



ASSESSMENT MATERIAL

EVIDENCE GUIDE

Qualification code:

LEN0112.v1

Level: 2

Credit: 90

Version: 1

Apply Building Electrician (Assistant) skills for solar PV systems

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ASSESSMENT AND ASSESSOR DETAILS

Competent

☐

Not Yet Competent

☐

Assessment

☐

Re-Assessment

☐

Assessor Name:

Assessor Code

Assessor Signature

Date

DD	MM							YYYY	

CANDIDATE DETAILS

Candidate Name:

First Name

Last Name

Father Name

Institute Name and District

CNIC #

OR

Registration Number:

Gender

Male

☐

Female

☐

Candidate Consent

I agree to the time and date of the assessment and am aware of the requirements of the assessment. I fully understand my rights of appeal.

Candidate Signature:

ASSESSMENT RESULTS SUMMARY FORM

You can use this coversheet as an *Assessment Results Summary Form*. Simply post a photocopy of this completed coversheet to **NAVTTTC**

NAVTTTC OFFICE ONLY

1. DATE FORM RECEIVED:

DD	MM							YYYY	

2. DATE ENTERED INTO DATABASE:

DD	MM							YYYY	

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ASSESSMENT SUMMARY AND RECORD

ACTIVITY	METHOD				DESIRED OUTCOMES	RESULT	
NATURE OF ACTIVITY	WRITTEN	ORAL	PORTFOLIO	OBSERVATION	DESIRED OUTCOMES FOR SUCCESSFUL ASSESSMENT OF: APPLY BUILDING ELECTRICIAN (ASSISTANT) SKILLS ON SOLAR PV SYSTEMS	COMPETENT	NOT YET COMPETENT
Practical final project		✓		✓	Complete supplied project brief related to application of Building Electrician (Assistant) skills on solar PV systems: • Carry out corrective maintenance of off-grid solar system • Carrying out preventive maintenance of earth system in building • Perform tests and report results for electrical wiring in the building • Installed electrical cables and wiring accessories as per drawing		
Knowledge assessment	✓	✓			• Answer all questions the Assessment Panel will have following oral presentation of completed project brief		
Other requirements			✓		• All completed course assignments, projects and formative assessments including: ○ Observations ○ Demonstrations ○ Questions and recorded answers • Oral presentation of project to assessment panel • Completed learner logbooks • Completed work forms/records • Completed job cards • Evidence of participating in training programmes • Documented training outcomes such as reports and portfolio writing • Measuring instrument calibration records		

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CANDIDATE ASSESSMENT

Candidate Name..... Father Name

ALL WORK ASSESSED FOR THESE COMPETENCY STANDARDS MUST BE YOUR OWN WORK.

GUIDANCE TO CANDIDATE

To meet this standard you are required to complete the following tasks within **five hours** timeframe:

- **Carry out corrective maintenance of off-grid solar system**
- **Carrying out preventive maintenance of earth system in building**
- **Perform tests and report results for electrical wiring in the building**
- **Installed electrical cables and wiring accessories as per drawing**

ACTIVITIES	CANDIDATE RESPONSE
2. Complete project brief of applying building electrician (Assistant) skills on solar photovoltaic (PV) systems under observation by Instructor	• Carry out corrective maintenance on off-grid solar system ✓ Dismantle faulty parts or components of off-grid solar system ✓ Replace or repair faulty parts or components of off-grid solar system ✓ Perform commissioning of off-grid solar system • Carrying out preventive maintenance of earth system in the building ✓ Perform basic measurements tests for building earthing system ✓ Perform minor adjustments and calibrations of earthing system ✓ Replace worn out or damaged parts/ components of earthing system • Perform tests and report results for electrical wiring in the building ✓ Select tools and equipment for use in electrical wiring test in the building ✓ Perform basic adjustments and measurements for test equipment of building wiring ✓ Conduct electrical wiring test in the building. ✓ Prepare test results of building wiring. • Install electrical cables and wiring accessories as per Annexure-1. ✓ Select PPEs for installation of electrical wiring ✓ Perform measurements as per layout diagram of the room ✓ Fix PVC pipes as per room layout diagram ✓ Lay cables as per room layout diagram. ✓ Install other wiring accessories according to the layout diagram
3. other requirements	• Follow the occupational health and safety procedures. Note : In case of any contingencies always report to supervisor taking immediate precaution measures as per SOPs
4. Answer all questions Assessor Panel will have following project presentation	My answers to questions are correct and demonstrate my understanding of the topics and their application.

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ASSESSOR JUDGEMENT GUIDE

Candidate Name Father Name

INSTRUCTIONS FOR ASSESSMENT PANEL

THIS SECTION CONTAINS MINIMUM EVIDENCE REQUIREMENTS.

- This section contains minimum evidence requirement. Oral questioning may be used to clarify candidate understanding of the topic and its application.

ACTIVITIES	MINIMUM EVIDENCE REQUIRED	YES/NO	ASSESSOR COMMENTS ON CANDIDATE PERFORMANCE
1. Completes Practical task of all course assignments	• During a practical assessment under observation by an assessor the candidate correctly carried out the following task		
Carry out corrective maintenance of off-grid solar system	✓ Dismantled faulty parts or components of off-grid solar system ✓ Replaced or repair faulty parts or components of off-grid solar system ✓ Performed commissioning of off-grid solar system		
Carrying out preventive maintenance of earth system in the building	✓ Performed basic measurements tests for building earthing system ✓ Performed minor adjustments and calibrations of earthing system ✓ Replaced worn out or damaged parts/ components of earthing system		
Perform tests and report results for electrical wiring in the building	✓ Selected tools and equipment for use in electrical wiring test in the building ✓ Performed basic adjustments and measurements for test equipment of building wiring ✓ Conducted electrical wiring test in the building. ✓ Prepared test results of building wiring.		
Install electrical cables and wiring accessories as per Annexure-1.	✓ Selected PPEs for installation of electrical wiring ✓ Performed measurements as per layout diagram of the room ✓ Fixed PVC pipes as per room layout diagram ✓ Laid cables as per room layout diagram. ✓ Installed other wiring accessories according to the layout diagram		
2. Other requirements	Oral presentation of project brief and completed project work to Assessment Panel.		
3. Answer all questions Assessment Panel will have following project presentation	Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application. Assessment Panel to document all questions asked, if any, and the answers here. Use extra pages as required and attach here.		

