071305T4ELC

ELECTRONICS TECHNOLOGY LEVEL 5

ENG/OS/ET/CR/01/5/A

Perform Electrical Installation

Nov/Dec 2024

TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION COUNCIL (TVET CDACC)

PRACTICAL ASSESSMENT CHECKLIST

OBSERVATION CHECKLIST

Candidate's Name			
Candidate's Registration Code			
Assessor's name & Registration Code			
Venue of Assessment			
Date of assessment			
Items to be evaluated: *Please award marks as appropriate. Give a brief comment on your observation.*	**Marks available**	**Marks obtained**	**Comments**
TASK 1: Install the P.V solar system and two final circuits			
1. Adhered to safety procedures i. Wore dust coat/overall *(1 or 0)* ii. Wore safety boot or closed shoes, *(1 or 0)*	 1 1		

iii. Wore gloves while working on 3-phase electricity *(1 or 0)*	1		
iv. Safe use of tools and equipment, *(1 or 0)*	1		
2. Drew the wiring diagrams for			
i. P.V Solar installation equipment	5		
ii. The Two final circuits indicating			
a. lamps controlled from one position	5		
b. socket outlets wired in ring	5		
(check for correct wiring diagrams and awards marks accordingly) Sample wiring diagrams are attached on the appendix			
3. Installation of the system			
a. Mounted electrical and electronic components			
i. P.V solar module	2		
ii. Charge controller and DC/AC inverter	2		
iii. Solar battery	2		
iv. Circuit breaker	2		
v. Junction box	2		
vi. Lamps	2		
vii. Socket outlets	2		
viii. Switch	2		
b. Used PVC mini trunking wiring system *(4 or 0)*	4		
c. Performed wiring of electrical components as per IEE regulations			
i. Correct wiring *(any 5x1)*	5		
ii. Correct jointing *(any 5x1)*	5		
iii. Terminated electrical wiring correctly *(any 5x1)*	5		
4. Performed correct configurations and tested the electrical wiring of the system			
i. Continuity test *(2 or 0)*	2		

ii. Earth Impedance test *(2 or 0)*	2		
iii. Insulation resistance test *(2 or 0)*	2		
5. Dry run the system with all parts functioning as per the system functionality			
i. Sockets outlets *(2 or 0)*	2		
ii. Bulbs working *(2 or 0)*	2		
iii. switch working *(2 or 0)*	2		
iv. solar module working *(2 or 0)*	2		
Sub-Total	**68**		
TASK 2: Mount and solder an aamplifier circuit			
6. Installation of the system			
a. Mounted electrical and electronic components			
i. Resistors: 10kΩ, 2.2kΩ, 560Ω and 3.3kΩ	2		
ii. Transistor Q (BC108)	2		
iii. Speaker	2		
iv. Power supply +Vcc (10v dc)	2		
v. Capacitors C1 and C2 each 47µF	2		
b. Performed wiring of electrical components as per IEE regulations			
i. Correct wiring *(any 3x1)*	3		
ii. Correct jointing *(any 5x1)*	5		
iii. Terminated electrical wiring correctly *(any 3x1)*	3		
7. Performed correct configurations and tested the voltages at test points			
a. TP1	3		
b. TP2	3		
c. TP3	3		

8. Dry run the system with all parts functioning as per the system functionality a. Speaker working	2		
Sub-Total	**27**		
GRAND TOTAL	**95**		

ASSESSMENT OUTCOME

The candidate was found to be:

Competent ☐ Not yet competent ☐

(Please tick as appropriate)

(The candidate is competent if the candidate obtains at least 50%)

Feedback from candidate:

Feedback to candidate:

Candidate's Signature	**Date**
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Assessor's Signature	**Date**
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Appendix:

