Model Curriculum

CCTV Installation Technician

**SECTOR: ELECTRONICS
SUB-SECTOR: IT HARDWARE
OCCUPATION: AFTER SALES SERVICE
REF ID: ELE/Q4605 VERSION 1.0
NSQF LEVEL: 4**

Certificate

COMPLIANCE TO

QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARD

Is hereby issued by the

Electronics Sector Skills Council of India

for

Skilling Content : CCTV Installation Technician

Complying to National Occupational Standards of

Job Role/QP : **CCTV Installation Technician**, QP No : **ELE/Q4605 Level 4**

Date of Issuance : 12th May 2017
Valid up to* : 11th May 2018
*Valid upto the next QP Review Date or the date
mentioned above (whichever is earlier)

Authorized Signatory
Electronics Sector Skills Council of India

TABLE OF CONTENTS

CCTV INSTALLATION TECHNICIAN

CURRICULUM / SYLLABUS

This course encompasses 4 out of 4 National Occupational Standards (NOS) of "CCTV INSTALLATION Technician" Qualification Pack issued by "Electronic Sector Skill Council".

Program Name	CCTV INSTALLATION Technician		
Qualification Pack Name & Reference ID.	ELE/Q4605 VERSION 1.0		
Version No.	1.0	Version Update Date	12-May-2017
Pre-requisites to Training	10th Standard Pass		
Training Outcomes	**After completing this programme, participants will be able to:** • Interact with the customer in order to identify and understand their requirements. • Ensure customer satisfaction • Install and Repair dysfunctional system. • Identify dysfunctional components through visual inspection and by use of multimeter • To understand CCTV camera installation requirement in terms of equipment, system, tools, applications appropriate for a particular site. • Select Suitable cameras & DVR to provide the better solution to the customers. • Read and Comprehend signs, labels and warning • Communicate effectively • Follow behaviour etiquettes while interacting with others • Establishing good working relationships with colleagues within and outside the department by coordinating		

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	**Basics ofSecurity Surveillance** **Theory Duration** (hh:mm) 16 :00 **Practical Duration** (hh:mm) 16 :00 **Corresponding NOS Code** ELE/N4611	Understand the surveillance system. • Knowledge of pro's & con's of surveillance. • Explain the facts of video surveillance • Explain and construct various nodes of CCTV surveillance system	•
2	**Functions of Video Surveillance** **Theory Duration** (hh:mm) 16 :00 **Practical Duration** (hh:mm) 16 :00 **Corresponding NOS Code** ELE/N4611	• Constructing of a video surveillance system. • Explain function of blocks and equipment required to implement a video surveillance system. • Understanding the facts about CCTV and its interfacing devices	• Camera. • DVR. • Cables • Adapter • Display device.

3	**Types of Cameras and their functions**
	
	Theory Duration (hh:mm)
	16 :00
	Practical Duration (hh:mm)
	16 :00
	
	Corresponding NOS Code
	ELE/N4611
		• Understanding the various types of camera and their functionality.
		• Reassembling the camera & exam the parts of camera to understand their mechanism.
		• Selecting suitable camera after understanding
			• Camera(diff. types).
			  i. *CCTV cameras
			  ii. Analog Camera
			  iii. HD Camera
			  iv. IP Cameras
			  v. Dome
			  vi. bullet
			  vii. IR
			  viii. IR array
			  ix. Vandal Proof
			  x. Vari-focal
			  xi. Box camera
			  xii. Wifi camera
			  xiii. PTZ
			• DVR.
			• Cable
			• Screw driver set
			• Display.

4	**Sensors, Light,** **Lens(and selection) and About Zoom** **Theory Duration** (hh:mm)	• Different types of lens and their utility. • Differentiate & select the best camera from the same group depending on the image quality being measured by TVL chart.	• Lenses(diff. types). • Screw driver set • Camera • DVR

	16 :00 **Practical Duration** (hh:mm) 16 :00 **Corresponding NOS Code** ELE/N4610	• Selecting a camera for higher security application. • About Illumination & it's functionality • Different types of zoom technologies & their utility to get a better output in surveillance. • Angle of view settings • Selecting the proper lenses will give you a quality output.	
5	**DVR and Switcher** **Theory Duration** (hh:mm) 17:00 **Practical Duration** (hh:mm) 17 :00 **Corresponding NOS Code** ELE/N4611	• DVR as interface to view and record the image transmitted by a camera. • Explain the function of various blocks of DVR. • Understand the recording format of a DVR. • Enabling and disabling the features of a DVR depending on the level of surveillance and customer requirement. • Sequential switcher Matrix switcher • Automatic Sequential Switcher switches the images at specified intervals.	• Customer Application Form • Feedback Form • Packages Form • Props depending on Activity • Videos • Powerpoint • Laptop • Projector • Projector Screen • White Board • Marker

