

Sample Questions - C&G 2382 17th Edition PaperB

**1 o/c1 Electrical installation design shall take into account**

- a electromagnetic disturbances
- b direct lightning strikes
- c current world copper prices
- d local authority planning approval.

**2 oc1 The selection of the type of wiring and method of installation is not influenced by**

- a the nature of the location
- b the load current
- c the value of the prospective short-circuit current
- d the nature of the structure supporting the wiring.

**3 o/c2 The symbol used to show that a BS 88 device has a motor circuit application is**

- a  $gG$
- b  $gM$
- c  $I_z$
- d  $I_2$ .

**4 oc2 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.

**5 Which of the following supply characteristics would need to be ascertained for a new domestic installation?**

- a Number of points of utilization
- b The supply transformer type
- c The supply cable size
- d The nature of the current and frequency

**6 o/c4 Basic protection may be provided by**

- a barriers and enclosures to IPXXB or IP2X
- b fuses and circuit-breakers
- c supplementary equipotential bonding
- d backup protection.

**7 o/c 4 - Which of the following items does not offer 'basic' protection:**

- a a circuit protective conductor.
- b a socket outlet.
- c a lampholder.
- d equipotential bonding conductors.

8 18 o/c4 - Class II equipment is used as a measure of:

- a overvoltages.
- b indirect protection.
- c basic protection.
- d fault protection.

9 o/c4 table 41.3 - Maximum earth fault loop impedance, according to BS 7671:2008, for 6A Type B circuit breakers giving compliance to 0.4s disconnection time will be:

- a 7.67 ohms.
- b 8.00 ohms.
- c 8.52 ohms.
- d 16.4 ohms.

10 o/c4 table 41.1 - All final circuits supplied at 230V and not exceeding 32A shall have a maximum disconnection time not exceeding:

- a 0.2s.
- b 0.4s.
- c 0.8s.
- d 5.0s.

11 o/c 4 Which is a method of fault protection

- 1 out of reach
- 2 Reinforced insulation
- 3 Obstacles
- 4 Insulation of live parts

12 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.

13 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.

14 o/c 5 - Circuits feeding fixed equipment used in highway power supplies shall have a maximum disconnection time of:

- a 0.2 seconds.
- b 0.4 seconds.
- c 2.0 seconds.
- d 5.0 seconds.

- 15 o/c 5 - A main switch must be capable of withstanding:
- the prospective short circuit current at that point.
  - twice the earth loop fault current.
  - twice the prospective short circuit current.
  - twice the maximum demand.
- 16 o/c5 A wiring system is to be installed between a safety source and a main distribution board. The risks required to be reduced to a minimum do not include
- short-circuit
  - earth fault
  - ageing
  - fire.
- 17 o/c5 514.4.2 - Single core protective conductors coloured green and yellow shall have one of the colours cover the surface at least and at most:
- 30% and 70%.
  - 20% and 80%.
  - 50% and 50%.
  - 40% and 60%.
- 18 o/c5 A plug and socket-outlet may be used for switching off for mechanical maintenance as long as it does not have a rating exceeding
- 13A
  - 16A
  - 32A
  - 45A.
- 19 oc5 Where more than one firefighter's switch is installed on any one building, each switch must be
- not more than 3.75m from the ground
  - in a locked location to prevent nuisance operation
  - electrically linked -
  - clearly marked.
- 20 o/c6 A simple method to allow for measured values of loop impedance to be effectively compared with tabulated maximum values is to correct these maximum values by multiplying them by
- 0.75
  - 0.8
  - 1.2
  - 1.8.
- 21 oc6 When completing an Electrical Installation Certificate, the person who does not have to sign the certificate would be the
- tester
  - client

- c constructor
- d designer.

22 o/c7 - Which one of the following protective measures is not applicable to equipment in Zone 2 of a swimming pool:

- a individual protection by electrical separation.
- b protection by obstacles.
- c SELV.
- d protection by an RCD in accordance with Regulation 415.1.1.

23 o/c7 **Within a conducting location with restricted movement, supplies to 110 V mobile equipment must provide protection against electric shock by the use of**

- a electrical separation
- b Class II protection
- c obstacles
- d PELV.

24 o/c7 The minimum cross sectional area for a cable carrying up to 25A in a caravan shall be:

- a 2.5mm<sup>2</sup>.
- b 4mm<sup>2</sup>.
- c 6mm<sup>2</sup>.
- d 10mm<sup>2</sup>.

25 o/c 7 - In marinas, equipment installed above a jetty and where it might be subject to water splashes shall have a degree of ingress protection to at least:

- a IPX4.
- b IPX5.
- c IPX6.
- d IPX7.

26 o/c 7 - If cleaning by use of water jets in a room containing a sauna heater electrical equipment shall have a degree of protection against ingress of at least:

- a IP5X.
- b IP X5.
- c IP4X.
- d IPX4.

27 o/c 7 - In agricultural premises an RCD may be used for protection against fire. The current rating should not exceed:

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

28 oc7 **Electrical equipment in a circus installation must have a degree of protection of at least**

- a IP33
- b IP4X
- c IP44
- d IPX8.

29 o/c 8 app7 - The positive and negative conductors in two-wire unearthed d.c. power circuits are identified by the colours:

- a red and black.
- b red and blue.
- c brown and grey.
- d brown and black.

30 oc8 A  $2.5 \text{ mm}^2$  thermoplastic insulated and sheathed flat cable with protective conductor is laid in a ceiling beneath thermal insulation 80 mm thick in contact with the ceiling board, as shown in the figure below. What is its installed rating?

- a 17 A
- b 20A
- c 21A
- d 27 A

answers below

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**Answer a** See Part 1: Scope, Regulation 131.6.4.

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- a the nature of the location
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- d the nature of the structure supporting the wiring.

132.7

**3 o/c2 The symbol used to show that a BS 88 device has a motor circuit application is**

- a gG
- b gM
- c I<sub>z</sub>
- d I<sub>2</sub>.

**Answer b** See Part 2: Definitions, Symbols.

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- c The supply cable size
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**Answer d**

See Part 3: Assessment of general characteristics, Regulation 313.1.

**6 o/c4 Basic protection may be provided by**

- a barriers and enclosures to IPXXB or IP2X
- b fuses and circuit-breakers
- c supplementary equipotential bonding
- d backup protection.

**Answer a** See Part 4: Protection for safety, Regulation 416.2.1.

7 o/c 4 - Which of the following items does not offer 'basic' protection:

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- b a socket outlet.
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- d automatic with time delay.

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

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## 422.3.7

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16 o/c5 A wiring system is to be installed between a safety source and a main distribution board. The risks required to be reduced to a minimum do not include

- a short-circuit
- b earth fault
- c ageing**
- d fire.

**Answer c** See Part5: Selection and erection of equipment, Regulation 560.8.3.

17 o/c5 514.4.2 - Single core protective conductors coloured green and yellow shall have one of the colours cover the surface at least and at most:

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- c 1.2
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**Answer b** See Part 6: Inspection and testing, Regulation 612.9, and Appendix 14.

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632.3

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**Answer a** See Part 7: Special installations or locations, Regulation 706.410.3.10.

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740.512.2

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app4 table 4A2 method 100 and table 4D5