

CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE

Name and address of submitting body:

Electronics Sector Skills Council of India (ESSCI),
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Name and contact details of individual dealing with the submission

Name: Dr. Abhilasha Gaur

Position in the organisation: COO

Address if different from above: Same as above

Tel number(s):

E-mail address: ceo@essc-india.org

List of documents submitted in support of the Qualifications File

1. Model Curriculum

Model Curriculum to be added which will include the following:

- **Indicative list of tools/equipment to conduct the training**
- **Trainers qualification**
- **Lesson Plan**
- **Distribution of training duration into theory/practical/OJT component**

SUMMARY

1	Qualification Title: TV Repair Technician
2	Qualification Code, if any: ELE/Q3101
3	NCO code and occupation: NCO-2015/7421.1301 and After Sales Service
4	Nature and purpose of the qualification (Please specify whether qualification is short term or long term): This is a long-term Qualification, which will enable participants to take up a challenging career as a TV Repair Technician.
5	Body/bodies which will award the qualification: Electronics Sector Skills Council of India
6	Body which will accredit providers to offer courses leading to the qualification: Electronics Sector Skills Council of India
7	Whether accreditation/affiliation norms are already in place or not, if applicable (if yes, attach a copy): Yes
8	Occupation(s) to which the qualification gives access: After Sales Service
9	Job description of the occupation: TV Repair Technician – is responsible for interacting with the customer to install the TV as well as diagnose the problem. The individual also needs to assess possible causes of fault reported and rectify problems/faults.
10	Licensing requirements: N/A
11	Statutory and Regulatory requirement of the relevant sector (documentary evidence to be provided): N/A
12	Level of the qualification in the NSQF: Level 3
13	Anticipated volume of training/learning required to complete the qualification: 420 Hours (Theory:120, Practical:150, OJT:150)
14	Indicative list of training tools required to deliver this qualification: Personal Protective Equipment: safety glasses, head protection, rubber gloves, safety footwear, warning signs and tapes, fire extinguisher, first aid kit, fire extinguishers and warning signs. Basic electrical and electronic components LCD/LED TVs, electrical and mechanical modules, job sheet, manuals, reference sheets, sample warranty forms, wires, different types of screws,

	fuse, tools such as drilling machines, hammer, testers, screw drivers etc., LEDs, photo transistor, ICs, supporting accessories, tools and fitments, brazing sticks, brazing torches, fluxes Basic tool kit: screw driver, multi-meter, clamp meter etc.				
15	Entry requirements and/or recommendations and minimum age: 10th Grade Pass OR 8th Grade Pass + NTC (2 years after 8th) OR 8th Grade Pass + 2 years relevant experience and 18 Years				
16	Progression from the qualification (Please show Professional and academic progression): Service Technician – Home Appliances				
17	Arrangements for the Recognition of Prior learning (RPL): RPL will be based on the same approved Qualification Pack and Assessment Criteria mentioned in the Qualification Pack by Electronics Sector Skills Council of India (ESSCI)				
18	International comparability where known (research evidence to be provided) : Yet to establish				
19	Date of planned review of the qualification: 27.06.2025				
20	Credits Assigned to this Qualification, Subject to Assessment (<i>as per National Credit Framework (NCrF)</i>): 14				
21	Formal structure of the qualification Mandatory components				
	Title of component and identification code/NOSs/Learning outcomes	Estimated size (learning hours)			Level
		Theory	Practical	OJT	
(i)	Bridge Module (Role and Responsibilities of a TV Repair Technician)	20	10	00	3
(ii)	Engage with customer for service (ELE/N3101)	20	40	60	3

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(iii)	Install and repair dysfunctional TVs (ELE/N3102)	20	70	90	3
(iv)	Communicate and coordinate effectively with others (ELE/N9972)	15	15	00	3
(v)	Work effectively, sustainably and safely (ELE/N1003)	15	15	00	3
(vi)	Employability Skills (30 Hours) (DGT/VSQ/N0101)	30	00	00	3
Sub - Total		120	150	150	
Total		420			