6	**Principles of Network Remote Accessing**
	
	Theory Duration
	(hh:mm)
	17 :00
	Practical Duration
	(hh:mm)
	17 :00
	
	Corresponding NOS Code
	ELE/N4611
	ELE/N4610
	ELE/N4609
		• Explain the nodes for remote access of a CCTV camera / DVR
		• Configuring the DVR with Different type of router configuration
		    ○ Connection setup
		    ○ Confirming the Connection.
		    ○ Connecting DVR to the router
		    ○ Port Forwarding guide by router
		    ○ Eg. D-Link, Net gear , Linksys
		• DVR DDNS Configuration
			• DVR.
			• Camera
			• Cable
			• LAN connection/Modem.
			• Laptop
			• Display

7	**Install the CCTV Camera**
	
	Theory Duration
	(hh:mm)
	17 :00
	Practical Duration
	(hh:mm)
	17 :00
	
	Corresponding NOS Code
	ELE/N4610
		• To understand the warranty associated with the hardware product
		• To know related documents for the hardware equipments
		• To know company's policy on product's warranty and other terms and conditions
		• To know company's customer support and service policy
		• To know camera specifications such as focus, lens type, zoom
		• To check the hardware equipments before taking to the installation site
		• To replace the hardware if there is any issue or malfunction is found while testing
			• Practical Lab
			  a. Computer
			  b. LCD display
			  c. White board
			  d. Marker
			  e. Tool Kit for installing camera
			  f. Installation manual
			  g. Safety precaution manual
			  h. Hardware equipment
			• Cables
			  a. co-axial(3+1 cable)
			  b. twisted pair (CAT 6)
			  c. Routers
			  d. Switchers
			• connectors
			  a. BNC

		• To Know different types of electronic surveillance products and functionalities • To read the standard operating procedures for different equipment • To Know elements of CCTV systems such as camera, DVR, monitor • To check for critical equipment such as camera, recorder w.r.t quality and output • To ensure all the tools, equipments, utilities are available in good to enable installing in single visit • To know specification and the procedures to be followed for setting up the system • To know functions of electrical and mechanical parts or modules • To know power requirement of different CCTV related equipment • To use BNC connectors for joining cables and crimp them • To connect all the cables from multiple cameras to the CCTV system area • To know installation procedures given in the manuals• To use power cable of specified thickness to connect CCTV system with power supply • To know basic electronics involved in the hardware • To know voltage and power requirement for different hardware devices • To know voltage requirement and other specification on CCTV hardware • To mount the CCTV camera so as to cover maximum area • To decide whether the camera requires any enclosure to protect from dust, vandalism and climatic conditions • To know camera specifications such as focus, lens type, zoom • To know controls of different options in camera such as rotation, speed of movement in pan / tilt camera • To use stable mounting structure and ensure that is not disturbed by wind or rain which would affect the video quality • To decide on the height of camera installation according to the end purpose (for example: if the visitor entering the premise is to be	b. Power pin c. RJ-45 jacks

monitored, camera should not be placed too high and their face would not be captured)

- To set up the type of camera such as pan, tilt, zoom unit as per customer requirement
- To set camera controls
- To connect the power and video output cable to the camera
- To use tools such as diagonal cutters, screwdrivers, crimp tools, knife for cabling and camera mounting
- To use recommended tools for specific equipment to avoid damage
- To know functions of electrical and mechanical parts or modules
- To know how to operate the system and other hardware
- To follow standard operating procedure of tools and equipments and avoid any hazard
- To follow the installation manual for specific hardware product
- To follow standard safety procedures while installing
- To know installation procedures given in the manuals
- To operate hardware equipment in CCTV system
- To Know safety rules, policies and procedures –To Know quality standards to be followed
- To use other specific devices for installation of camera
- To improve work processes
- To ensure that only quality hardware products are procured complying to industry and quality standards
- To ensure product installation and user manual is available which should be given to the user or customer
- To ensure that there are no cable joins, sharp bends during cabling
- To ensure weather proof (UV proof) cable are used in outdoors
- To ensure that cabling is sturdy, protected and does not disturb the ambience of building
- To ensure that cameras are protected from light while installing in outdoor
- To ensure the intended area is covered during movement in case of tilt or pan type of camera
- To assess power requirement of camera and use required power

