

Model Curriculum

1. Field Technician: Other Home Appliances

SECTOR: Electronics and IT Hardware
SUB-SECTOR: Consumer Electronics
OCCUPATION: After sales service
REF ID: ELE/Q3104
NSQF LEVEL: 4



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

ELECTRONICS SECTOR SKILLS COUNCIL OF INDIA

for the

MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/Qualification Pack: **'Field Technician: Other Home Appliances'**
QP No. **'ELE/Q3104 NSQF Level 4'**

Date of Issuance: **December, 2015**

Valid up to: **March, 2016**

* Valid up to the next review date of the Qualification Pack


Authorised Signatory
(Electronics Sector Skills Council of India)

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Field Technician – Other Home Appliances

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “**Field Technician – Other Home Appliances**”, in the “**Electronics and IT Hardware**” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Field Technician – Other Home Appliances		
Qualification Pack Name & Reference ID. ID	ELE/Q3104 version 1.0		
Version No.	1.0	Version Update Date	
Pre-requisites to Training	8 th Standard passed ITI/Diploma (Electrical/Electronics)		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Gain familiarity with the small appliances products: Knowledge about Appliances Industry. • Product Knowledge: Knowledge about various products in Small Appliances. • Identify and use tools, equipment & materials: Proper use of tools keeping safety in mind. 		

This course encompasses 6 out of 6 National Occupational Standards (NOS) of “**Field Technician – Other Home Appliances**” Qualification Pack issued by “**Electronics Skill Council of India**”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Engage with customer for Service</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 10:00</p> <p>Corresponding NOS Code ELE/N3101</p>	<ul style="list-style-type: none"> • Interact with the customer prior to visit • Interact with customer at their premises • Suggest possible solutions to customer • Achieve productivity and quality as per company’s norms 	
2	<p>Install the water purifier</p>	<ul style="list-style-type: none"> • Interact with the customer prior to visit 	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 20:00</p> <p>Corresponding NOS Code ELE/N3118</p>	<ul style="list-style-type: none"> Interact with customer at their premises Suggest possible solutions to customer Achieve productivity and quality as per company's norms 	
3	<p>Repair dysfunctional water purifier</p> <p>Theory Duration (hh:mm) 35:00</p> <p>Practical Duration (hh:mm) 35:00</p> <p>Corresponding NOS Code ELE/N3119</p>	<ul style="list-style-type: none"> Understand the symptoms in the water purifier and identify the fault Replace dysfunctional part in the water purifier unit Confirm functionality of the repaired unit Achieve productivity and quality as per company's norms 	<ul style="list-style-type: none"> Usage of Multimeter (Analog) Usage of Multimeter (Digital) Water Pressure Gauge TDS Meter Hand Tools Maintenance Tools
4	<p>Repair dysfunctional mixer/juicer/grinder</p> <p>Theory Duration (hh:mm) 35:00</p> <p>Practical Duration (hh:mm) 35:00</p> <p>Corresponding NOS Code ELE/N3120</p>	<ul style="list-style-type: none"> Understand the symptoms in the appliance and identify the fault Replace dysfunctional part of the small appliance Confirm functionality of the repaired unit Achieve productivity and quality as per company's norms 	<ul style="list-style-type: none"> Usage of Multimeter (Analog) Usage of Multimeter (Digital) Water Pressure Gauge TDS Meter Hand Tools Maintenance Tools
5	<p>Repair dysfunctional Microwave oven</p> <p>Theory Duration (hh:mm) 35:00</p> <p>Practical Duration (hh:mm) 35:00</p> <p>Corresponding NOS Code ELE/N3121</p>	<ul style="list-style-type: none"> Understand the symptoms in the microwave and identify the fault Replace dysfunctional part in the microwave Confirm functionality of the repaired unit Achieve productivity and quality as per company's norms 	<ul style="list-style-type: none"> Usage of Multimeter (Analog) Usage of Multimeter (Digital) Water Pressure Gauge TDS Meter Hand Tools Maintenance Tools
6	<p>Interact with colleagues</p> <p>Theory Duration (hh:mm)</p>	<ul style="list-style-type: none"> Interact with supervisor or superior Coordinate with colleagues 	<ul style="list-style-type: none">

