

2382-20 Sample questions

1. BS 7671 applies to:
 - a) Aircraft
 - b) Photovoltaic supplies
 - c) Distributors equipment
 - d) Electrical equipment of machines

2. BS 7671 does not apply to:
 - a) railway traction equipment
 - b) photovoltaic systems
 - c) marinas
 - d) fairgrounds

3. Protection against electric shock under single fault conditions is:
 - a) basic protection
 - b) fault protection
 - c) additional protection
 - d) supplementary protection

4. Which of the following would not be defined as a live part?
 - a) Neutral conductor
 - b) Line conductor
 - c) Neutral bar
 - d) PEN conductor

5. Every installation should be divided into circuits as necessary to avoid:
 - a) Fuse discrimination problems
 - b) hazards and to minimise inconvenience in the event of a fault
 - c) unauthorised interference with safety supplies
 - d) Wiring impracticability

6. The protective measure 'automatic disconnection of supply'
 - a) is only permitted if the installation is under effective supervision
 - b) is a method of reducing thermal effects
 - c) is a combination of basic and fault protection
 - d) is a combination of under and over voltage protection

7. The maximum disconnection time for a 16A final circuit having U_0 230V ac on a TN system is:
- a) 5 s
 - b) 0.2 s
 - c) 0.4 s
 - d) 0.1 s
8. Where there is a danger of fire due to the nature of stored materials a motor with star – delta starting must be protected against excessive temperature:
- a) in star
 - b) in delta
 - c) in both star and delta
 - d) only if 10 kw or more
9. In the event of failure of the provision for basic protection, additional protection may be provided by:
- a) Supplementary bonding
 - b) Use of a time delay 100mA RCD
 - c) Use of a RCD with $I_{\Delta n}$ not exceeding 30mA
 - d) Electrical separation
10. Which of the following is not a method of fault protection:
- a) placing out of reach
 - b) use of class II equipment
 - c) earthing and bonding
 - d) electrical separation
11. For a TT system where disconnection in the case of earth fault is achieved by RCD, the maximum disconnection time for a general socket in a domestic kitchen is:
- a) 0.1s
 - b) 0.2s
 - c) 0.4s
 - d) 5s
12. In the event of an earth fault on the HV side of a substation the LV installation may be affected by:
- a) power frequency fault currents??
 - b) power frequency stress voltages
 - c) power current stresses
 - d) power plus current stresses

13. Connection of extraneous conductive parts to the MET of an installation forms part of the requirements for:
 - a) SELV
 - b) enclosures
 - c) basic protection
 - d) fault protection

14. Thermoplastic PVC T&E buried less than 50mm must be protected by:
 - a) MCB
 - b) cpc the same size as the P & N
 - c) 30mA RCD
 - d) Disconnection time of 0.4s

15. RCD installed for protection against fire must have a rating not exceeding:
 - a) 30 mA
 - b) 100 mA
 - c) 300 mA
 - d) 500 mA

16. Which of the following may not be used as an earth electrode:
 - a) Underground structural steel work
 - b) Welded metal reinforcement
 - c) Water utility supply pipes
 - d) Earth plates

17. Socket outlets with a rating not exceeding 20A for general use by ordinary persons should be:
 - a) connected as a ring circuit
 - b) connected as a radial circuit
 - c) protected by a 30mA RCD
 - d) protected by a 20A CB

18. Lighting installations in bus shelters must be protected by:
 - a) CCTV
 - b) Double pole circuit breakers
 - c) Graffiti proof covers
 - d) 30mA RCD

19. Busbar trunking systems must comply with:
- a) BSEN 60439-2
 - b) BSEN 61534-1
 - c) BSEN 60898-7
 - d) BSEN 60309-2
20. The minimum acceptable value for insulation resistance in 230v supply is:
- a) 0.25 M Ω
 - b) 0.5 M Ω
 - c) 1.0 M Ω
 - d) 5.0 M Ω
21. Insulation resistance measured between line and neutral of a 230v domestic installation should not be less than:
- a) 0.25 M Ω
 - b) 0.5 M Ω
 - c) 0.75 M Ω
 - d) 1.0 M Ω
22. A PV generator and array junction box must have a warning label indicating that:
- a) High voltage is present
 - b) Parts inside may still be live following isolation
 - c) PV array must be cleaned regularly
 - d) PV arrays are fragile
23. All circuit in a bathroom must have:
- a) protection by a 30mA RCD
 - b) a disconnection time of 5s
 - c) supplementary bonding
 - d) protected by a CB
24. Electrical cables in Zone 1 of a fountain shall be protected against mechanical impact to:
- a) AG 1
 - b) AG 2
 - c) AH 2
 - d) AH 3

25. On agricultural premises an RCD may be used for protection against fire providing that the rating of the RCD does not exceed:
- a) 30 mA
 - b) 150 mA
 - c) 300 mA
 - d) 500 mA
26. Any luminaries of lighting chains used at a circus must be firmly fixed when at a height less than:
- a) 1m
 - b) 1.5m
 - c) 2m
 - d) 2.5m
27. In a bathroom the protective measure of obstacles is:
- a) allowed in all zones
 - b) allowed in zones 1 & 2
 - c) allowed in zone 2 only
 - d) not allowed
28. Where a TN system of earthing is used in a marina the final circuits for the supply of a pleasure craft must not include:
- a) any earth conductors
 - b) a PEN conductor
 - c) any RCD's
 - d) protective devices
29. for a 100mA non-delay RCD to BSEN 61008 the residual test currents and maximum permitted disconnection times are:
- | | | | | |
|----|--------|-------|--------|-------|
| a) | 100m A | 300ms | 500mA | 40ms |
| b) | 100mA | 130ms | 1500mA | 150ms |
| c) | 100mA | 0ms | 100mA | 40ms |
| d) | 100mA | 400ms | 500mA | 50ms |
30. Flat T & E cable clipped direct to a ceiling joist where thermal insulation exceeds 100mm thickness is installation method:
- a) 101
 - b) 100
 - c) 3
 - d) 20