		supply and cable • To educate customer on use of cameras for desired monitoring and warranty period and annual maintenance requirement • To ensure zero• material damage while handling the equipment during installation process • To install target number of CCTVs as per company's policy • To know company's sales and after sales support policy • To know company's policy on product's warranty and other terms and conditions • To know company's customer support and service policy • To know importance of the individual's role in the workflow • To know company's policies on: incentives, delivery standards, and personnel management • To share work load as required • To achieve the targets given on installations • To reduce repetition of errors	

8	**Setup the CCTV Surveillance system**
	
	Theory Duration (hh:mm)
	17 :00
	Practical Duration (hh:mm)
	17 :00
	
	Corresponding NOS Code
	ELE/N4611
		• To procure and place the Digital Video Recorder (DVR) in an appropriate place as per customer's requirement
		• To connect all the cameras installed to the DVR
		• To ensure that all cameras are connected to the DVR and the wiring is appropriate
		• To connect the monitor (TV / PC) with the video output connection in the DVR
		• To connect speakers, if required, for audio output to DVR
		• To connect the camera optional controls (tilt / pan / zoom) to DVR
		• To use DVR link option to connect with other DVR in the network
		• To connect the DVR to router, if required, to enable remote monitoring
		• To connect the power supply of DVR, monitor, speakers to set up the system
		• To install the appropriate software for IP network or remote monitoring
		• To enter the appropriate IP address to receive the video signals through IP network / internet
		• To connect all equipments and switch on to start the video capture
			• Practical Lab
			  a. Computer
			  b. LCD display
			  c. White board
			  d. Marker
			  e. Tool Kit for installing camera
			  f. Installation manual
			  g. Safety precaution manual
			  h. Hardware equipment
			• Cables
			  a. co-axial(3+1 cable)
			  b. twisted pair (CAT 6)
			  c. Routers
			  d. Switchers
			• Connectors
			  a. BNC
			  b. Power pin
			  c. RJ-45 jacks
			• CCTV cameras
			  a. Analog Camera
			  b. HD Camera
			  c. IP Cameras
			  d. Dome
			  e. Bullet
			  f. IR
			  g. IR array
			  h. Vandal Proof
			  i. Vari-focal
			  j. Box camera
			  k. Wifi camera

			l. PTZ
			• DVR and NVR
			   a. 4 channel
			   b. 8 channel
			   c. 16 channel
			• DVR cards.

9	**Cables**
	
	Theory Duration
	(hh:mm)
	16 :00
	Practical Duration
	(hh:mm)
	16 :00
	
	Corresponding NOS Code
	ELE/N4610
	ELE/N9909
		• Interfacing the camera with the DVR with suitable medium depending on the wishing network / system if any.
		• Explain and collecting tools required to set up a surveillance system.
		• Discuss with the other team members and about the required specification of a system.
		• Help the team member as a good support worker to create and surveillance system and remain quite and patience at the time of installation / fault finding.
			• Cables
			   a. Coaxial
			   b. Fiber Optic
			   c. Cat 5
			   d. Crimper
			   e. Connectors
			   f. Cutters
			• Cables
			   a. co-axial(3+1 cable)
			   b. twisted pair (CAT 6)
			   c. Routers
			   d. Switchers
			• Connectors
			   a. BNC
			   b. Power pin
			   c. RJ-45 jacks
			• CCTV cameras
			   a. Analog Camera
			   b. HD Camera
			   c. IP Cameras
			   d. Dome
			   e. Bullet
			   f. IR
			   g. IR array
			   h. Vandal Proof
			   i. Vari-focal
			   j. Box camera
			   k. Wifi camera
			   l. PTZ
			• DVR and NVR
			   a. 4 channel
			   b. 8 channel
			   c. 16 channel
			   DVR cards.