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	20:00 Practical Duration (hh:mm) 20:00 Corresponding NOS Code ELE/N9901		
	Total Duration Theory Duration 180:00 Practical Duration 180:00	Unique Equipment Required: Clamp Meter Digital Multimeter Electrical Drill Lead Solder Microwave Oven Mixer Juicer Grinder Screw Driver Set Soldering Flux Soldering Iron Spanner Set TDS Meter Water Pressure Gauge Water Purifier (RO) Water Purifier (UV) Water Purifier (UF)	

Grand Total Course Duration: **360Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by [Electronics Skill Council of India](#))

Annexure2: Trainer Prerequisites for Job role: “Field Technician: Other Home Appliances” mapped to Qualification Pack: “ELE/Q3104”version1.0

Sr . No.	Area	Details
1	Description	The individual at work installs the appliance and interacts with customers to diagnose the problem and possible causes. Once the problem and causes have been identified, the individual rectifies minor problems or replaces faulty modules for failed parts or recommends factory repairs for bigger faults.
2	Personal Attributes	The individual must be willing to work in the field and travel through the day from one customer’s premise to another. Punctuality, amenable behaviour, patience, good interpersonal relationship building, trustworthiness, integrity, and critical thinking are important attributes for this job.
3	Minimum Educational Qualifications	ITI/Diploma (Electrical/Electronics) Graduation
4a	Domain Certification	Certified for Job Role: “Field Technician: Other Home Appliances” mapped to QP: “ELE/Q3104”. Minimum accepted score = 70%
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “SSC/1402”. Minimum accepted score = 70%
5	Experience	1-2 years

Annexure: Assessment Criteria

Assessment Criteria for Helper Mason	
Job Role	Field Technician: Other Home Appliances
Qualification Pack	ELE/Q3104
Sector Skill Council	Electronics

Sr. No.	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	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 center based on this criteria
5	To pass the Qualification Pack, every trainee should score a minimum of 60% in aggregate and 40% in each NOS
6	The marks are allocated PC wise; however, every NOS will carry a weight age in the total marks allocated to the specific QP

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
1. ELE/N3101 Engage with customer for service	PC1. check customer complaint registered at customer care or installation schedule	100	3	1	2
	PC2. call customer to confirm problem and fix time for visit		3	1	2
	PC3. greet the customer and confirm the problem registered		4	2	2
	PC4. be polite and patient when interacting with customer		4	2	2
	PC5. check about warranty status of appliance and annual maintenance contract		4	2	2
	PC6. anticipate possible problems to carry tools and parts accordingly		4	2	2
	PC7. ascertain customer location in order to make the route plan for the day		3	1	2
	PC8. enquire about the symptoms and history of problems in the appliance		5	2	3
	PC9. ask about the age of appliance and status of upkeep		5	2	3
	PC10. identify the problem based on customer's information		5	2	3
	PC11. communicate the problems identified and		5	2	3

