



Name of Sector	Sub- Sector	Qualification Pack (Course Name)	Link	Scheme	DURATION
Electronics	CONSUMER ELECTRONICS	ELE/Q3101 Job Role TV Repair Technician	http://www.nsdindia.org/telecom	Pradhan Mantri Kaushal Vikas Yojna (PMKVY)	360 HOURS [6-Months] (7-HOURS / 2-DAYS/ PER WEEK) START DATE : 01/12/2017 END DATE : 08/06/2018 EXAM DATE : 16/06/2018
Applicable National Occupational Standards (NOS)	1. ELE/N3101 Engage with customer for service 2. ELE/N3102 Install the television set 3. ELE/N3103 Repair dysfunctional CRT TV set 4. ELE/N3104 Repair dysfunctional Flat Panel Display (FPD) TV set 5. ELE/N9901 Interact with colleagues				
Name of Trainer Faculty	1.Prof.P.H.Chandankhede 2.Prof.V.R.Vidhale 2.Prof. M.M.Ingle 3. Prof. S. Nimkar 4.Prof.S.S.Singh 5. Prof. Mukesh Nagwanshi (External)				

TEACHING PLAN

Topic Nos.	Syllabus Contents	Resources Person	Date	Time	Hours
Unit No-1 (ELE/N3101 Engage with customer for service)					
1	PC1. check customer complaint registered at customer care or installation schedule	BRV	01/12/17	9.30-10.30	01
2	PC2. call customer to confirm problem and fix time for visit	PHC		10.30-11.30	01
3	PC2. call customer to confirm problem and fix time for visit	MMI		11.30-12.30	01
3	PC3. greet the customer and confirm the problem registered	MMI		1.30-2.30	01
5	PC3. greet the customer and confirm the problem registered	PHC		2.30-3.30	01
6	PC3. greet the customer and confirm the problem registered	SSN		3.30-5.30	02
7	PC4. be polite and patient when interacting with customer	BRV	02/12/17	10.30-1.30	03
8	PC4. be polite and patient when interacting with customer	PHC		1.30-5.30	04
9	PC4. be polite and patient when interacting with customer	BRV	08/12/17	9.30-10.30	01
10	PC4. be polite and patient when interacting with customer	PHC		10.30-11.30	01
11	PC5. check about warranty status of appliance and annual maintenance contract	MMI		11.30-12.30	01

12	PC5. check about warranty status of appliance and annual maintenance contract	MMI		1.30-2.30	01
13	PC6. anticipate possible problems to carry tools and parts accordingly	PHC		2.30-3.30	01
14	PC7. ascertain customer location in order to make the route plan for the day	SSN		3.30-5.30	02
15	PC8. enquire about the symptoms and history of problems in the appliance	BRV	09/12/17	10.30-1.30	03
16	PC9. ask about the age of appliance and status of upkeep	PHC		1.30-5.30	04
17	PC10. identify the problem based on customer's information	BRV		9.30-10.30	01
18	PC11. communicate the problems identified and educate on possible reasons	PHC		10.30-11.30	01
19	PC11. communicate the problems identified and educate on possible reasons	MMI	15/12/17	11.30-12.30	01
20	PC11. communicate the problems identified and educate on possible reasons	MMI		1.30-2.30	01
21	PC12. inform about costs involved	PHC		2.30-3.30	01
22	PC13. discuss the problem(s) identified with customer	SSN		3.30-5.30	02
23	PC14. suggest possible solutions and costs involved	BRV		10.30-1.30	03
24	PC14. suggest possible solutions and costs involved	PHC	16/12/17	1.30-5.30	04
25	PC15. explain the time required and methodology for servicing necessary	BRV		9.30-10.30	01
26	PC15. explain the time required and methodology for servicing necessary	PHC		10.30-11.30	01
27	PC16. seek customer's approval on further action	MMI	22/12/17	11.30-12.30	01
28	PC17. accurately assess the problem and solution(s) necessary	MMI		1.30-2.30	01
29	PC18. offer most appropriate and cost-effective service as per customer's requirement	PHC		2.30-3.30	01
30	PC18. offer most appropriate and cost-effective service as per customer's requirement	SSN		3.30-5.30	02
31	PC19. communicate problem effectively in order to secure customer's confidence	BRV	23/12/17	10.30-1.30	03
32	PC20. ensure customer satisfaction and positive feedback	PHC	23/12/17	1.30-5.30	04
33	PC21. record minimum customer complaints post service	BRV		9.30-10.30	01
34	PC22. avoid repeat problem post service	PHC		10.30-11.30	01
35	PC22. avoid repeat problem post service	MMI		11.30-12.30	01
36	PC22. avoid repeat problem post service	MMI	29/12/17	1.30-2.30	01
37	PC23. prepare most optimum route plan to complete daily target visits	PHC		2.30-3.30	01
38	PC23. prepare most optimum route plan to complete daily target visits	SSN		3.30-5.30	02
Unit-II (ELE/N3102 Install the television set)					
39	PC1. remove the television set packaging in which it was shipped to customer without damage to TV set and accessories	BRV	30/12/17		03
40	PC2. check that the product matches the customer order in terms of model and make	PHC	30/12/17		04

