

Assessment Criteria for Assistant Electrician

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role Assistant Electrician

Qualification Pack CON/Q0602

Sector Skill Council Construction

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 knowledge part will be based on knowledge bank of questions created by Assessment Bodies subject to approval by SSC
3. Individual assessment agencies will create unique question papers for knowledge/theory part for assessment of candidates as per assessment criteria given below
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on assessment criteria.
5. The passing percentage for each QP will be 50%. To pass the Qualification Pack, every trainee should score a minimum of 50% individually in each NOS.
6. The Assessor shall check the final outcome of the practices while evaluating the steps performed to achieve the final outcome.
7. The trainee shall be provided with a chance to repeat the test to correct his procedures in case of improper performance, with a deduction of marks for each iteration.
8. After the certain number of iteration as decided by SSC the trainee is marked as fail, scoring zero marks for the procedure for the practical activity.
9. 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 within the specified timeframe set by SSC.
10. Minimum duration of Assessment of each QP shall be of 4hrs/trainee.

		Marks Allocation			
		Total Mark	Out Of	Theory	Skills Practical
CON/N0602: Select and use hand, power tools and electrical devices relevant to construction electrical works	PC1. select and handle appropriate hand and power tools for establishing/ terminating electrical connections as per requirement	100	7	2	5
	PC2. select appropriate electrical measuring devices to examine electrical units for power interruptions/ continuity		3	1	2
	PC3. select appropriate tools and measuring devices to trace out short circuits/ faults and leakages in electrical wiring		10	3	7

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	PC4. select electrical devices such as starters, circuit breakers, relays as per equipment/ wiring installation rating, current rating		3	1	2
	PC5. follow operating procedure and standards set by manufacturer while handling and using power tools and measuring devices		7	2	5
	PC6. perform basic checks on power tools prior to use		10	3	7
	PC7. use measuring instruments to measure size and dimension of wires, conduits as per electrical installation or maintenance work requirement		13	4	9
	PC8. use hand and power tools to cut, and bend wire and conduit as per electrical installation or maintenance work requirement		10	3	7
	PC9. use right tools to splice wires by stripping insulation from terminal leads and twisting wires together		7	2	5
	PC10. use appropriate hand and power tools to thread conduit ends, connect couplings, and fabricate and secure conduit support brackets		7	2	5
	PC11. use appropriate hand, power tools and diagnostic devices like digital ammeter, multimeter, tong tester, earth tester or similar devices to install, repair power connections		10	3	7
	PC12. maintain and upkeep of relevant tools and devices after use		7	2	5
	PC13. work safely as per standard practices, manufacturer's specifications and guidelines, electrical / organization safety norms while carrying out any electrical work		7	2	5
		Total	100	30	70
CON/N0603: Install temporary lighting arrangement at construction sites	PC1. check and select cable, conduits , lights, sockets, temporary power distribution panels at power source and other required fixtures and accessories as per manufacturer's guidelines and specification	100	7	2	5
	PC2. assist in /carry out laying of cables through ducts or conduits, underground or through poles (overhead) as per plans and instructions		7	2	5
	PC3. select the type and wattage of lights considering illumination requirement at worksite and install them at secured positions		7	2	5

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	PC4. fix lights and its accessories, brackets, bulkheads with screws and bolts or by other standard means, pull wires through conduit leading to connection boxes, temporary panels/ distribution boards or other temporary electrical terminals		7	2	5
	PC5. extend/ join LV electrical cable using straight through joints, splicing them together and secure joints by applying PVC insulation tapes, caps or by other safe method as and when necessary		7	2	5
	PC6. carry out termination of LV cables selecting the right method as per standard practice		7	2	5
	PC7. work safely as per electrical safety guidelines provided by manufacturer, standard safety practice or organizational safety norms while establishing or disconnecting live electrical connections		3	1	2
	PC8. upkeep of all relevant key electrical tools and fixtures		3	1	2
	PC9. tag embedded, exposed electrical lines and other key equipment appropriately		3	1	2
	PC10. repair and replace light arrangements as per instruction or requirement		7	2	5
	PC11. replace burned out bulbs, light units and ballast in light fixtures as needed		7	2	5
	PC12. carry out relevant tests to trace out power interruptions/ continuity at lighting arrangements		10	3	7
	PC13. replace damaged cable, other relevant parts as and when necessary		7	2	5
	PC14. shift light at various locations during construction activity as per requirement		7	2	5
	PC15. replace faulty circuit breakers, fuses, switches, electrical and electronic components and wire as per requirement		10	3	7
	PC16. perform preventive maintenance on diesel generators at site provided for temporary lighting (if any) at scheduled intervals as per direction of concerned authority		3	1	2
		Total	100	30	70
CON/N0604: Install LV electrical wiring at permanent structures	PC1. identify and select house wiring components (such as wires, flexible and rigid conduits, PVC raceways, wooden battens, clamps etc.) according to their specification / size	100	7	2	5
	PC2. read and interpret single phase LV wiring diagram		10	3	7