SECTION 1

ASSESSMENT

22	Body/Bodies which will carry out assessment: Electronics Sector Skills Council of India
23	How will RPL assessment be managed and who will carry it out? Give details of how RPL assessment for the qualification will be carried out and quality assured. The RPL assessment will be carried out through pre assessment, identifying the skills gaps, provide bridge training to cover the competency gap and then conduct final assessment of the candidates.
24	Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, reliable and fair and show that these are in line with the requirements of the NSQF. Assessment is done through third parties who are affiliated to ESSCI as Assessment Body. Assessors are trained & certified by ESSCI through Training of Assessors program. The assessment involves two processes. The first process is gathering the evidence of the competency of individuals. The second part of the assessment process is the judgement as to whether a person is competent or not. The assessment plan contains the following information: • What will be assessed, i.e. the competency based on each NOS • How assessment will occur i.e. methods of assessment • When the assessment will occur • Where the assessment will take place i.e. context of the assessment (workplace/simulation) • The criteria for decision making i.e. those aspects that will guide judgements and Where appropriate, any supplementary criteria used to make a judgement on the level of performance. The assessment is conducted through theory, viva voce and practical.

Please attach most relevant and recent documents giving further information about assessment and/or RPL.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

ASSESSMENT EVIDENCE

Complete a grid for each component as listed in “Formal structure of the qualification” in the Summary.

NOTE: this grid can be replaced by any part of the qualification documentation which shows the same information – i.e. Learning Outcomes to be assessed, assessment criteria and the means of assessment.

25. Assessment evidences**Title of Component:** TV Repair Technician**CRITERIA FOR ASSESSMENT OF TRAINEES****Job Role** TV Repair Technician**Qualification Pack** ELE/Q3101**Sector Skill Council** Electronics Sector Skills Council of India**Guidelines for Assessment**

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on this criterion.
6. To pass the Qualification Pack, every trainee should score a minimum of 50% of aggregate marks to successfully clear the assessment.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
ELE/N3101: Engage with customer for service				
<i>Interacting with customer</i>	32	41	-	8
PC1. analyse the details of customer complaint registered at customer care or installation schedule	5	6	-	1
PC2. connect with the customer to confirm problem telephonically and fix time for visit	4	6	-	1
PC3. collect appropriate tools, parts, relevant reference sheets, manuals and documents	4	6	-	2

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PC4. visit the customer premises as per the scheduled date and time for service as per the requirement	4	6	-	1
PC5. check about warranty status of appliance and annual maintenance contract	4	6	-	1
PC6. gather detailed information pertaining to age of appliance, status of upkeep, symptoms and history of problems in the appliance	5	6	-	1
PC7. provide information to the customer about the warranty and problem in detail along with the precautions to be taken in order to avoid recurrence of problem	6	5	-	1
<i>Suggest possible solutions</i>	8	9	-	2
PC8. suggest possible solutions with the time required, costs involved and methodology for servicing	4	5	-	1
PC9. seek customer's approval on further action	4	4	-	1
NOS Total	40	50	-	10
ELE/N3102: Install and repair dysfunctional TVs				
<i>Remove packaging and check accessories</i>	7	4	-	1
PC1. remove the packaging of the appliance delivered at the customer location	2	1	-	-
PC2. verify that the product matches the customer's order with all supporting accessories	2	1	-	1
PC3. check the availability of all tools and fitments for the installation	2	1	-	-
PC4. clear up the packaging material waste and dispose as per company's norms	1	1	-	-
<i>Install the TV and check functionality</i>	12	10	-	1
PC5. seek customer's input of placement of TV	2	1	-	1
PC6. measure length from the floor and the sides of the wall for drilling holes (if applicable)	2	1	-	-
PC7. attach mounting brackets at the back side of the TV in case of wall mounting	1	2	-	-

