

QUALIFICATION FILE

Smartphone Assembly Technician

☒ 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: 4

Submitted By:

Electronics Sector Skills Council of India (ESSCI)

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Section 1: Basic Details

1.	Qualification Name	Smartphone Assembly Technician													
2.	Sector/s	Electronics													
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing/previous qualification: (change to previous, once approved)- 2022/EHW/ESSC/06639 & V 3	Qualification Name of existing/previous version: Smartphone Assembly Technician												
4.	a. OEM Name b. Qualification Name (Wherever applicable)	NA													
5.	National Qualification Register (NQR) Code & Version (Will be issued after NSQC approval)	QG-04-EH-044762025-V2-ESSCI	6. NCrf/NSQF Level: 4												
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	A Smartphone assembly technician is responsible for interpreting assembly instructions, blueprint specifications, etc. to assemble or fix smartphone parts/components in correct position and alignment using approved techniques and equipment in a production unit.													
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>12th grade or equivalent</td> <td>NA</td> </tr> <tr> <td>2</td> <td>10th grade or equivalent</td> <td>3-year relevant experience.</td> </tr> <tr> <td>3</td> <td>Certificate-NSQF (Level-3in relevant domain) with</td> <td>3 Years of relevant Experience</td> </tr> </tbody> </table> # Relevant Experience in Communication & Broadcasting		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	12 th grade or equivalent	NA	2	10 th grade or equivalent	3-year relevant experience.	3	Certificate-NSQF (Level-3in relevant domain) with	3 Years of relevant Experience
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)													
1	12 th grade or equivalent	NA													
2	10 th grade or equivalent	3-year relevant experience.													
3	Certificate-NSQF (Level-3in relevant domain) with	3 Years of relevant Experience													
		b. Age: NA													

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																						
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 <table border="1"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>OJT Recommended (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>00:00</td> <td>180:00</td> <td>90:00</td> <td>00:00</td> <td rowspan="2">450</td> </tr> <tr> <td>Online</td> <td>180:00</td> <td>00:00</td> <td>00:00</td> <td>00:00</td> </tr> </tbody> </table> (Refer Blended Learning Annexure for details)						Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	00:00	180:00	90:00	00:00	450	Online	180:00	00:00	00:00	00:00
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Classroom (offline)	00:00	180:00	90:00	00:00	450																			
Online	180:00	00:00	00:00	00:00																				
14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/7422.2301																						
15.	Progression path after attaining the qualification (Please show Professional and Academic progression)	Assembly Supervisor																						
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 If "Yes", specify applicable type of Disability:																						
19.	How Participation of Women will be Encouraged	No gender sensitization																						
20.	Are Greening/ Environment Sustainability Aspects Covered (Specify the NOS/Module which covers it)	☒ Yes ☐ No (Employability Skills (30 hours)																						
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: Saleem Ahmed Email: ceo@essc-india.org Contact No.: 011 – 8447738501 Website: https://www.essc-india.org/																						

23. Final Approval Date by NSQC: 07.10.2025	24. Validity Duration: 3 Years	25. Next Review Date: 07.10.2028
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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/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	Smartphone Pre-Assembly & Setup	ELE/N3902 & V1.0	Core	4	7	90	90	30	0	210	40	60	0	0	100	40
2	Smartphone Component Integration and Commissioning	ELE/N3903 & V1.0	Core	4	7	60	90	60	0	210	40	60	0	0	100	40
3	Employability Skills (30 hours)	DGT/VSQ/N0101 & V1.0	Non-core	4	1	30	0	0	0	30	20	30	0	0	50	20
Duration (in Hours) / Total Marks					15	180	180	90	0	450	100	150	0	0	250	100