10	**Survey, planning and maintenance**
	
	Theory Duration
	(hh:mm)
	16 :00
	Practical Duration
	(hh:mm)
	16 :00
	
	Corresponding NOS Code
	ELE/N4609
	ELE/N4610
		• Making a good site survey and identifying the location of the camera to be fixed.
		• Selecting the suitable camera depending on the coverage area required by the customer.
		• Help & co-operate with the team members while taking measurement of the site.
		• Interfacing & connecting the camera and synchronizing it with control room.
		• To make understand the recording & retrieving process of previously recorded footage to the controller of
			• Connectors
			   a. BNC
			   b. Power pin
			   c. RJ-45 jacks
			• CCTV cameras
			   a. Analog Camera
			   b. HD Camera
			   c. IP Cameras
			   d. Dome
			   e. Bullet
			   f. IR
			   g. IR array
			   h. Vandal Proof
			   i. Vari-focal
			   j. Box camera

	ELE/N9909	the system. • Convince the customer about the best available camera for better surveillance.	k. Wifi camera l. PTZ • DVR and NVR a. 4 channel b. 8 channel c. 16 channel • DVR cards • DVR(Diff. Types) • Camera(Diff. Types). • Adapter • Cable(Diff. Types). • Screw driver • Display
11	**Interaction with customers and colleagues, concept of team work** **Theory Duration** (hh:mm) 16 :00 **Practical Duration** (hh:mm) 16:00 **Corresponding NOS Code** ELE/N4609 ELE/N9909	• Understand the basic requirements of the customer. • Help them to choose the best solution. • Continuous interaction with the customer for any installation or post installation maintenance	• Projector • Laptop
	Total Duration **Theory Duration 180:00** **Practical Duration 180:00**	**Unique Equipment Required:** • Allen Key Set • Cable (RJ-6 video cable) • Cable (2 core power cable) • Cable (CAT-5) • CCTV Camera IR Dome (Analog) • CCTV Camera IR Bullet with IP66 • CCTV Camera Box Camera with Outside housing • CCTV Camera IP Camera - Dome • CCTV Camera vandal proof camera • Crimping Tool • Wire Cutter • Digital Multimeter • Digital Video Recorder 4 Channel and 8 channel • hard disk purple color - video surveillance hard disk • Nose Pliers • Hammer • Paper cutter/knife • Insulation Tape • Electrical Drill • Drill bit Set • Electrician Plier • ESD Gloves	

		- LCD Monitor (minimum 15 inch required) - Line Tester - Screw Driver Set - Wire Stripper - Safety Shoes - Safety Gloves - Safety Helmet - Cable cat-5 - Connectors (vga connectors) - DC Connector (for power cables) - LAN Tester (for crimping of RJ 45 connectors1) 8-port switch - PC (for the configuration of DVR)

Grand Total Course Duration: **360 Hours 00 Minutes**

*(This syllabus/ curriculum has been approved **Electronics Sector Skills Council of India***

Annexure A: TRAINER Pre-Requisites

Trainer Prerequisites for Job role: "CCTV INSTALLATION Technician" mapped to Qualification Pack: "ELE/ Q 4605 Version1.0"

Sr. No.	Area	Details
1	Job Description	The individual at work is responsible for installing the CCTV system in the customer premises. The individual understand the customer and site requirement, installs the camera and integrates the hardware for effective CCTV surveillance system functioning.
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	Diploma in Electronics with at least 1• 2 years of experience in installation and troubleshooting of Set Top Box and Direct to Home (DTH) systems. Should have excellent communication skills
4a	Domain Certification	Certified for Job Role: "CCTV Installation Technician" mapped to QP: "ELE/Q4605". 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".
5	Experience	1- 2 years of experience in installation and troubleshooting of CCTV

Annexure B: ASSESSMENT Criteria

Assessment Criteria for CCTV INSTALLATION Technician	
Job Role	CCTV INSTALLATION Technician
Qualification Pack	ELE/ Q4605 version1.0
Sector Skill Council	Electronic

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 canter based on this criteria
5	To pass the Qualification Pack, every trainee should score a minimum of 70% in each NOS
6	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.

Element	Performance Criteria	Total Marks (400)	Out Of	Marks Allocation	
				Theory	Skills Practical
1. ELE/N4609 Visit site and understand customer requirement	PC1. greet the customer and listen to their requirements	100	3	1	2
	PC2. understand the basic requirement of the customer		3	1	2
	PC3. understand the basic layout of site where the CCTV system to be installed from the customer		3	1	2
	PC4. check with customer about time for visit, field work and confirm location		3	1	2
	PC5. follow etiquette when interacting with customers as per company policy		3	1	2
	PC6. interact with the customers to understand the purpose of CCTV installation		5	2	3
	PC7. understand the system monitoring requirement including combination of viewing, recording and replay		5	2	3