	educate on possible reasons				
	PC12. inform about costs involved		5	2	3
	PC13. discuss the problem(s) identified with customer		6	2	4
	PC14. suggest possible solutions and costs involved		6	2	4
	PC15. explain the time required and methodology for servicing necessary		6	2	4
	PC16. seek customer's approval on further action		6	2	4
	PC17. accurately assess the problem and solution(s) necessary		4	1	3
	PC18. offer most appropriate and cost-effective service as per customer's requirement		4	2	2
	PC19. communicate problem effectively in order to secure customer's confidence		4	2	2
	PC20. ensure customer satisfaction and positive feedback		4	2	2
	PC21. record minimum customer complaints post service		4	2	2
	PC22. avoid repeat problem post service		3	1	2
	PC23. prepare most optimum route plan to complete daily target visits		3	1	2
	TOTAL		100	40	60
2. ELE/N3118 Install the water purifier	PC1. visit the customer's premise before carrying out the installation	100	2	1	1
	PC2. interact with the customer to understand whether the water purifier would be placed under the sink (UTS) or on the wall		3	1	2
	PC3. check that the location meets structural requirements such as distance from power supply, vicinity to plumbing point, etc.		2	1	1
	PC4. make the customer aware of any pre installations/masonry/electrical work to be carried out and educate the customer about requirement of adequate water pressure at the inlet source		2	1	1
	PC5. make necessary markings for placement of the water purifier unit		2	1	1
	PC6. seek appointment for the next visit		2	1	1
	PC7. remove the packaging in which the purifier was shipped to customer from point of sale/ warehouse		2	1	1
	PC8. check that the product matches the customer order in terms of colour and make		2	1	1
	PC9. check that all supporting accessories purchased have are there in the pack		2	1	1
	PC10. check that tools and fitments required for the installation are available		2	1	1
	PC11. clear up the packaging material waste and dispose as per company's norms		2	1	1
	PC12. check if pre installation requirements are met		3	1	2

PC13. make measurements at the location identified and drill holes ensuring no internal wiring damage takes place	4	2	2
PC14. mount the filter and ensure that the screws are fastened securely	3	1	2
PC15. drain the inlet line before connecting it to the water purifier	3	1	2
PC16. connect the outlet pipe to the drain (if applicable)	3	1	2
PC17. connect the purifier to the nearest power supply point	3	1	2
PC18. ensure that the filter is aligned as per instructions in the installation manual	5	2	3
PC19. run the purifier and ensure there are no leaks at any point	5	2	3
PC20. demonstrate the features and utility to the customer	5	1	4
PC21. explain maintenance procedures to be followed while using the water purifier	5	2	3
PC22. fill in customer acknowledgement form	2	1	1
PC23. seek customer's signature	2	1	1
PC24. complete other documentation for recording completion of installation	3	1	2
PC25. call customer care and inform about job completed	3	1	2
PC26. understand the work requirement from superior, periodically	3	1	2
PC27. report to superior on the work completed	3	1	2
PC28. escalate the customer issues and problems that are unresolved in the field	3	1	2
PC29. document the work completed on the company ERP software for tracking and future references	3	1	2
PC30. remove packaging without damage to the water purifier unit and accessories	2	1	1
PC31. position the water filter as per requirements specified in instructions manual	2	1	1
PC32. educate customer on importance of proper placing	2	1	1
PC33. carry and use the correct tools and equipment for installation	2	1	1
PC34. operate and check that they are in a safe and stable condition	2	1	1
PC35. complete installation in time target given	2	0	2
PC36. educate customer on proper operation and maintenance procedures	2	1	1
PC37. complete daily field schedule as per instructions/format within the designated time	2	1	1
TOTAL	100	40	60