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: 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)	Diploma/ITI (Mechanical/Electronics/Electrical) with 1 years industrial and 1 year training experience in the field of Electronics.
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		Or Certified in relevant CITS Trade
2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Diploma/ITI (Mechanical/Electronics/Electrical) with 2 years industrial and 1 year training experience in the field of Electronics. Or Certified in relevant CITS Trade
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)	Diploma/ITI (Mechanical/Electronics/Electrical) with 2 years industrial and 1 year training experience in the field of Electronics. Or Certified in relevant CITS Trade
2.	Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Diploma/ITI (Mechanical/Electronics/Electrical) with 3 years industrial and 2 year training experience in the field of Electronics. Or Certified in relevant CITS Trade
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Diploma/ITI (Mechanical/Electronics/Electrical) with 4 years industrial and 3 year training experience in the field of Electronics. Or Certified in relevant CITS Trade.
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
4.	Number of Industry validation provided: 28
5.	Estimated nos. of persons to be trained and employed: 2500
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)	Attached
2.	Annexure: List of tools and equipment relevant for qualification (Mandatory, except in case of online course)	Attached
3.	Annexure: Detailed Assessment Criteria (Mandatory)	Attached
4.	Annexure: Assessment Strategy (Mandatory)	Attached
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)	Filled
7.	Annexure: Acronym and Glossary (Optional)	Attached
8.	Supporting Document: Model Curriculum (Mandatory – Public view)	Attached
9.	Supporting Document: Career Progression (Mandatory - Public view)	Attached
10.	Supporting Document: Occupational Map (Mandatory)	Attached

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
Professional Theoretical Knowledge/Process	Demands a wide range of specialized technical skill, clarity of knowledge and practice in broad range of activity involving standard and non-standard practices. • Perform the assembly procedure. • Follow all guidelines and instructions • Adhere to industry work practices to achieve productivity and quality standards. • Check the working of the smartphone.	A Smartphone Assembly Technician is responsible for carrying out assembly operation of smartphone in a production unit as per assembly instructions and standard operating procedures. Hence Level 4	4
Professional and Technical Skills/ Expertise/ Professional Knowledge	Factual and theoretical knowledge in broad contexts within a field of work or study. • Knowledge of various materials, assembly processes, working of smartphones. • Know the instructions and guidelines to achieve productivity and quality standards	A Smartphone Assembly Technician should know the different processes involved in assembly of various smartphones, their working and the guidelines to achieve productivity and quality standards. Hence Level 4	4
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study.	A Smartphone Assembly technician should be able to use basic tools in correct way to assemble the smartphones. He/she works after getting work requirements from supervisor or other team members Hence Level 4	4

	• Communicate with customer, team and supervisor to understand the work requirement • Identify the errors in orders • Maintain inventory • Complete the documentation of maintenance and service records		
Broad Learning Outcomes/Core Skill	• Assembly procedures • Working of various smartphones • Guidelines and instructions for assembly	A Smartphone Assembly technician needs to know the assembly procedures, working of various smartphones. The technician should keep the workplace clean and managed Hence Level 4	4
Responsibility	Responsibility of completing the work assigned and reporting the same as per standards. • Understand the job role and follow the organizational policy • Record and report about the work status • Follow safety regulations at work place • Work along with colleagues and supervisors	A Smartphone Assembly technician should record the issues and report about the same to supervisor and also update the status of the work as per organizations policy. Hence Level 4	4

Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Specifications	Quantity for specified Batch size
1	Main Parts Of smartphone	Nos	10
2	Bare PCBs. Of smart Phone	Nos	8
3	Assembled PCBs.	Nos	10
4	Front Cover	Nos	10
5	Back Cover	Nos	10
6	SMD Components Used In smart phones	Nos	20

7	Soldering Iron	Nos	6
8	Cleaning Sponge	Nos	6
9	Hot Air Blower (Repair)	Nos	4
10	PCB Holder/ PCB Stand	Nos	8
11	Solder Wire	gm	250
12	Solder Flux	Nos	5
13	Solder Paste	Nos	3
14	Desoldering Wire	Nos	5
15	PCB Cleaner	ml	250
16	ESD Footwear Tester	Nos	2
17	Precision Screwdriver	Nos	4
18	Torque Screwdriver Set	Nos	4
19	Screwdriver Set	Nos	2
20	Tweezers	Nos	8
21	ESD Safe Cleaning Brush	Nos	6
22	ESD Coat	Nos	6
23	ESD Gloves	Pair	6
24	ESD Sleeper	Pair	6
25	ESD Wrapper	Pair	6
26	ESD Tester	Nos	2
27	ESD Mat	Nos	5
28	ESD Wrist Band	Nos	8
29	Line Tester	Nos	4
30	Multimeter	Nos	6
31	Ultrasonic Cleaner	ml	250
32	BGA Kit	Nos	2
33	Magnifying Lamp	Nos	6
34	Mobile Opener	Nos	5
35	Insulation Tape	Nos	2
36	Double Sided Tape	Nos	2
37	File	Nos	2
38	Automatic Screwing Machine	Nos	1
39	Automatic Compression Machine	Nos	1
40	Testing Jig	Nos	2
41	Wire Strippers	Nos	6
42	LCD, front shell, TP, receiver, sensor sleeve,	NOS	As per required

	camera, vibrator, Speaker, connectors, RF cable, antenna, middle cover, battery, back cover, lens		
43	Automatic screwing machine, compression machine, Pick & Place Machine, Reflow Soldering Machine, AOI Solder Paste	NOS	As per required
44	DC Power Supply	Nos	1

