

C&G 2382. 17th Edition (BS7671:2008) Examination

(You should allow 1 hour 10 minutes for this 40 question Mock-exam)

- 1. The Regulations (BS7671:2008) do NOT apply to**
 - a. Residential Premises
 - b. Industrial Premises
 - c. Lightning Protection
 - d. Street Furniture

- 2. The Regulations do apply to**
 - a. Offshore Installations
 - b. Mines & Quarries
 - c. Lift Installations
 - d. Low Voltage Generators

- 3. Which of the Following documents are deemed Non- Statutory**
 - a. BS7671:2008
 - b. EAWR 1989
 - c. HASAW 1974
 - d. ESQCR 2002

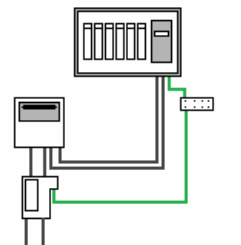
- 4. Parts 3 – 7 of BS7671:2008 are explained in rudimentary terms within**
 - a. Chapter 13
 - b. Chapter 12
 - c. Part 3
 - d. Appendix 5

- 5. Basic protection is defined as**
 - a. Protection against shock under fault conditions
 - b. Protection against shock under fault free conditions
 - c. Protection against contact with live parts under fault free conditions
 - d. Protection against faults under sound electrical conditions

- 6. Equipment in which protection against electric shock does not rely on basic insulation only is described as**
 - a. Double Insulated Equipment
 - b. Class I Equipment
 - c. Class II Equipment
 - d. Class III Equipment

- 7. The Earthing System illustrated in Figure 1 below would be identified as a**
 - a. TN-S
 - b. TT
 - c. TN-C-S
 - d. IT

Figure 1



8. A Voltage of 250Volts AC (rms) would be defined as

- a. Band I
- b. Extra Low Voltage
- c. High Voltage
- d. Low Voltage

9. In determining Maximum Demand, 'Diversity' may be applies, which is

- a. Taking the sum of all the protective devices from any CCU
- b. Taking into account that not all loads will be switched on at the same time
- c. Taking into account that all loads doubtless will be engaged at the same time
- d. Ensuring that an economical and reliable design preference is utilised.

10. Every Installation is divided into circuits in order to

- a. Ensure simplicity of isolation
- b. Comply with European Standards
- c. Avoid hazards and prevent inconvenience in the event of a fault
- d. Allow individual energising of circuits which are not isolated

11. A building made entirely out of wood would be categorised for External Influences as

- a. CA2
- b. CA1
- c. CB3
- d. CB4

12. The Maximum Disconnection time for an a.c. TN circuit rated at 230V is

- a. 0.04 seconds
- b. 0.1 seconds
- c. 0.4 seconds
- d. 0.2 seconds

13. The Maximum Zs for a BSEN60898 Type C circuit breaker rated at 16Amps with a 0.4second disconnection time is

- a. 2.87Ω
- b. 1.44Ω
- c. 0.72Ω
- d. 1.15Ω

14. For a TT System the Maximum earth fault loop impedance for a 100mA BSEN61008-1 RCD in a 230Volt circuit is

- a. 500Ω
- b. 460Ω
- c. 167Ω
- d. 100Ω

15. Where, on electrical equipment, must the symbol in figure 2 be present



Figure 2

- a. Where basic and supplementary earthing is present on an appliance
- b. Where supplementary earth-bonding to an appliance is not present
- c. Where electrical equipment has basic insulation only
- d. Where Class I equipment is served from a sub-main CCU

16. Where Basic Protection is employed in the form of a barrier or enclosure, any horizontal top surface must meet a protection level of at least

- a. IPDXX
- b. IP2X
- c. IPXX3
- d. IP4X

17. Except if made from adequate material, a luminaire rated at 200Watts should be located away from combustible material by

- a. 0.3m
- b. 0.5m
- c. 0.8m
- d. 1.0m

18. To avoid burning, a non-metallic part intended to be touched but not hand held cannot exceed

- a. 80°C
- b. 85°C
- c. 90°C
- d. 95°C

19. In relation to Voltage Disturbances, the resistance of the earthing arrangement at the Transformer is referred to, within the area of symbols, as