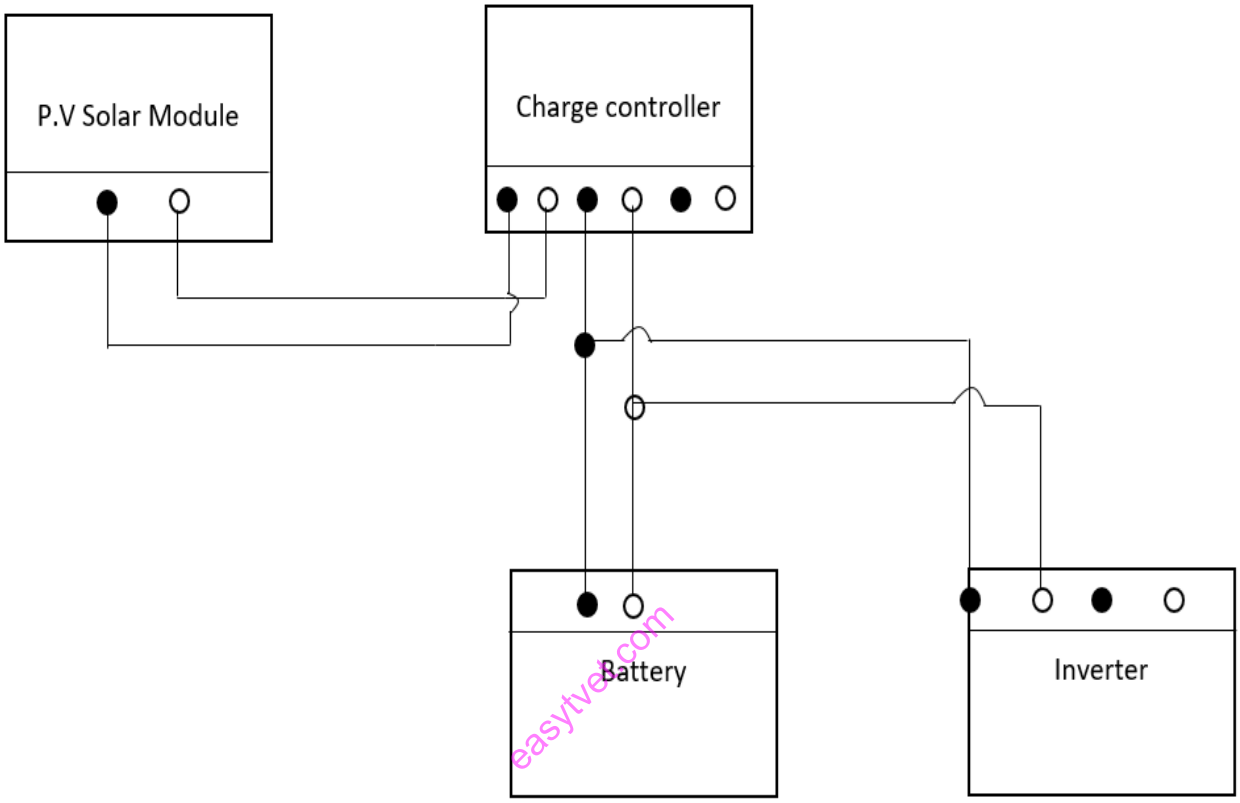

Fig 1. Wiring diagram for installation of a P.V solar equipment

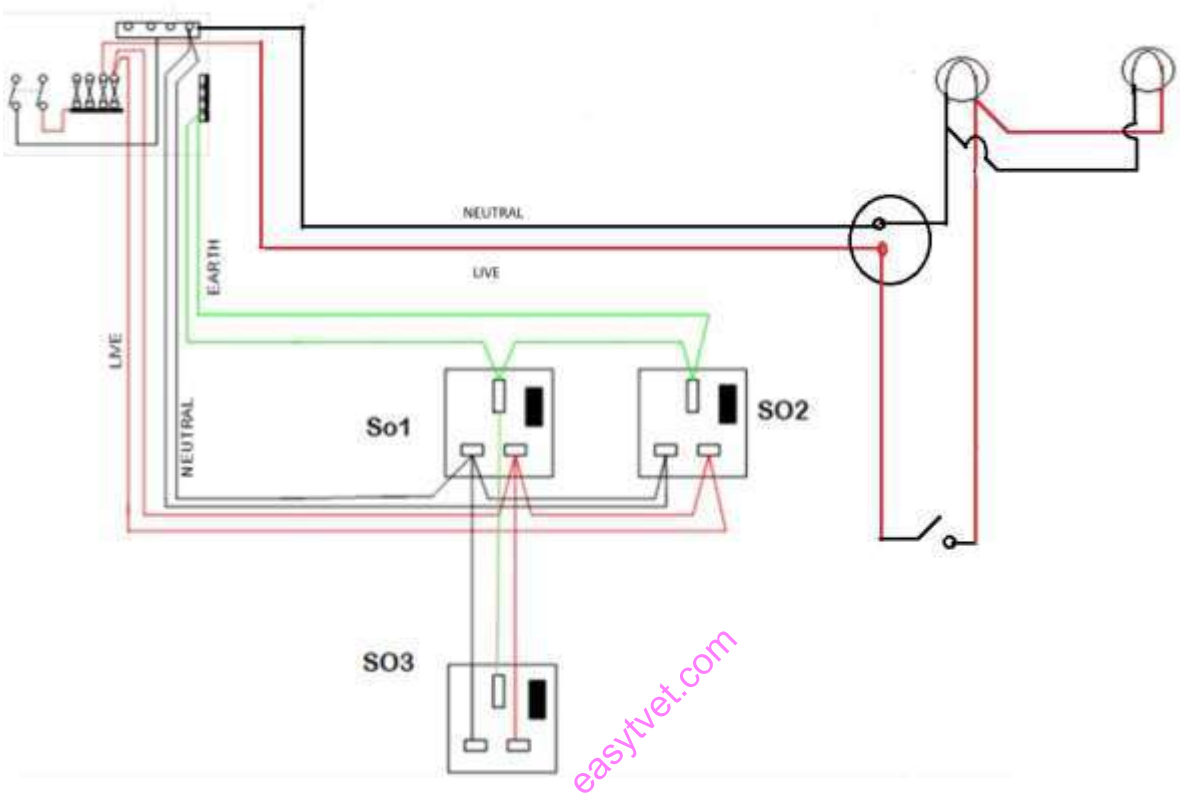

Fig 2. Wiring diagram for the two final circuits