

Sample Questions - C&G 2382 17th Edition paper C

1 o/c 1 - BS 7671 relates to permanent and temporary installations for equipment on:

- a marinas.
- b ships.
- c equipment on aircraft.
- d railway traction equipment.

2 o/c1 Which one of the following types of electrical installation is not covered by BS 7671?

- a High protective conductor current installations
- b Lightning protection of buildings
- c Conducting locations with restricted movement
- d Highway power supplies

3 o/c 2 An area or temporary structure used for display, marketing or sales is defined as

- a a booth
- b a stand
- c an exhibition
- d a show.

4 oc2 A protective conductor connecting exposed-conductive-parts of equipment to the main earthing terminal is known as the

- a earthing conductor
- b main bonding conductor
- c circuit protective conductor
- d bonding conductor

5 oc3 When making an assessment of the frequency and quality of maintenance, a factor to be considered is that

- a power factor is monitored
- b protective measures for safety remain effective
- c starting currents are at a minimum
- d unbalanced loads need to be checked more frequently.

6 oc4 What is the required minimum impulse withstand voltage for category IV equipment for use in an installation with nominal voltage of 400/690?

- a 2.5 kV
- b 4kV
- c 6kV
- d 8kV

7 o/c4 In locations with increased risks of fire, motors which are automatically or remotely controlled, or which are not continuously supervised, shall be protected against excessive temperature by

- a a protective device that is automatically reset
- b a protective device with manual reset
- c electronic monitoring equipment that resets
- d electronic monitoring equipment that restarts the motor.

8 Oc4 An undervoltage device has operated and restoring the supply may cause danger. The reclosure of this device should be

- a automatic when under the supervision of a competent person
- b manually operated
- c possible only with the use of a key or tool
- d automatic with time delay.

9 o/c 4 Except for equipment for which an appropriate product standard specifies requirements, a luminaire shall be kept at an adequate distance from combustible materials. Unless otherwise recommended by the manufacturer, a small spotlight or a projector rated at over 100 W and up to 300 W shall be installed at the following minimum distances from combustible materials.

- a 0.3M
- b 0.5M.
- c 0.8M.
- d 1.1M

10 o/c 4- Correct co-ordination between circuit conductors and an overcurrent protection device is achieved when:

- a I_n exceeds the lowest current carrying capacity I_z .
- b I_n is less than the design current I_b .
- c I_b is less than I_z .
- d I_z is lower than or equal to I_b

11 o/c 4 Max Z_s for a TT system with a 300mA RCD

- 1667 ohms
- 500 ohms
- 167 ohms
- 100 ohms

12 o/c 4 - In the event of a fault the likely result due to the circuit earth loop impedance being higher than allowed in BS 7671 is:

- a the cable may be damaged before the protective device operates under fault conditions.
- b the protective device will be damaged due to high fault currents.
- c the protective device will have to be replaced.

d a short-circuit current will not operate the protective device.

13 o/c4 In the event of an earth fault on the HV side of a substation the LV installation may be affected by

- a V
- b U
- c I
- d I^2t .

14 oc5 Which of the following is not a BS 7671 requirement when installing a heating cable laid directly in soil?

- a It is completely embedded in the soil
- b It does not suffer damage in the event of normal movement
- c It complies with the manufacturer's instructions
- d It is protected by a 500 mARCD

15 oc 5 The minimum information contained on a periodjc inspection and testing notice would be the

- a date of inspection and inspector's name
- b date of next inspection and client's name
- c date of last inspection and date of next inspection
- d company's address and date of next inspection.

16 o/c5 An earthing conductor buried in the ground is protected against corrosion by a sheath, but is not protected against mechanical damage. The minimum size copper conductor that may be installed is

- a 2.5mm^2
- b 16mm^2
- c 25mm^2
- d 50mm^2 .

17 o/c5 An RCD that is installed for protection against the risk of fire where combustible materials are stored shall be

- a installed at the farthest point of the circuit
- b installed at the origin of the circuit
- c arranged to switch line conductors
- d rated at 500mA.

18 o/c5 - Every firepersons switch should be:

- a coloured RED with the OFF position at the top.
- b coloured BLUE with the OFF position at the top.
- c coloured RED with the ON position at the top.
- d coloured BLUE with the OFF position at the top.