3. ELE/N3119 Repair dysfunctional Water Purifier	PC1. diagnose the fault based on customer interaction and initial inspection	4	2	2
	PC2. check if the water pressure is as specified by company standards	3	1	2
	PC3. shut off the system by turning of water supply and unplug the unit	3	1	2
	PC4. place a piece of cloth or towel under the unit in order to avoid any water spills on the floor	3	1	2
	PC5. carry out basic inspection of feed water valve, tank valve, tubing, housing etc.	3	1	2
	PC6. separate and inspect every part of the unit if the fault is not identified through basic inspection	4	2	2
	PC7. send to factory for in depth diagnosis, if problem remains un-identified at site	4	2	2
	PC8. replace component at location, if the fault identified is because of damage of components such as valves or wearing out of membrane or filter	11	4	7
	PC9. remove and replace the faulty module with a functional one, either on a second visit or as pre-identified and collected from the service centre, if the problem is at the PCB level or components that cannot be replaced at site	11	4	7
	PC9. reassemble the unit	3	1	2
	PC10. start supply of water to the unit and confirm that unit is functioning	3	1	2
	PC11. check that all the modules of the unit work as per specifications	4	2	2
	PC12. demonstrate and confirm functionality of the unit with customer	4	2	2
	PC13. educate the customer about cleaning procedures and other best practices	3	1	2
	PC14. collect necessary payments from the customer, if applicable	3	1	2
	PC15. fill in customer acknowledgement form	3	1	2
	PC16. complete other documentation procedures to record complaint closure	3	1	2
	PC17. ensure damage free handling of the unit	2	1	1
	PC18. diagnose the problem accurately and in assigned time	2	1	1
	PC19. identify the problem modules accurately such as inlet valve, auto shut off valve, saddle valve, housing, O ring, PCB	2	1	1
	PC20. fix the dysfunctional water purifier in designated time	2	1	1
	PC21. rectify completely to avoid repeat fault in the water purifier	2	1	1
PC22. record minimum customer complaints post service	2	1	1	

100

	PC23. meet daily target on attending to number of complaints		2	1	1
	PC24. select the right spares according to recorded complaints at the customer care		2	1	1
	PC25. clearly communicate type of module required to the service centre, if a faulty module is to be replaced		2	1	1
	PC26. secure repairs completion receipt from customer		2	1	1
	PC27. educate customer on water purifier maintenance and correct practices to follow in order to avoid further problems		2	0	2
	PC28. ensure 100% customer satisfaction		2	0	2
	PC29. recover payments as per rate sheet/ communication from customer care		2	1	1
	PC30. sell related products such as new equipment or Annual Maintenance Contracts (AMC) as per company policy		2	1	1
		TOTAL	100	40	60
4. ELE/N3120 Repair dysfunctional mixer/juicer/ grinder	PC1. understand usage pattern of the mixer/grinder from the customer	100	4	2	2
	PC2. diagnose the fault based on customer interaction and initial inspection		5	2	3
	PC3. unplug the unit , turn overload switch back to original position if the appliance turned off due to overload		4	2	2
	PC4. carry out basic tests such as power supply inspection, volt ampere test and earth test power supply		4	2	2
	PC5. separate and inspect every module of the unit if the fault is not identified through basic tests		4	2	2
	PC6. send to factory for in depth diagnosis, if problem remains un-identified at site		4	2	2
	PC7. replace component at location, if the fault identified is because of damage of components such as relay or thermostat		12	4	8
	PC8. remove and replace the faulty module with a functional one, either on a second visit or as pre-identified and collected from the service centre, if the problem is at the PCB level or components that cannot be replaced at site		12	4	8
	PC9. reassemble the unit		4	2	2
	PC10. switch on power supply and confirm that unit is functioning		3	1	2
	PC11. demonstrate and confirm functionality of the unit with customer		4	2	2
	PC12. educate the customer about cleaning procedures, using different jars for different purposes and other best practices		4	2	2