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	PC3. carry out necessary linear measurement to cut, bend, join conduits and cables and use them as per requirement or instruction		7	2	5
	PC4. lay conduit through RCC structures (slabs, beams, walls) or through chased wall (brick wall) surface as per instruction		7	2	5
	PC5. lock conduit pipe in its location by means of clamp or other standard means as per instruction		7	2	5
	PC6. pull, push wires through conduits in order to expose them at desired locations as per requirement		7	2	5
	PC7. perform drilling, cutting work as and when necessary using appropriate hand and power tools		10	3	7
	PC8. handle and shift electrical fixtures, fittings as per instructions within workplace		7	2	5
	PC9. assist in fixing of electrical fixtures and fittings as per instruction		7	2	5
	PC10. carry out termination of cables safely as per instruction		7	2	5
	PC11. carry out necessary tests to electrical circuit during and post wiring activity using appropriate tools as per direction of electrician		10	3	7
	PC12. assist in carrying out electrical earthing work by installing earthing components as per instruction		10	3	7
	PC13. work safely according to manufacturer guidelines, specification, standard electrical safety practices or organizational safety and as per direction of superior authority		7	2	5
		Total	100	30	70
CON/N0605: Assemble, install and maintain temporary LV electrical panels (distribution boards) at construction site	PC1. read relevant SLDs, instructions, safety guidelines, manufacturer's specifications prior to assemble temporary panel/ distribution boards		10	3	7
	PC2. select and install required fixtures like power sockets, switches, wires, MCBs of appropriate specification as per circuit load requirement		10	3	7
	PC3. ensure tightness and safe working condition of wires, fixtures prior to connect the assembly with power source	100	3	1	2
	PC4. connect DB to main power cable and undertake standard tests to ensure its safe and desired working		7	2	5
	PC5. place and secure the distribution board against water, fire and other external damaging agents		7	2	5
	PC6. carry out proper termination of cables as per standard practice while connecting to the sockets of the panel		7	2	5

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	PC7. carry out earthing of the panels as per standard procedure		10	3	7
	PC8. work safely as per manufacturer's guidelines, specifications, standard electrical practices or organizational safety norms whichever applicable		3	1	2
	PC9. check and ensure necessary tagging, barricading near to the live/ active electrical distribution boards		3	1	2
	PC10. carry out visual inspection of the live/ active board regularly to ensure safe working condition of all components		3	1	2
	PC11. ensure that the live connections get discontinued after completion of daily construction works in order to minimize energy wastage and enhance working efficiency of electrical units		3	1	2
	PC12. respond promptly on failure/ damage or malfunctioning of panel or any of its component		7	2	5
	PC13. carry out necessary tests in order to determine root cause of failure		10	3	7
	PC14. report, notify concerned authorities prior to shut down, deactivate or repair the electrical unit		3	1	2
	PC15. replace, repair faulty components as per SLD, instruction, safety guideline, manufacturer's specification		7	2	5
	PC16. carry out necessary documentation, keep records relevant to maintenance/repairing of panels as per organizational norms		3	1	2
	PC17. isolate the panel safely and shift to another location as and when necessary		3	1	2
		Total	100	30	70
CON/N8001: Work effectively in a team to deliver desired results at the workplace	PC1. pass on work related information/ requirement clearly to the team members	100	7	2	5
	PC2. inform co-workers and superiors about any kind of deviations from work		7	2	5
	PC3. address the problems effectively and report if required to immediate supervisor appropriately		10	3	7
	PC4. receive instructions clearly from superiors and respond effectively on same		7	2	5
	PC5. communicate to team members/subordinates for appropriate work technique and method		10	3	7
	PC6. seek clarification and advice as per requirement and applicability		7	2	5
	PC7. hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams		27	8	19

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	PC8. work together with co-workers in a synchronized manner		27	8	19
		Total	100	30	70
CON/N8002: Plan and organize work to meet expected outcomes	PC1. understand clearly the targets and timelines set by superiors	100	7	2	5
	PC2. plan activities as per schedule and sequence		7	2	5
	PC3. provide guidance to the subordinates to obtain desired outcome		10	3	7
	PC4. plan housekeeping activities prior to and post completion of work		7	2	5
	PC5. list and arrange required resources prior to commencement of work		10	3	7
	PC6. select and employ correct tools, tackles and equipment for completion of desired work		10	3	7
	PC7. complete the work with allocated resources		10	3	7
	PC8. engage allocated manpower in an appropriate manner		10	3	7
	PC9. use resources in an optimum manner to avoid any unnecessary wastage		10	3	7
	PC10. employ tools, tackles and equipment with care to avoid damage to the same		7	2	5
	PC11. organize work output, materials used, tools and tackles deployed,		7	2	5
	PC12. processes adopted to be in line with the specified standards and instructions		7	2	5
				Total	100
CON/N9001: Work according to personal health, safety and environment protocol at construction site	PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authorities	100	7	2	5
	PC2. follow emergency and evacuation procedures in case of accidents, fires, natural calamities		7	2	5
	PC3. follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable		10	3	7
	PC4. participate in safety awareness programs like Tool Box Talks, safety demonstrations, mock drills, conducted at site		7	2	5
	PC5. identify near miss , unsafe condition and unsafe act		7	2	5

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PC6. use appropriate Personal Protective Equipment (PPE) as per work requirements including: <ul style="list-style-type: none"> • Head Protection (Helmets) • Ear protection • Fall Protection • Foot Protection • Face and Eye Protection • Hand and Body Protection • Respiratory Protection (if required) 	10	3	7
PC7. handle all required tools, tackles , materials & equipment safely	7	2	5
PC8. follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines	7	2	5
PC9. install and apply properly all safety equipment as instructed	13	4	9
PC10. follow safety protocol and practices as laid down by site EHS department	13	4	9
PC11. collect and deposit construction waste into identified containers before disposal, separate containers that may be needed for disposal of toxic or hazardous wastes	7	2	5
PC12. apply ergonomic principles wherever required	7	2	5
Total	100	30	70