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LIST OF TOOLS, EQUIPMENT, MATERIAL AND CONTEXT OF ASSESSMENT

Instructions

This section contains information regarding;

- Context of the assessment
- List of required tools and equipment

1. Context of Assessment

This task will be carried out in real time environment.

2. List of tools and equipment required

S. No	Name of Items (tools and equipment's)	Quantity
1	Safety Hamlet	5
2	Insulated Plier With Side Cutter	5
3	Insulated Long Nose Plier With Side Cutter	5
4	Insulated wire Cutter	5
5	wire stripers	5
6	insulated screw drivers	5
7	High Insulated Rubber Hand Gloves	5
8	Insulated Work Bench	5
9	Power Supply	5
10	Main Switch	5
11	Tag Off / Log Off Nos	5
12	Drawing Board	5
13	Papers for Drawing	5
14	Led Pencil	5
15	Measuring Steel Tape	5
16	Steel Rule	5
17	PVC Pipes Different Size	5
18	Insulated Plier With Side Cutter	5
19	Insulated Long Nose Plier With Side Cutter	5
20	Insulated wire Cutter	5
21	Blow Lamp	5
22	Hacksaw	5
23	Measuring Steel Tap	5
24	Steel Wire	5
25	Milled Steel Wire	5
26	Calculator	5
27	Measuring Steel Tape	5
27	Steel Rule	5
28	Drawing Board	5
29	Switch Board	5
30	Distribution Board	5
31	Steel Rule	5
32	Insulated Plier With Side Cutter	5
33	Insulated Long Nose Plier With Side Cutter	5
34	Insulated wire Cutter	5

35	Flat Screw Driver	5
36	Level tool	5
37	Hammer of 2 Kg	5
38	Tong Tester Metter	5
39	Calculator	5
40	Micrometre 0 To 1	5
41	Insulated Plier With Side Cutter	5
42	Insulated Long Nose Plier With Side Cutter	5
43	Insulated wire Cutter	5
44	Screw Driver Different Size	5
45	Micrometre 0 To 1	5
46	Calculator	5
47	Different Electrical Item	5
48	Watt meter	5
49	Micrometre/SWG Gauge	5
50	Chisel 8'	5
51	Hammer 2kg	5
52	Insulated Plier With Side Cutter	5
53	Insulated Long Nose Plier With Side Cutter	5
54	Insulated wire Cutter	5
55	Screw driver Different Size	5
56	Earth Electrode	5
57	Boring Machine	1
58	8 SWG Size Wire	5
59	Bus Bar	5
60	Screw Wrench	5
61	Spanner Set	5
62	Earth Tester Meter	5
63	Hertz Meter	5
64	Thimble Press	5
65	Charge Controller	5
66	Battery Charger	5
67	Tong Tester (Clamp-On Meter) AC/DC	5
68	Compass	5
69	Megar meter (Analogue & Digital)	2
70	PV panel 500 watts with Mount stand	5
71	Battery 100 AH	5
72	Magnetic contactor	25
73	Cam Switch (STAR-DELTA)	5
74	Overload relay	

3. List of consumable items required		
S. No	Consumable Items	Quantity
1	safety shoes	5
2	Safety Eyes Glass	5
3	safety gloves	5
4	Dungaree	5
5	Phase tester	5
6	Insulated Rubber Mat	5
7	Samad Bond	1 pack
8	Tag Off / Log Off Nos	5
9	Map OHS Precautions	1
10	Documents Related Drawing	as per requirements
11	Papers for Drawing	15
12	Led Pencil	15
13	Rubber	15
14	Permanent Marker	10
15	Tag Off / Log Off Nos	15
16	Solution Pak	1 pack
17	joints boxes	15
18	PVC Pipes Different Size	5 length
19	fan boxes	15
20	junctions boxes	15
21	Ball Point	10
22	job related documents	as per requirements
23	Papers for Drawing	15
24	Led Pencil	15
25	Rubber	15
26	switch board	15
27	Distribution Board as per Required	15
28	Drawing Map	1
29	Power Plug (Male, Female)	15
30	Plastic Board	15
31	Light Plug and Box	15
32	Main Supply Cable	2 coil
33	Phase tester	5
34	TV and Telephone Box	15
35	Paper for Documentation	15
36	Light Plug	15
37	Switch Board	15
38	TV Plug with Board	15
39	Marker	15
40	Chisel	15
41	PVC pipes	5 length
42	Switch Board with Box	15
43	PVC elbow	15
44	PVC Socket	15
45	PVC clamp	15
46	Volt Metter	15
47	Paper	15
48	Ballpoint	15
49	Cable According to Specification	different size of cables as per

		requirement
50	Cable Size Table	5
51	Insulation Tester	5
52	Distribution Board as per Required	5
53	Cable Specification Table	5
54	Nut Bolt	3 dozen different sizes
55	earth wire	as per requirements
56	Copper Bus Bar	5
57	Conduit Pipe/ PVC Pipe	5 length
58	Nut Bolt	3 dozen

Annex: 1