	PC13. collect necessary payments from the customer, if applicable		3	1	2
	PC14. fill in customer acknowledgement form		3	1	2
	PC15. complete other documentation procedures to record complaint closure		3	1	2
	PC16. ensure damage free handling of the unit		2	1	1
	PC17. diagnose the problem accurately and in assigned time		2	1	1
	PC18. identify the problem modules accurately such as the power supply, overload circuit breaker, motors, PCB		2	1	1
	PC19. fix the dysfunctional appliance in designated time		2	1	1
	PC20. rectify completely to avoid repeat fault in the appliance		2	1	1
	PC21. record minimum customer complaints post service		2	1	1
	PC22. meet daily target on attending to number of complaints		1	0	1
	PC23. select the right spares according to recorded complaints at the customer care		2	1	1
	PC24. clearly communicate type of module required to the service centre, if a faulty module is to be replaced		2	0	2
	PC25. secure repairs completion receipt from customer		2	1	1
	PC26. educate customer on maintenance and correct practices to follow in order to avoid further problems		2	1	1
	PC27. ensure 100% customer satisfaction		2	0	2
	PC28. recover payments as per rate sheet/ communication from customer care		2	0	2
	PC29. sell related products such as new equipment or Annual Maintenance Contracts (AMC) as per company policy		2	1	1
	TOTAL		100	40	60
5. ELE/N3121 Repair dysfunctional Microwave oven	PC1. understand usage pattern of the microwave from the customer	100	5	2	3
	PC2. diagnose the fault based on customer interaction and initial inspection		5	2	3
	PC3. unplug the unit , carry out basic tests such as power supply inspection, volt ampere test and earth test power supply		5	2	3
	PC4. separate and inspect every module of the unit if the fault is not identified through basic tests		5	2	3
	PC5. send to factory for in depth diagnosis, if problem remains un-identified at site		5	2	3
	PC6. replace component at location, if the fault identified is because of damage of components such as relay or thermostat		12	4	8

	PC7. remove and replace the faulty module with a functional one, either on a second visit or as pre-identified and collected from the service centre, if the problem is at the PCB level or components that cannot be replaced at site		12	4	8
	PC8. reassemble the unit		4	2	2
	PC9. switch on power supply and confirm that unit is functioning		4	2	2
	PC10. demonstrate and confirm functionality of the unit with customer		4	2	2
	PC11. educate the customer about cleaning and maintenance procedures		4	2	2
	PC12. collect necessary payments from the customer, if applicable		4	1	3
	PC13. fill in customer acknowledgement form		3	1	2
	PC14. complete other documentation procedures to record complaint closure		3	1	2
	PC15. ensure damage free handling of the unit		2	1	1
	PC16. diagnose the problem accurately and in assigned time		1	0	1
	PC17. identify the problem modules accurately such as the power supply, timer/control panel, magnetron, motor etc.		2	1	1
	PC18. fix the dysfunctional appliance in designated time		2	1	1
	PC19. rectify completely to avoid repeat fault in the appliance		2	1	1
	PC20. record minimum customer complaints post service		2	1	1
	PC21. meet daily target on attending to number of complaints		1	0	1
	PC22. select the right spares according to recorded complaints at the customer care		2	1	1
	PC23. clearly communicate type of module required to the service centre, if a faulty module is to be replaced		2	1	1
	PC24. secure repairs completion receipt from customer		2	1	1
	PC25. educate customer on maintenance and correct practices to follow in order to avoid further problems		2	1	1
	PC26. ensure 100% customer satisfaction		2	1	1
	PC27. recover payments as per rate sheet/ communication from customer care		1	0	1
	PC28. sell related products such as new equipment or Annual Maintenance Contracts (AMC) as per company policy		2	1	1
		TOTAL	100	40	60
6. ELE/N9901 Interact with colleagues	PC1. understand work requirements, targets and incentives	100	5	2	3
	PC2. learn about new product models, their features		5	2	3

and functions			
PC3. report problems identified in the field	5	2	3
PC4. escalate customer concerns that cannot be handled on field	5	2	3
PC5. resolve personnel issues	5	2	3
PC6. receive feedback on work standards and customer satisfaction	5	2	3
PC7. communicate any potential hazards at a particular location	5	2	3
PC8. meet given targets	5	2	3
PC9. deliver work of expected quality despite constraints	5	2	3
PC10. have a happy and satisfied customer	5	2	3
PC11. resolve inter-personnel conflicts and achieve smooth workflow	8	3	5
PC12. receive spares from tool room or stores	8	3	5
PC13. deposit faulty modules and tools to stores	8	3	5
PC14. pass on customer complaints to colleagues in a respective geographical area	9	4	5
PC15. assist colleagues with resolving field problems	9	4	5
PC16. clearly demarcate roles of each team member	8	3	5
TOTAL	100	40	60