PC8. insert anchors into drilled holes, concealing necessary wires and connect from the nearest power supply	2	2	-	-
PC9. install the TV unit on appropriate stand/platform/wall mount while maintaining appropriate distance from the floor and walls as per instruction manual	2	1	-	-
PC10. plug in the power supply and demonstrate the features, utility of the TV set/remote control	2	1	-	-
PC11. educate customer on proper operation, precautions and maintenance procedures to be taken	1	2	-	-
<i>Repair dysfunctional TV</i>	19	28	-	4
PC12. diagnose the fault in the unit as per customer interaction and initial inspection like power supply module etc.	1	2	-	-
PC13. ensure that the fault is internal before disassembling the unit	1	3	-	1
PC14. unplug the power supply and any other equipment, if connected	2	1	-	1
PC15. remove the TV from the wall	2	1	-	-
PC16. remove the screws attached to the mounts and separate the rear cover from the system	1	3	-	-
PC17. examine various modules to locate exact fault	2	3	-	-
PC18. discharge any large capacitor and the charge stored in the cathode ray tube before diagnosis	1	3	-	-
PC19. check the fuse to ensure that the capacitor has not blown off and follow the current path to identify the fault	2	2	-	1
PC20. interpret instructions manual accurately to correlate the symptoms indicated with exact problem	1	2	-	-
PC21. send to factory for in depth diagnosis, if problem cannot be identified at site	2	2	-	-
PC22. repair/replace component at location, if the fault identified is due to damage of parts like fuse, PCBs etc.	1	2	-	-

PC23. schedule next appointment if the parts like picture tube can't be replaced on site	1	1	-	-
PC24. make necessary arrangements if the TV is required to be transported to service centre	1	1	-	1
PC25. reassemble the unit to check that all the modules of the unit are working as per specifications	1	2	-	-
<i>Confirm functionality of the repaired unit</i>	2	8	-	4
PC26. demonstrate functionality of the unit to the customer	1	2	-	1
PC27. provide information to the customer about cleaning procedures and precautions to be taken in order to avoid recurrence of problem	-	2	-	1
PC28. complete all documentation procedures for complaint closure	1	2	-	1
PC29. collect necessary payments from the customer	-	2	-	1
NOS Total	40	50	-	10
ELE/N9972: Communicate and coordinate effectively with others				
<i>Communicate effectively with supervisor and colleagues</i>	27	51	-	-
PC1. communicate potential hazards of a particular location	4	7	-	-
PC2. comply with organisation's policies and procedures for working with colleagues	4	7	-	-
PC3. maintain personal hygiene and professional appearance	4	7	-	-
PC4. seek clarification on the information provided by supervisor, if needed	4	8	-	-
PC5. respect the personal and professional space of colleagues and superiors	3	8	-	-
PC6. report work completed as per the schedule to superior and inform of any deviations or anomalies	4	7	-	-
PC7. analyse and act on feedback received from supervisor	4	7	-	-
<i>Respect gender and ability differences</i>	8	14	-	-
PC8. work depicting proper behaviour towards all genders and people with disability	4	7	-	-

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PC9. identify acts of discrimination and sexual harassment and report to concerned authorities	4	7	-	-
NOS Total	35	65	-	-
ELE/N1003: Work effectively, sustainably and safely				
<i>Achieve optimum productivity and quality</i>	12	18	-	-
PC1. keep immediate work area clean and tidy	2	4	-	-
PC2. work effectively to meet daily target	2	4	-	-
PC3. deliver work of expected quality despite constraints	2	3	-	-
PC4. ensure timely completion of tasks	3	4	-	-
PC5. comply with organization's policies and procedures	3	3	-	-
<i>Implement health and safety procedures</i>	9	14	-	-
PC6. take ESD precautions while doing work	2	4	-	-
PC7. avoid any damage in components due to negligence in ESD procedures	2	3	-	-
PC8. participate in fire drills or any other safety workshops organised by the organisation	2	3	-	-
PC9. use appropriate Personal Protective Equipment (PPE) as advised by the organisation	3	4	-	-
<i>Organise waste management and recycling</i>	8	12	-	-
PC10. identify and segregate recyclable/nonrecyclable and hazardous wastes	3	4	-	-
PC11. dispose waste as per the suggested procedures by the organization	2	4	-	-
PC12. participate in waste management and waste disposal workshops organised at workplace	3	4	-	-
<i>Conserve resources</i>	11	16	-	-
PC13. use all resources judiciously	2	4	-	-
PC14. perform routine cleaning of tools, machines and equipment	3	4	-	-