PC8. understand the type of camera preferred by customer such as fixed camera, pan/tilt, zoom options, day/night camera	5	2	3
PC9. visit the site and understand the layout	3	1	2
PC10. seek customer's approval for visiting the rooms in the premises	3	1	2
PC11. understand the area and other measurement specifications	3	1	2
PC12. identify the locations where the CCTV camera to be installed which could capture maximum area in the video coverage	4	2	2
PC13. decide if any mounting structure or pole is required for camera installing	4	2	2
PC14. understand the building structure for cabling purpose	3	1	2
PC15. interact with customer to inform the observation made from surveillance aspect after the site check	4	2	2
PC16. suggest the CCTV systems that could fulfil customer's and site requirement	3	1	2
PC17. suggest the type of camera and recording system to be installed	3	1	2
PC18. suggest the hardware / software requirements if it has to be connected with IP network or for remote monitoring	4	2	2
PC19. suggest the hardware system that suit the customer budget and meet the functional requirement	3	1	2
PC20. assess any hesitation from customer on selection of system and provide an alternative solution	3	1	2
PC21. confirm the number and type of camera to be installed as per the site requirement	2	1	1
PC22. take confirmation on mounting points of camera in the site	2	1	1
PC23. confirm the location of system placement (recorder and monitoring)	2	1	1
PC24. confirm the monitor or hardware requirement (TV / PC) and whether it is available	2	1	1
PC25. confirm the type of transmission to output device: IP network or Digital Video Recorder (DVR) or remote and confirm hardware requirements	3	1	2
PC26. estimate the time for installation process and inform the customer	2	1	1
PC27. inform the customer about hardware details including cost and take their sign off	2	1	1
PC28. ask open and close-ended questions to understand the customer requirement and expectation about the CCTV system	4	2	2

	PC29. educate about different systems and equipments available to meet customer requirements		4	2	2
	PC30. achieve customer satisfaction on engagement behaviour such as listening to complaints or appropriate dressing		4	1	3
	PC31. educate customers about the different type of CCTV systems available in the market and suggest an ideal system for the site		3	1	2
		TOTAL	**100**	**40**	**60**
2. ELE/N4610 Install the CCTV camera hardware	PC1. procure the hardware required for CCTV system installation	**100**	4	2	2
	PC2. ensure that all the hardware matches the customer requirement, agreed features and specifications		4	2	2
	PC3. understand the warranty associated with the hardware product		3	1	2
	PC4. and related documents for the hardware equipments		4	2	2
	PC5. check the hardware equipments before taking to the installation site		4	2	2
	PC6. replace the hardware if there is any issue or malfunction is found while testing		4	2	2
	PC7. check for critical equipment such as camera, recorder w.r.t quality and output		3	1	2
	PC8. ensure all the tools, equipments, utilities are available in good to enable installing in single visit		4	2	2
	PC9. lay the cables in the building or site to connect the camera and system		2	1	1
	PC10. ensure adequate length of co-axial and other cables are available for installation		2	1	1
	PC11. use BNC connectors for joining cables and crimp them		2	1	1
	PC12. use power cable of specified thickness to connect CCTV system with power supply		2	1	1
	PC13. connect all the cables from multiple cameras to the CCTV system area		2	1	1
	PC14. mount the CCTV camera so as to cover maximum area		3	1	2
	PC15. decide whether the camera requires any enclosure to protect from dust, vandalism and climatic conditions		3	1	2
	PC16. use stable mounting structure and ensure that is not disturbed by wind or rain which would affect the video quality		3	1	2