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Whiteboard
2. Projector
3. Computer/Laptop
4. Chairs
5. Tables
6. Whiteboard marker

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	10G Network Solutions	Dileep Kumar Gupta	Owner	98-D, First Floor, Hari Nagar ashram, New Delhi 110014	9560002524	dg@10gnsindia.com	
2	Access Edutech Pvt. Ltd.	Sanjay Kumar Mishra	Director	96, Vrindavan Nagar Ayodhya Bypass Road Bhopal	7000650224	sanjaymishra@accessedutech.com	
3	Artificial Intelligence Technologies	Rohit Kumar Sharma	Manager Product Development	A-21, sector 4, Block A, Kailash Colony, Greater Kailash, New Delhi	9927564461	rohit.sharma@aituniversal.com	

4	Bergen Associates Pvt Ltd.	Soubam Sunil	Manager	305-306, Magnum House-I, Commercial Complex, Karampura, New Delhi – 110015	9311780832	s.soubam@bergengroupindia.com	
5	Conduent- https://www.conduent.com	Prince Jain	Senior Business Analyst	7 to 9th Floor & 6 to 9th Floor, Building No.5 & 6, Plot No 20&21, Candor Tech Space, IT/ITES SEZ., Noida, Uttar Pradesh 201304	8439385780	prince.jain@conduent.com	
6	Cyberace Infovision Pvt. Ltd.	Pushp Chauhan	Director	253, D21 Corporate park Sector 21, Dwarka, Delhi 110075	9560399911	pushp@cyberace.on	
7	Ephicacy Lifescience Analytics	Rahul Kumar Kaushik	Senior Software Engineer	2nd Main Rd, Sarvobhogam Nagar, Arekere, Bengaluru, Karnataka 560076	8859885973	Rahul.Kaushik@ephicacy.com	
8	Inspira Enterprisr India Pvt. Ltd.	Radhey Shyam	Solution Architech	New Delhi 110001	9868856821		
9	IIAE Educational Society	Barinder Singh	President		9829745313	ivyindiaprojects@gmail.com	
10	Nagravision India Pvt. Ltd.	Avinash Yadav	Manager- System Administrator	RMZ Centennial, Tower C unit 301 and 302, Mahadevapura Post ITPL Road, Bangalore	9808326626	avinash.yadav@nagra.com	
11	Ramyash Pvt ITI	Ramyash	Principel	Jamalpur	9454738298	Yashvantyadav964@gmail.com	
12	Nexgen Exhibitions Pvt. Ltd.	Saurabh Purwar	Director	1201/1206 Pragati Tower, 26 Rajendra Place, New Delhi- 110008, India	9457306691	fbvidgo@gmail.com	
13	ISTC	Shubham		Pune	9112273488		

14	Siemens Limited	Manoj Belgaonkar	Head – Regulations, Standards and QM	R&D Centre, Thane Belapur Road, Airoli, Navi Mumbai 400708	9820682825	manoj.belgaonkar@siemens.com	
15	Tata Consultancy Services	Sheepra Kaushik	Consultant – Product Development	Kensington B Wing, Hiranandani SEZ, Powai, Mumbai 400076	8433595090	sheepra.sharma@tcs.com	
16	Evergreen Education Trust	Faizanbazaz	Director	217, Pehari Colony Jammu 180005	7006341193	eetturst@gmail.com	
17	B M Upadhyay Shiksha Samiti	K K Upadhyay	SPOC	Agra	9149158684	Kk7500081234@gmail.com	
18	Shiv shakti techniki evam samanaya shikshan sansthan	Jitendra Kumar Garg	President	B 32 MAHESH NAGAR JAIPUR RAJASTHAN-302015	9782912782	jitendra.garg303@gmail.com	
19	Shri Solasar Balaji Shikshan	Nand Kishor Gurjar	SPOC	Rajasthan	9358734466	shribalajiitisujangarh@gmail.com	
20	Shree Hari Shikshan Santhan Aaspura	Mukesh Kumar	SPOC	Rajasthan 341508	7877239952	Harikct2024@gmail.com	
21	YADUVANSHI PRIVATE ITI	YADVENDRA	PRINCIPAL	TC229199 - Yaduvanshi pvt iti, hasampur the- neemkathana dist-sikar rajasthan pin code no -332718	8432882688	yaduvanshicollege2008@gmail.com	
22	Nagdeo Education Welfare Society	Vijay Nagdeo	General Manager	Ward No. 11 Junnardeo Dist. Chhindwara M.P. 480551	9425461093	Vijaynagdeo02@gmail.com	
23	Shri Prasad Sharma Shikshan Sansthan Myana	Suresh		Gautam Budha Nagar UP	8433476571		

