

CRITERIA FOR ASSESSMENT OF TRAINEES



Job Role	CCTV installation technician
QP #	ELE/Q4607
Sector Skill Council	Electronics Sector Skills Council of India

Guidelines for Assessment:

- 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.
- The assessment for the theory part will be based on knowledge bank of questions created by the SSC.

Element	Performance Criteria	Total Marks (400)	Out Of	Marks Allocation	
				Theory	Skills Practical
ELE/N4609 Visit site and understand customer requirement					
Interacting with customer	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
Understanding customer's requirements	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
Understanding the site condition	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
Suggesting solutions	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	
Deciding the CCTV system to be installed	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	
Achieving productivity and quality standards	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
ELE/N4610 Install the CCTV camera					
Procuring CCTV hardware	PC1. procure the hardware required for CCTV system installation		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

Testing hardware before installation	PC6. replace the hardware if there is any issue or malfunction is found while testing	100	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	
Connecting cables	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	
Setting up the camera	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	
Using tools and equipments	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	
Achieve productivity and quality standards	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	
ELE/N4611 Setup the CCTV surveillance system						
Connecting CCTV camera and DVR with the system	PC1. procure and place the Digital Video Recorder (DVR) in an appropriate place as per customer's		100	2	1	1
	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	
Setting up CCTV system	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	
Checking functioning of CCTV system	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	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	
Interacting with customer	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	
Reporting to superior	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
Achieving productivity and quality standards	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
ELE/N0009 Coordinate with colleagues					
Interacting with supervisor	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
Coordinating with colleagues	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	