	PC17. decide on the height of camera installation according to the end purpose (for example: if the visitor entering the premise is to be monitored, camera should not be placed too high and their face would not be captured)		3	1	2
	PC18. set up the type of camera such as pan, tilt, zoom unit as per customer requirement		3	1	2
	PC19. set camera controls		3	1	2
	PC20. connect the power and video output cable to the camera		3	1	2
	PC21. use tools such as diagonal cutters, screwdrivers, crimp tools, knife for cabling and camera mounting		4	2	2
	PC22. follow standard operating procedure of tools and equipments and avoid any hazard		4	2	2
	PC23. follow the installation manual for specific hardware product		4	2	2
	PC24. use recommended tools for specific equipment to avoid damage		4	2	2
	PC25. follow standard safety procedures while installing		4	2	2
	PC26. ensure that only quality hardware products are procured complying to industry and quality standards		2	1	1
	PC27. ensure product installation and user manual is available which should be given to the user or customer		2	1	1
	PC28. ensure that there are no cable joins, sharp bends during cabling		2	1	1
	PC29. ensure weather proof (UV proof) cable are used in outdoors		2	1	1
	PC30. ensure that cabling is sturdy, protected and does not disturb the ambience of building		2	0	2
	PC31. ensure that cameras are protected from light while installing in outdoor		2	0	2
	PC32. ensure the intended area is covered during movement in case of tilt or pan type of camera		2	0	2
	PC33. assess power requirement of camera and use required power supply and cable		2	0	2
	PC34. educate customer on use of cameras for desired monitoring and warranty period and annual maintenance requirement		1	0	1
	PC35. ensure zero-material damage while handling the equipment during installation process		1	0	1
	PC36. install target number of CCTVs as per company's policy		1	0	1
			100	40	60
3. ELE/N4611	PC1. procure and place the Digital Video Recorder (DVR) in an appropriate place as per customer's requirement	100	2	1	1

Setup the CCTV surveillance system camera and DVR with the system	PC2. connect all the cameras installed to the DVR		3	1	2
	PC3. ensure that all cameras are connected to the DVR and the wiring is appropriate		3	1	2
	PC4. connect the monitor (TV / PC) with the video output connection in the DVR		3	1	2
	PC5. connect speakers, if required, for audio output to DVR		2	1	1
	PC6. connect the camera optional controls (tilt / pan / zoom) to DVR		2	1	1
	PC7. use DVR link option to connect with other DVR in the network		2	1	1
	PC8. connect the DVR to router, if required, to enable remote monitoring		2	1	1
	PC9. connect the power supply of DVR, monitor, speakers to set up the system		5	2	3
	PC10. install the appropriate software for IP network or remote monitoring		5	2	3
	PC11. enter the appropriate IP address to receive the video signals through IP network / internet		5	2	3
	PC12. connect all equipments and switch on to start the video capture		5	2	3
	PC13. perform a demo of CCTV system operation with the customer		3	1	2
	PC14. ensure that all the controls in the system are properly working		2	1	1
	PC15. ensure that pan, tilt, zoom options of the camera are working		3	1	2
	PC16. monitor and switch to multiple camera installed and connected in the system		3	1	2
	PC17. perform viewing, recording and replaying the video captured in the system as per customer requirement		3	1	2
	PC18. take corrective action and fix the issues such as no video, lack of clarity in the system when found		3	1	2
	PC19. perform remote monitoring and controls associated if it is opted by customer		3	1	2
	PC20. inform customer on adequate information about hardware device or software		7	3	4
	PC21. instruct customer on use of and procedures to be followed for operating the system or hardware		7	3	4
	PC22. receive the work order from the superior		3	1	2
	PC23. report on the work load and completion status		3	1	2
	PC24. escalate the problems that cannot be resolved at field level with reason		3	1	2
	PC25. submit the feedback form on customer satisfaction level with respect to the installation		3	1	2
	PC26. accurately report work status through proper documentation as per company's standards		3	1	2

	PC27. ensure that there is no problem after installing the CCTV system and the output video is per customer's expectation		2	1	1
	PC28. confirm acceptance on installing any hardware or software in the system		2	1	1
	PC29. inform customer about warranty and other terms and conditions on the hardware equipment		2	1	1
	PC30. provide relevant documents to customers on completion of installation		2	1	1
	PC31. achieve 100% satisfaction with customer on installation service		2	1	1
	PC32. achieve 100% on time completion of field installation with reference to agreed target and time or reasons for not meeting target		2	1	1
		TOTAL	**100**	**40**	**60**
4. **ELE/N0009** **Coordinate with colleagues**	PC1. understand and assess work requirements	**100**	5	2	3
	PC2. understand the targets and incentives		5	2	3
	PC3. understand new operating procedures and constraints		5	2	3
	PC4. report problems in the 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. receive positive feedback on behaviour and attitude shown during interaction		5	2	3
	PC11. interact with colleagues from different functions and understand the nature of their work		10	4	6
	PC12. receive spares from tool room or stores; deposit faulty modules and tools to stores		10	4	6
	PC13. pass on customer complaints to colleagues in a respective geographical area		10	4	6
	PC14. assist colleagues with resolving field problems resolve conflicts and achieve smooth workflow		10	4	6
	PC15. follow the company policy during cross functional interaction		10	4	6
		TOTAL	**100**	**40**	**60**