41	PC3. check that all supporting accessories purchased are there in the pack	BRV	5/01/18	9.30-10.30	01
42	PC4. check tools and fitments required for the installation are available	PHC		10.30-11.30	01
43	PC4. check tools and fitments required for the installation are available	MMI		11.30-12.30	01
44	PC5. clear up the packaging material waste and dispose as per company's norms	MMI		1.30-2.30	01
45	PC6. seek customer's input on placement of television set	PHC		2.30-3.30	01
46	PC7. take necessary measurements from the floor and the sides of the wall for drilling holes (if applicable)	SSN		3.30-5.30	02
47	PC7. take necessary measurements from the floor and the sides of the wall for drilling holes (if applicable)	BRV	6/01/18	10.30-1.30	03
48	PC8. make necessary wire concealing installations and make connections from the nearest power supply	PHC		1.30-5.30	04
49	PC8. make necessary wire concealing installations and make connections from the nearest power supply	BRV	12/01/18	9.30-10.30	01
50	PC8. make necessary wire concealing installations and make connections from the nearest power supply	PHC		10.30-11.30	01
51	PC9. attach mounting brackets at the back side of the TV in case it is to be wall mounted	MMI		11.30-12.30	01
52	PC10. drill holes on the wall at the identified locations and insert anchors into the holes drilled	MMI		1.30-2.30	01
53	PC10. drill holes on the wall at the identified locations and insert anchors into the holes drilled	PHC		2.30-3.30	01
54	PC11. follow instructions in the installation manual to place the TV at appropriate distance from the floor and the walls	SSN		3.30-5.30	02
55	PC12. place on appropriate stand or platform as recommended by company, if applicable	BRV	13/01/18	10.30-1.30	03
56	PC13. select appropriate location for TV set as per location guidelines given in the installation manual and customer requirements	PHC		1.30-5.30	04
57	PC14. ensure that the position of the screen of the TV set is set according to the lighting in the room	BRV	19/01/18	9.30-10.30	01
58	PC14. ensure that the position of the screen of the TV set is set according to the lighting in the room	PHC		10.30-11.30	01
59	PC15. educate customer on importance of proper placing	MMI		11.30-12.30	01
60	PC15. educate customer on importance of proper placing	MMI		1.30-2.30	01
61	PC16. educate about switching off the unit during voltage fluctuations and use of voltage regulators, if necessary	PHC		2.30-3.30	01
62	PC16. educate about switching off the unit during voltage fluctuations and use of voltage regulators, if necessary	SSN		3.30-5.30	02
63	PC17. plug in the power supply wire, set top box connection, etc., if applicable	BRV	20/01/18	10.30-1.30	03
64	PC18. demonstrate the features and utility of the TV set and the remote control	PHC		1.30-5.30	04
65	PC19. explain the precautions to be taken while using the television	BRV	27/01/18	10.30-1.30	03
66	PC20. use the correct tools and equipment for installation	PHC		1.30-5.30	04

