

BS7671 Part 6

Questions on Inspection and testing

1. When carrying out a continuity of protective conductors test on a circuit, the test equipment must produce a test voltage of between 4 V and 24 V and a short circuit current not less than:
 - a) 0.25 mA
 - b) 0.2 A
 - c) 500 mA
 - d) 100 mA

2. For circuits having a nominal voltage above 500 V, the minimum insulation resistance is:
 - a) 5 M@
 - b) 1 M@
 - c) 0.5 M@
 - d) 0.25 M@

3. One of the purposes of an inspection prior to initial testing of an installation is to verify that the installed equipment is:
 - a) connected to the supply and energised
 - b) not visibly damaged
 - c) functioning safely when energised
 - d) exceeds the minimum insulation resistance value

5. Which of the following four tests should **NOT** be carried out with the supply on:
 - a) insulation
 - b) earth loop impedance
 - c) prospective short circuit
 - d) operation of an RCD

6. The IEE Regulations require where relevant, the first test on a completed installation to be:
 - a) insulation resistance
 - b) polarity
 - c) continuity of ring final conductors
 - d) continuity of protective conductors

7. Which of the following need **NOT** be carried out in the visual inspection of the installation?
 - a) identification of conductors
 - b) correct connection of socket outlets and lamp holders
 - c) the presence of fire barriers
 - d) the correct connection of the supply authorities fuse

8. It is a requirement of the Regulations that a Schedule of Test Results should always be attached to an Electrical Installation Certificate for:

- a) all initial verification of new circuits
- b) new installations only
- c) major alterations only
- d) modified installations only

9. Which of the following is **NOT** a requirement of the Periodic Inspection and Test Report?

- a) the form should be accompanied by a Schedule of test Results
- b) the form should be signed by the person carrying out the Inspection and Test
- c) the form should be signed by the engineer of the Regional Electricity Company (REC)
- d) the form should be sent to the originator of the request for the Periodic Inspection and Test

10. When carrying out a detailed inspection, which one of the following must be verified?

- a) presence of fire barriers
- b) prospective short circuit current
- c) the circuit earth loop impedance
- d) the correct operation of RCDs

11. Which one of the following does **NOT** influence the frequency of periodic inspection and testing of an installation?

- a) the type of installation
- b) formal qualification of the Inspection and Test staff
- c) frequency of maintenance
- d) any external influence to which it is subjected

12. When testing a three phase and neutral installation for insulation resistance to earth using a 1000 V insulation resistance tester, with all live conductors connected together, the minimum insulation resistance should not be less than:

- a) 0.5 M@
- b) 1 M@
- c) 2 M@
- d) 0.25 M@

13. For an initial verification of an electrical installation, which test would be carried out first?

- a) earth continuity test
- b) insulation resistance test
- c) RCD test
- d) earth loop impedance test

14. The minimum value of insulation resistance between live conductors of an SELV circuit is:

- a) 2 Mohm
- b) 0.25 Mohm
- c) 0.5 Mohm

d) 1 Mohm

15. Given the following numbered tests, select the sequence in which the first four tests should be conducted for a new installation:

1. Functional 2. Insulation Resistance 3. Polarity 4. Continuity of Ring Final Conductors 5. Continuity of Protective Conductors

- a) 1, 3, 4, 5
- b) 4, 5, 3, 2
- c) 5, 4, 2, 3
- d) 2, 3, 4, 5

16. Which of the following is **NOT** a requirement for an inspection of an electrical installation?

- a) compliance with Section 511 of BS 7671
- b) correctly selected and erected in accordance with BS 7671
- c) not visibly damaged or defective so as to impair safety
- d) complies with the requirements for portable appliance testing

17. Statement 1 – a polarity test is carried out with an insulation resistance tester

Statement 2 – a polarity test will confirm that the screw thread of an Edison screw lamp holder is connected to the neutral of the supply

- a) both statements are true
- b) Statement 1 is true, Statement 2 is false
- c) Statement 1 is false, Statement 2 is true
- d) both statements are false

18. Which one of the following tests would be conducted to verify protection by electrical separation of SELV circuits?

- a) a penetration test using a 1mm diameter wire to IP4X
- b) a high current injection test
- c) an insulation resistance test at 250 V d.c
- d) a withstand voltage of at least 2kV rms

19. The minimum insulation resistance value between live conductors on a 230 V lighting circuit is:

- a) 1 M@
- b) 0.25 M@
- c) 0.5 M@
- d) 2 M@

20. Which of the following items of information is **NOT** required by the person carrying out an inspection and test on an installation:

- a) the type of earthing arrangement employed
- b) the maximum demand after diversity has been applied
- c) the maximum demand before diversity has been applied
- d) the method selected to prevent danger from shock in the event of an earth fault

21. For a completed electrical installation, the minimum insulation resistance reading when applying a test voltage of 500V d.c. is:

- a) 1 M@
- b) 500 M@
- c) 1 M@
- d) 0.5 M@

22. Of the following, which is **NOT** an item of information to be made available to the person conducting the inspection and test of a new installation?

- a) the maximum demand after diversity has been applied
- b) the nominal voltage and frequency
- c) the type of earthing arrangement
- d) the location of the Regional Electricity Company's supply transformer

Answers:

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- 3 B Page 156
- 4 A Page 158
- 5 A Page 157
- 6 D Page 158
- 7 D Page 156
- 8 A Page 163
- 9 C Page 162
- 10 A Page 156
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- 22 D Page 38