

EV Charging Equipment Installation – Sample Paper I

1) Mode 2 charging must not exceed how many amps.

- a) 13 amps
- b) 16 amps
- c) 25 amps
- d) 32 amps

2) Which one of the following would be used to test an earth electrode?

- a) Insulation resistance tester
- b) Low resistance ohm meter
- c) Earth fault loop impedance tester
- d) Multi-meter

3) Which one of the following documents is statutory?

- a) IET Code of Practice for Electric Vehicle Charging Installations
- b) IET Guidance Note 3 Inspection and Testing
- c) BS7671 Requirements for Electrical Installations
- d) Electricity Safety Quality and Continuity Regulations

4) What tests should be completed on a 100mA RCD?

- a) ½ times, 1 time, 5 times, test button
- b) 1 time, 5 times, test button
- c) ½ times, 1 time, test button
- d) ½ times, 1 time, 5 times

5) Which one of the following locations for the installation of charging equipment will need a Traffic Management Order?

- a) Domestic
- b) Commercial
- c) On Street
- d) Petrol filling station

6) Which of the following specifications applies to devices which are used as functional switches for charging equipment?

- a) It must be capable of switching the full load current.
- b) It must be capable of switching all live conductors.
- c) It must be located on the charging equipment.
- d) It must be inaccessible to the public.

7) Why is the installation of an EV charging point required to be notified to the DNO?

- a) So a central register can be compiled
- b) So overloading of substations can be mitigated
- c) So the number of electric cars can be estimated
- d) So the location of charging points can be posted on a website

8) If installing an EV point on a petrol filling station, what hazardous zone of the station are they permitted?

- a) Zone 1 (up to 0.5 m from the petrol pump outlet pump)
- b) Zone 2 (between 0.5 and 2m from the petrol outlet pump)
- c) Zone 3 (between 2m and 5.5m from the petrol outlet pump)
- d) Outside the zones

9) When testing the earth electrode resistance of a new installed electrode, what is the maximum value allowed in BS 7671

- a) 2Ω
- b) 100Ω
- c) 50Ω
- d) 200Ω

10) What mode allows a D.C. connection?

- a) Mode 1
- b) Mode 2
- c) Mode 3
- d) Mode 4

11) What mode allows connection to a standard 13-amp BS 1363 socket outlet without a controller (RCD)?

- a) Mode 1
- b) Mode 2
- c) Mode 3
- d) Mode 4

12) When should EV outlets have RCD protection?

- a) When their rated 16 amps or higher
- b) Always
- c) When the outlet is installed outside
- d) When the outlet is installed on a petrol station

13) Which one of the following is the category of charging cable permanently connected to the vehicle?

- a) Case A
- b) Case B
- c) Case C
- d) Case D

14) What is the purpose of an Initial verification?

- a) To check that the installation complies, so far as reasonably practicable, with BS7671.
- b) To provide a detailed report on the condition of the installation and check signs of deterioration.
- c) To ensure the requirement of the Electricity at Work Regulations have been met.
- d) To provide an engineering view, so far as reasonably practical, that the requirements of GN3 are met.

15) What must be done with a low resistance ohmmeter to ensure accurate test results are obtained each time it is used?

- a) Calibration
- b) Lead zeroing
- c) Battery replacement
- d) Test on a known supply

16) You have installed a 90°C thermosetting multi core armoured supplying a EVSE point. What voltage do you test the cable at for insulation resistance?

- a) 250V dc
- b) 500V dc
- c) 250V ac
- d) 1000v dc

17) Which one of the following provides pen protection?

- a) A 30mA RCD
- b) An isolating transformer
- c) An RDC-DD
- d) An SPD

18) What is the maximum ZE for an TN-C-S system?

- a) 200Ω
- b) 0.8Ω
- c) 0.35Ω
- d) 21Ω

19) What is the correction factor to apply to Max ZS to get corrected?

- a) 0.2
- b) 0.8
- c) 0.35
- d) 20

20) What is the minimum rating for EV charging equipment to be installed outside?

- a) IPX2
- b) IP44
- c) IP24
- d) IP45

21) G98 requirements for the connection of fully type tested micro generators (up to and including)

- a) 32A
- b) 16A
- c) 20A
- d) 10A

22) Which of the following is a set of standards for electricity metering data exchange?

- a) BS EN 62056
- b) BS EN 6234
- c) BS EN 6771
- d) BS EN 2323

23) How often should the client test RCD'S?

- a) 3 months
- b) 6months
- c) Yearly
- d) Never

24) What does V2G stand for?

- a) Vehicle to ground
- b) Vehicle to grid
- c) Vehicle to Gary
- d) Vehicle to garage

25) What does PEI stand for?

- a. Plumbers exemplary Institute
- b. Prosumers electrical installation
- c. Prosumers electrical interest
- d. Prosumers electrical

26) What should you do on finding a looped supply when checking a customer's property for an EV install?

- a. Inform the customer.
- b. Inform your manager.
- c. Inform DNO
- d. Tell the customer to inform DNO.

27) What document is needed for an on-street installation?

- a. Hers registration
- b. Compex
- c. TMO
- d. DNO

28) Which of the following is a protective measure against the risk of an open pen fault in the pen conductor?

- a. Changing the supplier
- b. Changing the circuit design
- c. Installing an isolating transformer
- d. Installing a dual pole isolator

29) What is the min & max heights above ground level for the main operating controls and socket outlets on EV charging equipment?

- a. 0.7 + 1.2
- b. 0.8 + 1.3
- c. 0.75 + 1.25
- d. 0.75 + 1.2

30) In the event of an open pen fault what will happen to all conductive parts connected to the main earthing terminal?

- a. Nothing
- b. They will show a minor level of voltage drop.
- c. They may become live to a dangerous voltage.
- d. They will stay at zero volts.

Sample Paper 1	Answers
1	D
2	C
3	D
4	C
5	C
6	D
7	B
8	D
9	D
10	D
11	A
12	B
13	A
14	A
15	B
16	B
17	B
18	C
19	B
20	B
21	B
22	A
23	B
24	B
25	B
26	C
27	C
28	C
29	D
30	C