67	PC20. use the correct tools and equipment for installation	BRV	2/02/18	9.30-10.30	01
68	PC21. make mechanical support and power supply connections securely	PHC		10.30-11.30	01
69	PC22. complete installation in time target given	MMI		11.30-12.30	01
70	PC23. educate customer on proper operation and maintenance procedures	MMI		1.30-2.30	01
71	PC24. fill in customer acknowledgement form	PHC		2.30-3.30	01
72	PC24. fill in customer acknowledgement form	SSN		3.30-5.30	02
73	PC25. seek customer's signature	BRV	3/02/18	10.30-1.30	03
74	PC25. seek customer's signature	PHC		1.30-5.30	04
75	PC26. complete other documentation for recording completion of installation	BRV	9/02/18	9.30-10.30	01
76	PC27. call customer care and inform about job completion	PHC		10.30-11.30	01
77	PC28. understand the work requirement from superior, periodically	MMI		11.30-12.30	01
78	PC28. understand the work requirement from superior, periodically	MMI		1.30-2.30	01
79	PC29. report to superior on the work completed	PHC		2.30-3.30	01
80	PC29. report to superior on the work completed	SSN		3.30-5.30	02
81	PC30. escalate the customer issues and problems unresolved at field level	BRV	10/02/18	10.30-1.30	03
82	PC30. escalate the customer issues and problems unresolved at field level	PHC		1.30-5.30	04
83	PC31. carry out daily field schedule as per instructions	BRV	16/02/18	9.30-10.30	01
84	PC32. refer unrelated customer queries	PHC		10.30-11.30	01
85	PC33. report work status and prepare required documentation as per company standards	MMI		11.30-12.30	01
86	PC34. document the work completed on the company ERP software for tracking and future references	MMI		1.30-2.30	01
87	PC34. document the work completed on the company ERP software for tracking and future references	PHC		2.30-3.30	01
88	PC34. document the work completed on the company ERP software for tracking and future references	SSN		3.30-5.30	01
89	PC34. document the work completed on the company ERP software for tracking and future references	BRV	17/02/18	10.30-1.30	03
90	PC34. document the work completed on the company ERP software for tracking and future references	PHC		1.30-5.30	04
Unit-III (ELE/N3103 Repair dysfunctional CRT TV set)					
90	PC1. diagnose the fault in the unit as per customer interaction and initial inspection	MN	23/02/18	9.30-10.30	01
91	PC1. diagnose the fault in the unit as per customer interaction and initial inspection	MN		10.30-11.30	01
92	PC1. diagnose the fault in the unit as per customer interaction and initial inspection	MMI		11.30-12.30	01
93	PC1. diagnose the fault in the unit as per customer interaction and initial inspection	MMI		1.30-2.30	02
94	PC2. check the plug point to which the TV set is connected and ensure that the power supply module in the TV set is receiving power	PHC		2.30-3.30	01