24	Sankalp Education and development society	Jafruddin Khan	SPOC		8104049522		
25	Sri Venkateswara College of Engineering	Dr C Chandrasekhar	Head R &D & Professor in ECE	Karakmbadi Road,Tirupati 517507	9177217190	dr.chandrasekhar.c@svcolleges.edu.in	
26	Rastriya Khushali Sansthan	Ramkaran Sinsinwar	President	VOP Tajsar Fatehpur Rajasthan	6350658040	Rkstajsar1998@gmail.com	
27	Sri Rajaram Shikshan Sansthan	Rajendra Parsad	Principle		8808696968	rajendraitijnp@gmail.com	
28	Voice Technology Pvt. Ltd.	Sunil Kumar	Director	Abdul Aziz Road Karol Bagh New Delhi 110005	9210121038		

Annexure: Training Details

Training and Employment Projections:

Year	Total Candidates	Women	People with Disability
	Estimated Training # Total	Estimated Training # Women	Estimated Training # PwD
2025-26	750	NA	NA
2026-27	750	NA	NA
2027-28	1000	NA	NA

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
3.0	2022-23	1148	1008	901	NA	NA	NA	NA	NA	NA	NA	NA	NA
3.0	2023-24	906	800	768	NA	NA	NA	NA	NA	NA	NA	NA	NA
3.0	2024-25	2694	2149	1901	NA	NA	NA	NA	NA	NA	NA	NA	NA

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. PMKVY
- 2.

Content availability for previous versions of qualifications:

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

Languages in which Content is available:

1. Hindi
2. English
- 3.

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	30:70
2	☒ Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	● Self-Learning Videos ● Broadcasts ● Mobile Learning ● Curated Digital content	30:70
3	☒ Showing Practical Demonstrations to the learners	● Video Content ● E-Resource library ● AR/ VR/ XR	30:70

4	☒ Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	• Training tools (tools list attached) • Video Play • Presentations	30:70
5	☒ Tutorials/ Assignments/ Drill/ Practice	• Online Question Bank • Mobile Quick test app • MCQ based tests	30:70
6	☒ Proctored Monitoring/ Assessment/ Evaluation/ Examinations	• Assessment engine for Essays • Up-loadable file examinations • Mock test sessions	30:70
7	☒ On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training	• Online tests • Offline assessments	30:70

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
ELE/N3902: Smartphone Pre-Assembly & Setup	<i>Introduction and Pre requisites for Assembly</i>	24	35		
	PC1. Describe the role and responsibilities of a Smartphone Assembly Technician; explain the scope of the smartphone manufacturing industry, key components involved (such as display, battery, motherboard, camera, connectors), and career opportunities in electronics manufacturing and service sectors.	3	4		
	PC2. Identify and review assembly instructions, specifications, quality standards, and parts list provided by the concerned authority and verify job requirements by cross-checking product specifications and work instructions from approved sources.	3	4		
	PC3. Coordinate with relevant team members for efficient workflow and process execution.	3	4		
	PC4. Gather necessary tools/equipment such as screwing machine, compression tools, and consumables in working condition.	3	4		
	PC5. Inspect and sort required components (LCD, rear & middle cover, touch panel, etc.) as per work order.	3	4		

