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 MΩ
   b) 1 MΩ
   c) 0.5 MΩ
   d) 0.25 MΩ

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:
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
15. Given the following numbered tests, select the sequence in which the first four tests should be conducted for a new installation:
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 MΩ  
b) 0.25 MΩ  
c) 0.5 MΩ  
d) 2 MΩ

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:

1 B Page 158
2 B Page 158
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
11 B Page 162
12 B Page 158
13 A Page 156
14 C Page 158
15 C Page 158
16 D Page 158
17 C Page 159
18 C Page 159
19 A Page 158
20 C Page 156
21 A Page 158
22 D Page 38