95	PC2. check the plug point to which the TV set is connected and ensure that the power supply module in the TV set is receiving power	SSN		3.30-5.30	02
96	PC3. carry out basic earthing test and volt ampere test and ensure that the fault is internal before disassembling the unit	MN	24/02/18	10.30-1.30	03
97	PC3. carry out basic earthing test and volt ampere test and ensure that the fault is internal before disassembling the unit	PHC		1.30-5.30	04
98	PC4. discharge any large capacitor and the charge stored in the cathode ray tube before diagnosis	MN	3/03/18	10.30-1.30	03
99	PC4. discharge any large capacitor and the charge stored in the cathode ray tube before diagnosis	PHC		1.30-5.30	04
100	PC4. discharge any large capacitor and the charge stored in the cathode ray tube before diagnosis	MN	9/03/18	9.30-10.30	01
101	PC5. use the voltmeter to check the fuse ensure that the capacitor has not blown off	MN		10.30-11.30	01
102	PC5. use the voltmeter to check the fuse ensure that the capacitor has not blown off	MMI		11.30-12.30	01
103	PC6. follow the path of current to identify in which section the defect has occurred before troubleshooting a circuit	MMI		1.30-2.30	01
104	PC6. follow the path of current to identify in which section the defect has occurred before troubleshooting a circuit	PHC		2.30-3.30	01
105	PC7. send to factory for in depth diagnosis, if problem cannot be identified at site	SSN		3.30-5.30	02
106	PC7. send to factory for in depth diagnosis, if problem cannot be identified at site	MN		10/03/18	10.30-1.30
107	PC7. send to factory for in depth diagnosis, if problem cannot be identified at site	PHC	1.30-5.30		04
108	PC8. interpret instructions manual accurately to correlate the symptoms indicated with exact problem	MN	16/03/18	9.30-10.30	01
108	PC8. interpret instructions manual accurately to correlate the symptoms indicated with exact problem	MN		10.30-11.30	01
109	PC8. interpret instructions manual accurately to correlate the symptoms indicated with exact problem	MMI		11.30-12.30	01
110	PC9. if the fault identified is due to a problem in an immediately replaceable part such as fuse, replace at the customer's premise	MMI		1.30-2.30	01
111	PC9. if the fault identified is due to a problem in an immediately replaceable part such as fuse, replace at the customer's premise	PHC		2.30-3.30	01
112	PC9. if the fault identified is due to a problem in an immediately replaceable part such as fuse, replace at the customer's premise	SSN		3.30-5.30	02
113	PC10. if the dysfunctional module/part is specialised such as problem with the picture tube and cannot be replaced immediately, remove and replace during	MN	17/03/18	10.30-12.30	02
114	PC10. if the dysfunctional module/part is specialised such as problem with the picture tube and cannot be replaced immediately, remove and replace during	BRV		12.30-1.30	01
115	PC10. if the dysfunctional module/part is specialised such as problem with the picture tube and cannot be replaced immediately, remove and replace during	PHC		1.30-5.30	04
116	PC11. if the fault identified requires the TV set to be transported to the service centre, make necessary arrangements for them after	MN		9.30-10.30	01

	taking customer's approval				
117	PC11. if the fault identified requires the TV set to be transported to the service centre, make necessary arrangements for them after taking customer's approval	MN	23/03/18	10.30-11.30	01
118	PC12. optimise the time taken to fix the dysfunctional television set	MMI		11.30-12.30	01
119	PC12. optimise the time taken to fix the dysfunctional television set	MMI		1.30-2.30	01
120	PC13. select the right spares as per recorded complaints at Customer Care	PHC		2.30-3.30	01
121	PC14. reassemble the unit	SSN		3.30-5.30	02
122	PC14. reassemble the unit	MN	24/03/18	10.30-1.30	03
123	PC14. reassemble the unit	PHC		1.30-5.30	04
124	PC15. switch on power supply and confirm that the unit is functioning as per specifications	MN	30/03/18	9.30-10.30	01
125	PC15. switch on power supply and confirm that the unit is functioning as per specifications	MN		10.30-11.30	01
126	PC15. switch on power supply and confirm that the unit is functioning as per specifications	MMI		11.30-12.30	01
127	PC16. demonstrate and confirm functionality of the unit with the customer	MMI		1.30-2.30	01
128	PC16. demonstrate and confirm functionality of the unit with the customer	PHC		2.30-3.30	01
129	PC17. collect necessary payments from the customer	SSN		3.30-5.30	02
130	PC17. collect necessary payments from the customer	MN	31/03/18	10.30-1.30	03
131	PC17. collect necessary payments from the customer	PHC		1.30-5.30	04
132	PC18. fill in customer acknowledgement form	MN	6/04/18	9.30-10.30	01
133	PC19. complete other documentation procedures to record complaint closure	MN		10.30-11.30	01
134	PC20. ensure damage free handling of the unit	MMI		11.30-12.30	01
135	PC20. ensure damage free handling of the unit	MMI		1.30-2.30	01
136	PC20. ensure damage free handling of the unit	PHC		2.30-3.30	01
137	PC21. complete the work without any hazards	SSN		3.30-5.30	02
138	PC22. diagnose the problem accurately and in short time	MN	7/04/18	10.30-1.30	03
139	PC23. identify the exact module in the TV set that is dysfunctional	PHC		1.30-5.30	04
140	PC23. identify the exact module in the TV set that is dysfunctional	MN	13/04/18	9.30-10.30	01
141	PC24. rectify 100% and avoid repeat fault in the TV set	MN		10.30-11.30	01
142	PC24. rectify 100% and avoid repeat fault in the TV set	MMI		11.30-12.30	01
143	PC25. secure repairs completion receipt from customer	MMI		1.30-2.30	01
144	PC25. secure repairs completion receipt from customer	PHC		2.30-3.30	01
145	PC26. meet daily target for attending to number of complaints	SSN		3.30-5.30	02
146	PC26. meet daily target for attending to number of complaints	MN	20/04/18	9.30-10.30	01
147	PC27. achieve 100% customer satisfaction	MN		10.30-11.30	01
148	PC27. achieve 100% customer satisfaction	MMI		11.30-12.30	01
149	PC27. achieve 100% customer satisfaction	MMI		1.30-2.30	01