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PC15. report malfunctioning of machines and equipment	3	4	-	-
PC16. connect electrical equipment and appliances properly when in use and turn off when not in use	3	4	-	-
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 SelfAwareness, 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	-	-	-	-
<i>Diversity & Inclusion</i>	1	1	-	-
PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-

PC8. report any issues related to sexual harassment	-	-	-	-
<i>Financial & Legal Literacy</i>	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	-	-	-	-
<i>Essential Digital Skills</i>	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	-	-	-	-
<i>Entrepreneurship</i>	3	5	-	-
PC14. identify and assess opportunities for potential business	-	-	-	-
PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
<i>Customer Service</i>	2	2	-	-
PC16. identify different types of customers	-	-	-	-
PC17. identify customer needs and address them appropriately	-	-	-	-
PC18. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & jobs</i>	1	3	-	-
PC19. create a basic biodata	-	-	-	-
PC20. search for suitable jobs and apply	-	-	-	-

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PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
NOS Total	20	30	-	-

Outcomes to be assessed/NOSs to be assessed	Assessment criteria for the outcome
Provided in the above section	
Means of assessment 1 1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC. 2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC. 3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below.) 4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on these criteria.	
Means of assessment 2 Add boxes as required.	
Pass/Fail 1. To pass the Qualification Pack, every trainee should score a minimum of 50% in every NOS. 2. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.	

SECTION 2**25. EVIDENCE OF LEVEL****OPTION A**

Title/Name of qualification/component: TV Repair Technician			Level: 3
NSQF Domain	Outcomes of the Qualification/Component	How the outcomes relates to the NSQF level descriptors	NSQF Level
Process	Interact with customer effectively to install TV sets at premises and provide after sales repair services	Theoretical & Practical skill required for assisting in installing/repairing/servicing televisions or performing the task individually. Since the individual is required to take instructions from supervisors, hence this is level 3.	3
Professional knowledge	Knowledge related to television installation, diagnosing faults, assessing possible causes and repairing them in a scheduled manner	Factual and theoretical knowledge in the field of installing /repairing/servicing of television. No deeper knowledge or skills are required for this individual; hence this is level 3.	3
Professional skill	Punctuality, amenable behaviour, patience, trustworthiness, integrity and critical thinking	Range of cognitive and practical skill required for the installing /repairing/servicing of televisions. Hence this is level 3.	3
Core skill	Effective skill in writing, reading and oral communication (listening and speaking skills) with required clarity	Skill to communicate written or oral with required clarity, but not to manage/supervise others. Hence this is level 3.	3

Title/Name of qualification/component: TV Repair Technician			Level: 3
NSQF Domain	Outcomes of the Qualification/Component	How the outcomes relates to the NSQF level descriptors	NSQF Level
Responsibility	Responsible for completing the assigned task, effective team working, safety of self and in workplace	Accountable for own work and learning in the domain of installing /repairing/servicing of television and hence this is level 3.	3

