ones as described for NSQF Level 4.5	NSQF Level 4.5
Responsibility	- Work organization and management - Market research and ideas formation - The design process - Drawing, illustration, and graphic - Materials science and engineering - The development process - Implementation	The responsibilities of the individual align with the ones as described for NSQF Level 4.5	NSQF Level 4.5

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Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size:

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1.	High-Performance Computers		
2.	CAD (Computer-Aided Design) Software		
3.	3D Modeling Software		
4.	Digital Calipers and Measurement Tools		
5.	High-Resolution Monitors		
6.	Ergonomic Furniture		
7.	Drawing Tablets		
8.	Visualization Tools (Sketching Software, Rendering Software)		
9.	Mockup and Model Making Tools		
10.	Rapid Prototyping Tools		
11.	Color Calibration Tools		
12.	Projector		
13.	Whiteboards or Flipcharts		
14.	Online Collaboration Tools		
15.	Mock Client Projects		

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Laptops
2. Whiteboards and markers
3. Projector
4. Screen
5. Stationery

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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)*

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

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 d	Certifie d	Placed

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.
2.

Content availability for previous versions of qualifications:

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

Languages in which Content is available:

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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	LCD, Projector, Laptop, MSOffice Suite, Flipchart, whiteboard, Markers, wi-fi connectivity	50:50
2	☐Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners		
3	☐Showing Practical Demonstrations to the learners	LCD, Projector, Laptop, MSOffice Suite, various tools and software, computer camera, computer speakers, wi-fi connectivity	50:50
4	☐Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	Computer systems for all students, printers, wi-fi connectivity	50:50
5	☐Tutorials/ Assignments/ Drill/ Practice	Learning management system	0:100
6	☐Proctored Monitoring/ Assessment/ Evaluation/ Examinations	Online assessment portals, tablet for each student	0:100
7	☐On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training	Access to industry partner in relevant field	100:0

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
Work organization and management	• Apply safe working methods personally and for others				
	• Select and keep to efficient and effective work methods and habits				
	• Estimate time requirements for each phase of the design process, and create timelines				
	• Select and use appropriate planning and management tools				

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	• Maintain orderly and secure work areas				
	• Maintain work records as required and helpful				
	• Minimize distractions that impact on own effectiveness and efficiency				
	• Respond positively to formal and informal opportunities to learn and update knowledge and expertise				
	Total Marks	2	6		2
Market research and ideas formation	• Receive and mentally process information and requests				
	• Participate in new market research and product planning				
	• Review the relationship of potential new products to the organization's product range and plans				
	• Review the relationship of potential new products to the organization's product range and plans				
	• Investigate the potential need and benefit of new products and product lines using suitable research methods				
	• Draw conclusions from the market research				
	• Maintain records of the market research and thinking process				
	Total Marks	2	6		2
The design process	• Conduct research into trends in design				
	• Conceive or receive a design idea				
	• Through market research and consultation, create, realize, and evaluate design concepts for manufacturing				

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	• Evaluate the feasibility of design ideas, relative to • Appearance • Safety • Function, • Serviceability • Budget • Production methods and costs • Market characteristics				
	• Modify and refine design ideas, based on the above factors				
	• Complete the design process within the parameters of the business or commission.				
	Total Marks	2	6		2
Drawing, illustration, and graphics	• Explore ways of articulating design ideas visually				
	• Prepare sketches, iteratively, exploring options and results				
	• implement decisions regarding colour, visual materials' properties, and composition				
	• Create • detailed drawings • illustrations • artwork or blueprints				
	• use drafting instruments and tools				
	• use CAD software				
	• Draft, lay out, and specify technical devices, plants and equipment				
	• Update sketches, drawings, and documentation as development proceeds				
	• maintain document control throughout the design process.				
	Total Marks	4	12		4

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Materials science and engineering	• Consult with engineers and/or other knowledge sources to plan tests and prototypes				
	• Select and specify machines and tools for prototyping				
	• Identify and apply relevant procedures and regulations to the testing and prototyping process				
	• Determine the purposes, range and scope of tests and prototypes				
	• Put in place measures to ensure the validity of information and data collected				
	• Conduct tests and prototyping				
	• Collect planned information and data for analysis				
	• Review the implications of the analysis for • The manufacturing process, and outcomes, and • the selection and use of materials.				
Total Marks		2	6		2
The development process	• Research production specifications, costs, production materials, and manufacturing methods				
	• Provide cost estimates and itemized production requirements				
	• Build models, patterns, or templates				
	• Fabricate models or samples in a range of materials, using hand and power tools				

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	• Monitor processes, materials, and surroundings to detect or assess problems				
	• Collect and process information by compiling, categorizing, calculating, and verifying information and data				
	• Select and use suitable and robust testing equipment, tools, methods, and techniques				
	• Analyse and evaluate information to determine compliance with standards				
	• Determine time, costs, resources, or materials needed for production				
	• Present designs and reports to clients or managers for approval				
	• Raise and discuss the needs for and benefits of modification				
	• Techniques for optimizing manufacture and distribution				
	• Review, adapt, and provide documentation, detailed instructions/specifications, or drawings, for fabrication, construction, assembly, modification, maintenance and use				
	Total Marks	4	12		4
Implementation	• Develop industrial standards and regulatory guidelines				
	• Check the relationship of the product to the organization's business strategy and plan				
	• Develop promotional strategies or plans for the product				

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	● Develop artistic or design concepts for decoration, exhibition, or commercial purposes				
	● Design graphic material for use as ornamentation, illustration, advertising, and packaging				
	● Present evaluation reports, including • Handling and safety • Market appeal • Production efficiency • Distribution. • Use • Maintenance.				
	Total Marks	4	12		4
	Grand Total	20	60		20

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.

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Annexure: Acronym and Glossary

Acronym

onym	Description
	Assessment Agency
	Awarding Body
)	International Standard Classification of Occupations
)	National Classification of Occupations
F	National Credit Framework
S	National Occupational Standard(s)
R	National Qualification Register
F	National Skills Qualifications Framework
	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

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	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