150	PC28. record zero customer complaints post service	PHC	21/04/18	2.30-3.30	01
151	PC28. record zero customer complaints post service	SSN		3.30-5.30	02
152	PC28. record zero customer complaints post service	MN		10.30-1.30	03
153	PC29. recover payments as per rate sheet/ communication from customer care	PHC		1.30-5.30	04
154	PC30. sell related products such as new equipment or Annual Maintenance Contracts (AMC)	MN	27/04/18	9.30-10.30	01
155	PC30. sell related products such as new equipment or Annual Maintenance Contracts (AMC)	MN		10.30-11.30	01
156	PC30. sell related products such as new equipment or Annual Maintenance Contracts (AMC)	MMI		11.30-12.30	01
157	PC30. sell related products such as new equipment or Annual Maintenance Contracts (AMC)	MMI		1.30-2.30	01
Unit-IV (ELE/N3104 Repair dysfunctional Flat Panel Display (FPD) TV set)					
158	PC1. diagnose the fault in the unit as per customer interaction and initial inspection	PHC	27/04/18	2.30-3.30	01
159	PC2. carry out basic tests such as power supply inspection, volt ampere test and continuity test	SSN		3.30-5.30	02
160	PC3. unplug the power supply and any other equipment connected to the TV, e.g., set top box, DVD player, computer, home theatre	MN	28/04/18	10.30-1.30	03
161	PC3. unplug the power supply and any other equipment connected to the TV, e.g., set top box, DVD player, computer, home theatre	PHC		1.30-5.30	04
162	PC3. unplug the power supply and any other equipment connected to the TV, e.g., set top box, DVD player, computer, home theatre	BRV	4/05/18	9.30-10.30	01
163	PC4. remove the LED/LCD TV set from where it has been installed on the wall	PHC		10.30-11.30	01
164	PC4. remove the LED/LCD TV set from where it has been installed on the wall	MMI		11.30-12.30	01
167	PC4. remove the LED/LCD TV set from where it has been installed on the wall	MMI		1.30-2.30	01
168	PC5. remove the screws attached to the mounts on the TV and separate the mounts from the TV set	PHC		2.30-3.30	01
169	PC5. remove the screws attached to the mounts on the TV and separate the mounts from the TV set	SSN		3.30-5.30	02
170	PC5. remove the screws attached to the mounts on the TV and separate the mounts from the TV set	BRV	5/05/18	10.30-1.30	03
171	PC6. remove all the screws holding the rear cover and separate the rear cover from the rest of the system	PHC		1.30-5.30	04
172	PC7. locate the exact location of the fault by examining various modules of the TV such as the power supply board, the main board, speakers, etc.	BRV	11/05/18	9.30-10.30	01
173	PC8. send to factory for in depth diagnosis, if problem cannot be identified at site	PHC		10.30-11.30	01
174	PC9. diagnose the problem accurately and in short time	MMI		11.30-12.30	01
175	PC10. inspect all electrical and electronic parts of the unit as per instructions in the repair manual	MMI		1.30-2.30	01
176	PC11. if the fault identified is due to a problem in one of the PCBs	PHC		2.30-3.30	01