SECTION 3**EVIDENCE OF NEED**

26	What evidence is there that the qualification is needed? What is the estimated uptake of this qualification and what is the basis of this estimate?		
	Basis	In case of SSC	In case of other Awarding Bodies (Institutes under Central Ministries and states departments)
	Need of the qualification The Indian electronics industry is one of the largest and fastest-growing industries in the world. This sector comprises majorly consumer electronic products manufacturing and servicing. Indian electronic market is expected to reach a turnover of US\$ 400 billion in 2022, up from US\$ 69.6 billion in 2012. According to an Indian Brand Equity Foundation (IBEF) report, the market is	The SSC would undertake market study and would enclosed demand forecast for the proposed job role both on short-term and long-term basis to substantiate the requirement of the Qualification proposed. The SSC can produce the data from primary or authorized secondary sources as well.	The Submitting Body would produce any reputable and reliable research reports, such as labour market information reports; occupational mapping or similar research carried out by Ministry/State/Any other authentic source forecasting the demand for the proposed qualification

	projected to grow at a compound annual growth rate (CAGR) of 29.4 per cent during the period 2015-2020		
	Industry Relevance We are in the process of taking industry validation.	The SSC would undertake validation of the job roles with actual end-user industry where such employment are going to be generated and absorbed instead of generic validation of industry. The SSC would submit the endorsements from users/intended users of the qualification clearly supporting or otherwise the need for trained people against specific job role. <i>(The industry validation format to be used)</i>	The Submitting Body would submit the list of industry participation while preparation of the curriculum/ course content of the qualifications. These could include minutes of the meeting/ reports of these consultations
	Usage of the qualification: This Qualification Pack will be used across PDA device servicing industry which is organised	The SSC would submit details of the employment generated (wherever applicable) and realised by virtue of training in the Qualifications of the sector earlier submitted for NSQF alignment. In case of unorganized sector, case studies or evidences may be given	The submitting body would submit the details of trained and placed data in the proposed qualification (if an existing qualification is being proposed for NSQF alignment) Information about the success of the qualification should be given (e.g. uptake figures, examples of

			use in recruitment and placement rates (if known) should be given. However, many of the bodies that do not have placement tracking mechanism established in place would provide necessary endorsements by the state/ ministry stating that a tracking mechanism would be institutionalized and placement records shall be provided annually or later, depending on length of qualification.
	Estimated uptake The electronics products segment contributed 82% to the overall market in 2015, while the rest comprised electronic components. The Electronic Products industry in India was valued at \$ 61.8 bn in 2015. One of the largest electronics markets in the world anticipated reaching \$ 400 bn by 2025	The SSC would submit the estimated uptake of the qualification and What steps were carried out to test the likely uptake of the qualification? The basis of this estimate should include data about the number of jobs or places in courses of learning which will be available to people who are awarded the qualification.	The Submitting Body should submit the estimated uptake by reflecting the number of the takers for this qualification for at least two years from submission of the qualification

	The Consumer Electronics and Appliances Industry in India is expected to become the fifth largest in the world by 2025. The electronics market is projected to grow at a CAGR of 17% during 2014-2020.		
27	Recommendation from the concerned Line Ministry of the Government/Regulatory Body. To be supported by documentary evidences N/A		
28	What steps were taken to ensure that the qualification(s) does (do) not duplicate already existing or planned qualifications in the NSQF? Give justification for presenting a duplicate qualification This is the first time that this Qualification is being made. The national qualification register as well as the Qualification Packs with NSDC have been checked		
29	What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated? Specify the review process here • Agencies have been appointed by the SSC to interact with training providers to gather feedback in implementation. • Monitoring of results of assessments • Employer feedback will be sought post-placement • A formal review is scheduled in a year		

SECTION 4**EVIDENCE OF PROGRESSION****30**

What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?

Show the career map here to reflect the clear progression

1. Discussing the growth trajectory within each occupation after studying organisational charts of various industry players across small, medium and large scale organizations.
2. Exploring various lateral career opportunities for the discussed qualification
3. Ensuring that there is a clear role up in terms of performance criteria qualification experience and skill requirement from lower NSQF Level to higher levels in the hierarchy.

