

**072205T4SPV**

**SOLAR PV INSTALLATION ASSISTANT LEVEL 4**

**ENG/OS/PVI/CR/04/4**

**Install DC and AC Solar Photovoltaic System**

**July/August 2025**



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

**PRACTICAL ASSESSMENT**

**Time: 4 HOURS**

**INSTRUCTIONS TO CANDIDATE:**

1. Figure 1 below shows a solar PV system circuit feeding both A.C. and D.C. systems. Lamp C is a D.C lamp controlled from point S<sub>3</sub>. Lamps A and B are A.C lamps controlled from two independent positions S<sub>1</sub> and S<sub>2</sub>. The socket outlets are wired in radial.

You are required to perform the following tasks:

**TASK 1:** Draw the wiring diagram

**TASK 2:** Install and wire the circuit using PVC mini-trunking system

**TASK 3:** perform the following tests on the circuit;

- i. continuity test
- ii. polarity test
- iii. Test the circuit for proper operation.

2. You have been provided with the following resources for the practical tasks:

- i. 50 W solar module
- ii. 10 A charge controller
- iii. 300W inverter
- iv. 12V ,50Ah battery
- v. 4-way consumer control unit
- vi. 20 A circuit breaker
- vii. 6 A circuit breaker
- viii. Double pole
- ix. Junction box
- x. One gang two-way switch
- xi. One gang one way switch
- xii. Straight batten lamp holder
- xiii. Deep pattress boxes
- xiv. Shallow pattress boxes
- xv. 12 V DC bulb
- xvi. 13A socket outlets
- xvii. Mini trunking
- xviii. Wood screws
- xix. 12 mm Tower clips
- xx. 1.5 mm<sup>2</sup> single core cable (Red)
- xxi. 1.5 mm<sup>2</sup> single core cable (Black)
- xxii. 1.5 mm<sup>2</sup> single core cable (Green/yellow)
- xxiii. 2.5 mm<sup>2</sup> single core cable (Red)
- xxiv. 2.5 mm<sup>2</sup> single core cable (Black)
- xxv. 2.5 mm<sup>2</sup> single core cable (Green/yellow)
- xxvi. 6.0 mm<sup>2</sup> single core cable (Red)
- xxvii. 6.0 mm<sup>2</sup> single core cable (Black)
- xxviii. 6.0 mm<sup>2</sup> single core cable (Green/yellow)
- xxix. multimeter

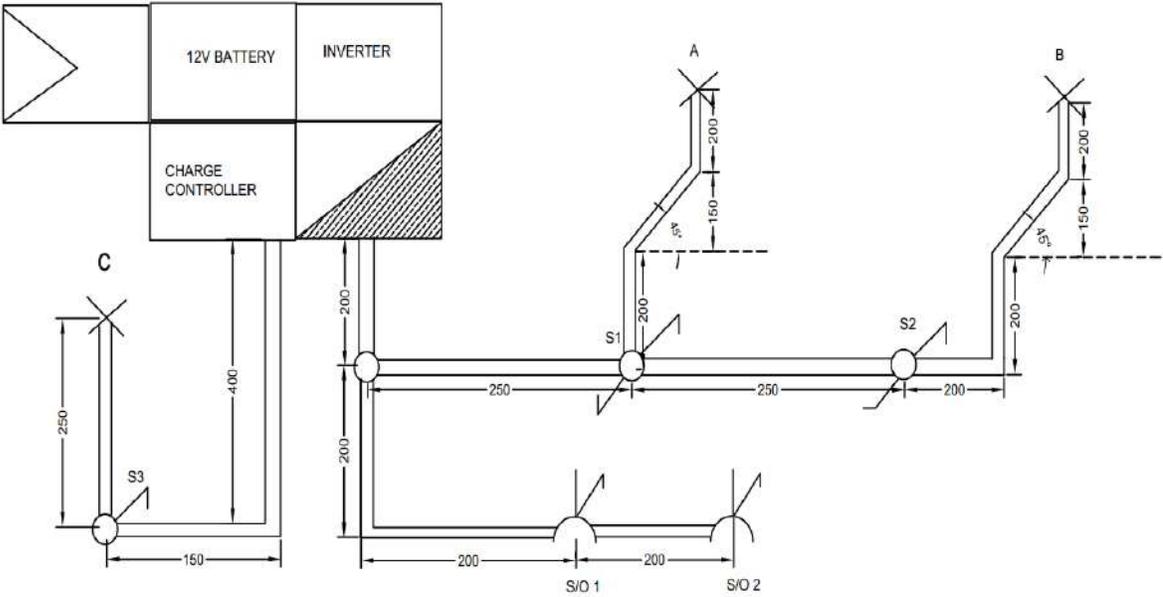


Figure 1

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