	within the TV set, remove the PCB and replace it with a functional one				
177	PC12. if the dysfunctional module/part is specialised and cannot be replaced immediately, remove and replace during second visit with a functional one as collected from the service centre	SSN		3.30-5.30	02
178	PC13. if the problem identified requires the set to be transported to the service centre, educate the customer about it and make necessary arrangements for the same	BRV	12/05/18	10.30-1.30	03
179	PC14. optimise the time taken to fix the dysfunctional television set	PHC		1.30-5.30	04
180	PC15. select the right spares as per recorded complaints at the customer care	BRV	18/05/18	9.30-10.30	01
181	PC16. re assemble and re install the unit	PHC		10.30-11.30	01
182	PC17. switch on power supply and confirm that the unit is functioning as per specifications	MMI		11.30-12.30	01
183	PC18. demonstrate and confirm functionality of the unit with the customer	MMI		1.30-2.30	01
184	PC19. collect necessary payments from the customer	PHC		2.30-3.30	01
185	PC20. fill in customer acknowledgement form	SSN		3.30-5.30	02
186	PC21. complete other documentation procedures to record complaint closure	BRV	19/05/18	10.30-1.30	03
187	PC22. rectify to avoid repeat fault in the TV	PHC		1.30-5.30	04
188	PC23. meet daily target for attending to number of complaints	BRV	25/05/18	9.30-10.30	01
189	PC24. achieve 100% customer satisfaction	PHC		10.30-11.30	01
190	PC25. record minimum customer complaints post service	MMI		11.30-12.30	01
191	PC26. educate customer on correct practices to follow in order to avoid further problems	MMI		1.30-2.30	01
192	PC27. ensure damage free handling of the unit	PHC		2.30-3.30	01
193	PC28. recover payments as per rate sheet/ communication from customer care	SSN		3.30-5.30	02
194	PC29. sell related products or Annual Maintenance Contracts	BRV	26/05/18	10.30-1.30	03
Unit V (ELE/N9901 Interact with colleagues)					
195	PC1. understand work requirements, targets and incentives	PHC	26/05/18	1.30-5.30	04
196	PC2. learn about new product models, their features and functions	BRV	1/06/18	9.30-10.30	01
197	PC3. report problems identified in the field	PHC		10.30-11.30	01
198	PC4. escalate customer concerns that cannot be handled on field	MMI		11.30-12.30	01
199	PC5. resolve personnel issues	MMI		1.30-2.30	01
200	PC6. receive feedback on work standards and customer satisfaction	PHC		2.30-3.30	01
201	PC7. communicate any potential hazards at a particular location	SSN		3.30-5.30	02
202	PC8. meet given targets	BRV	2/06/18	10.30-1.30	03
203	PC9. deliver work of expected quality despite constraints	PHC		1.30-5.30	04
204	PC10. Have feedback from a happy and satisfied customer	BRV	8/06/18	9.30-10.30	01
205	PC11. resolve inter-personnel conflicts and achieve smooth workflow	PHC		10.30-11.30	01
206	PC12. receive spares from tool room or stores	MMI		11.30-12.30	01
207	PC13. deposit faulty modules and tools to stores	MMI		1.30-2.30	01

208	PC14. pass on customer complaints to colleagues in a respective geographical area	PHC		2.30-3.30	01
209	PC15. assist colleagues with resolving field problems	SSN	8/06/18	3.30-5.30	02

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