	PC6. Conduct quality checks on components and raw materials to ensure no physical damage or defects.	3	5		
	PC7. Perform stepwise inspection of previous assembly stages to ensure completeness before proceeding.	3	5		
	PC8. Confirm that Printed Circuit Board Assembly (PCBA) is tested and validated for further assembly.	3	5		
	<i>Initial Component Handling and Pre Assembly Steps</i>	16	25		
	PC9. Select the appropriate assembly method (manual or machine-based) according to work instructions.	3	5		
	PC10. Remove protective films, stickers, and unnecessary packaging from components using approved techniques.	3	5		
	PC11. Handle the LCD module in an Electrostatic Discharge (ESD)-safe environment to prevent damage.	3	5		
	PC12. Clean components with industry-approved solutions (e.g., isopropyl alcohol) to remove dust and contaminants.	3	5		
	PC13. Organize the workspace and ensure compliance with safety standards before proceeding with assembly.	4	5		
	NOS TOTAL	40	60	-	0
ELE/N3903: Smartphone Component Integration and Commissioning	<i>Assembly and Fixing of Components</i>	20	30		
	PC1. Securely assemble components (LCD, screen connectors, batteries, processors and covers, etc.) following approved procedures.	2	3		
	PC2. Attach the Printed Circuit Board Assembly (PCBA) onto the middle cover/case using proper fastening techniques.	2	4		
	PC3. Carefully mount and secure the LCD screen onto the PCBA as per specifications.	2	3		
	PC4. Apply LCD safety cover tape to protect against dust and contaminants.	3	4		
	PC5. Fix small modules such as SIM tray, SD card slot, and micro-connectors in their designated positions.	3	4		
	PC6. Assemble rear case components, ensuring proper alignment of camera module, vibrator, and speaker.	3	4		
	PC7. Verify that IMEI and serial number markings are accurate as per documentation standards.	3	4		
	PC8. Ensure each completed sub-assembly is placed in an Electrostatic Discharge (ESD) tray after assembly.	2	4		

	<i>Final Fixing Quality Checks and Post Assembly Activities</i>	20	30		
	PC9. Attach RF cables, connectors, and antenna as per design requirements.	2	3		
	PC10. Securely fix the rear cover with the middle cover and complete remaining connector installations.	2	3		
	PC11. Ensure the camera lens is positioned and fixed correctly to maintain optical quality.	2	4		
	PC12. Conduct a final alignment check to verify the precise positioning of all parts before sealing.	2	4		
	PC13. Continuously monitor the assembly line and identify any potential defects or process inefficiencies.	2	3		
	PC14. Confirm that the assembled product adheres to production quality and compliance standards using AI-based alignment tools, and vision inspection systems to ensure proper connectivity of parts like camera modules, motherboards, and sensors.	3	4		
	PC15. Store all tools and unused materials in designated storage areas after use.	2	3		
	PC16. Submit completed smartphone units to the designated department for further testing or packaging.	2	3		
	PC17. Maintain documentation for assembled units, highlighting any deviations or rectifications performed.	3	3		
	NOS Total	40	60		
DGT/VSQ/N0101 - Employability Skills (30 hours)	<i>Introduction to Employability Skills</i>	1	1	-	-
	PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
	<i>Constitutional values – Citizenship</i>	1	1	-	-
	PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
	<i>Becoming a Professional in the 21st Century</i>	1	3	-	-
	PC3. explain 21st Century Skills such as Self Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
	<i>Basic English Skills</i>	2	3	-	-
	PC4. speak with others using some basic English phrases or sentences	-	-	-	-
	<i>Communication Skills</i>	1	1	-	-

PC5. follow good manners while communicating with others	-	-	-	-
PC6. work with others in a team				
Diversity & Inclusion	1	1	-	-
PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC8. report any issues related to sexual harassment	-	-	-	-
Financial & Legal Literacy	3	4	-	-
PC9. use various financial products and services safely and securely	-	-	-	-
PC10. calculate income, expenses, savings etc.	-	-	-	-
PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
Essential Digital Skills	4	6	-	-
PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-
PC13. use internet and social media platforms securely and safely	-	-	-	-
Entrepreneurship	3	5	-	-
PC14. identify and assess opportunities for potential business	-	-	-	-
PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
Customer Service	2	2	-	-
PC16. identify different types of customers	-	-	-	-
PC17. identify customer needs and address them appropriately	-	-	-	-
PC18. follow appropriate hygiene and grooming standards	-	-	-	-
Getting ready for apprenticeship & jobs	1	3	-	-
PC19. create a basic biodata	-	-	-	-
PC20. search for suitable jobs and apply	-	-	-	-
PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
NOS Total	20	30	-	-
Grand Total	100	150	-	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: Each module (which covers the job profile of Smartphone Assembly Technician) will be assessed separately.

1. The candidate must score 50% in each module to successfully complete the OJT.
2. 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.
3. Assessment of each Module will ensure that the candidate is able to:
 - Understand the basic principles of AC, DC and electronic circuits.
 - Work effectively at the workplace
 - Basic health and safety practice.

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