19 o/c5 A cable concealed in a wall outside the prescribed zones at a depth of less than 50 mm must

- a not be installed
- b be enclosed in unearthed conduit
- c be enclosed in earthed metallic conduit
- d be protected by a 500 mA RCD.

20 o/c6 The test voltage and minimum insulation resistance value for a PELV circuit is

- a 250 V, 1 M Ω
- b 500V, 0.5 M Ω
- c 230V, 1 M Ω
- d 250V, 0.5 M Ω .

21 oc 6 Additional work is carried out to an installation, which comprises a socket-outlet added to an existing circuit. The paperwork to be completed would be

- a a Periodic Inspection Report
- b a Schedule of Test Results
- c a Minor Electrical Installation Works Certificate
- d a Schedule of Inspections.

22 oc 7 The particular requirements for mobile or transportable units apply to

- a generating sets
- b mobile workshops
- c mobile machinery to BS EN 60204-1
- d traction equipment of electric vehicles.

23 oc7 In caravans, each final circuit shall be protected against overcurrent by a device that disconnects

- a all live conductors in that circuit
- b the line conductors only
- c line, neutral and protective conductors
- d the caravan and site supply system.

24 o/c 7 Any cable intended to supply temporary exhibition structures shall have, at its origin, an RCD having a maximum rated residual operating current of

- a 30mA
- b 100mA
- c 300mA
- d 500mA.

25 o/c 7 - Construction site special regulations apply to:

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-4

- a earthworks.
- b site offices .
- c site canteens.
- d site toilets

26 The maximum disconnection time for circuits feeding fixed equipment used in highway power supplies is:

- a. 20ms
- b. 40ms
- c. 1 second
- d. 5 seconds

27 o/c 7 Where an electric heating element is embedded in the floor of a bathroom it should be:

- a covered by an earthed metal grid.
- b buried to a depth not less than 50 mm.
- c double insulated.
- d supplied from an ELV source.

28 o/c 7 - On a construction site a final circuit exceeding 32A and supplied by a TT system shall have a disconnection time not exceeding:

- a 0.2 seconds.
- b 0.3 seconds.
- c 0.8 seconds.
- d 1.0 seconds.

29 2 o/c8 **A flat twin and earth cable clipped direct to a ceiling joist where the thermal insulation does not exceed 100 mm thickness is installation method**

- a 100**
- b 101**
- c 102**
- d 103.**

30 oc8 **A BS 3036 f 00 A fuse, when carrying 1800 A, has a disconnection time of**

- a 0.2 second
- b 0.4 second
- c 4 seconds
- d 5 seconds.

Answers below

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sec 443 table 44.3

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422.3.7

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- a automatic when under the supervision of a competent person
- b manually operated**
- c possible only with the use of a key or tool

d automatic with time delay.

Answer b See Part 4: Protection for safety, Regulation 445.1.5.

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a 0.3M

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c 0.8M. (422.3.1)

d 1.1M

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Answer b See Part 4: Protection for safety, Regulation 442.2

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554.4.3

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- b date of next inspection and client's name
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542.3.1 table 54.1

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- b installed at the origin of the circuit**
- c arranged to switch line conductors
- d rated at 500mA.

Answer b

See Part 5: Selection and erection of equipment, Regulation 532.1.

Where a 30 mA RCD is installed upstream of a residual current monitor (RCM), the rating of the RCM shall not exceed

Answer b

See Part 5: Selection and erection of equipment, Regulation 559.4 and Table 55.2.

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- c be enclosed in earthed metallic conduit**
- d be protected by a 500 mARCD.

Answer c See Part 5: Selection and erection of equipment, Regulation 522.6.6

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- a 250 V, 1 M Ω
- b 500V, 0.5 M Ω
- c 230V, 1 M Ω
- d 250V, 0.5 M Ω .**

Answer d See Part 6: Inspection and testing, Regulation 612.3.2, Table 61.

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631.3

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- a 30mA
- b 100mA
- c 300mA**

d 500mA.

Answer c

See Part 7: Special installations or locations, Regulation 711.410.3.4

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b site offices .

c site canteens.

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a 100

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Answer a See Appendices: Appendix 4, Table 4A2.

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