- a. RA
- b. RB
- c. RD
- d. RE

20. Every core of a cable shall be identifiable at its terminations and preferably throughout its length by

- a. colour code only
- b. letter code only
- c. number code only
- d. one or more of the above

21. An appropriate colour for a PEN conductor should be:

- a. blue through its length with green markings at the terminations
- b. green & yellow through its length with blue markings at the terminals
- c. green & yellow through its length with brown markings at its terminals.
- d. Green through its length with yellow markings at the terminals

22. A permanent label with the words 'Safety Electrical Connection – Do Not Remove', complies with:

- a. BS728
- b. BS1363
- c. BS951
- d. BS423

23. A cable buried underground but not in conduit or ducting for mechanical protection must incorporate

- a. An earthed armour or metal sheath or both
- b. A surface covering of 50mm thickness paving stones
- c. A clear surface warning notice informing of its location
- d. A PVC outer sheath

24. The de-rating factor for a cable surrounded by 50mm of thermal insulation is

- a. 0.88
- b. 0.78
- c. 0.63
- d. 0.51

25. In an L.V installation supplied directly from a public L.V distribution system the maximum volt drop on a lighting circuit between the origin and any load point should be no greater than

- a. 6% U_0
- b. 5% U_0
- c. 4% U_0
- d. 3% U_0

26. Every electrical inspection shall be accessible for inspection, testing and maintenance purposes except for which of the following

- a. A connection made in a junction box beneath floorboards
- b. A connection made within a motor control unit
- c. A connection designed to withstand fault current
- d. A compound filled or encapsulated joint

27. The rated RCD operating current of such a device installed as a protection against risk of fire in a TT system shall have a value of

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

- 28. The maximum prospective short circuit or earth fault current in a circuit should not exceed**
- The operating current of circuit switching devices
 - The rated breaking capacity of any associated protective device
 - The design current of the circuit
 - The rated operating current of any RCD in circuit
- 29. Which of the following switching devices may be satisfactorily utilised for the purposes of isolation?**
- BSEN60669-2-4
 - BSEN60669-2-3
 - BSEN60669-2-1
 - BSEN60669-1
- 30. When using bare conductors in extra low voltage lighting installations supplied from a safety isolating transformer the minimum permissible cross sectional area of conductors must be**
- 1.5mm²
 - 2.5mm²
 - 4mm²
 - 6mm²
- 31. Suspension devices for ELV luminaries must in any case be capable of supporting at least**
- 5 Kg
 - 7.5 Kg
 - 10 Kg
 - 20 Kg
- 32. An automatic electrical safety service supply classed as medium break must, in the event of losing the main supply, instate the safety service supply in a time period of**
- between 0.15 & 0.5 seconds
 - between 0.5 & 5 seconds
 - between 5 & 15 seconds
 - greater than 15 seconds
- 33. The minimum value of Insulation Resistance for a 230Volt system must be**
- ≥0.25 MΩ
 - ≥0.5 MΩ
 - ≥1.0 MΩ
 - ≥2.0 MΩ
- 34. Correct Polarity must ensure that every ES lamp-holder have their outer or screwed contacts connected to the neutral conductor, except for**
- E14 & E27 Lampholders
 - E14 & BSEN60895 Lampholders
 - E27 & BSEN61009 Lampholders
 - E11 & E24 Lampholders

35. To comply with PART 6 of BS7671, Periodic Inspection & Testing shall be specifically undertaken by

- a. A formally qualified Test Engineer
- b. A person deemed as the 'Duty Holder' of the company carrying out the work
- c. A expressly skilled person
- d. A competent person

36. Zone 2 of a bathroom is restricted to the highest water outlet or the horizontal plane lying above finished floor level by

- a. 3.00m
- b. 2.50m
- c. 2.25m
- d. 2.00m

37. In Zone 3 of a Sauna equipment must be able to withstand a minimum temperature of

- a. 100°C
- b. 120°C
- c. 125°C
- d. 170°C

38. In marinas, equipment installed above a jetty or wharf, which is likely to encounter water jets, shall be selected to comply with external influence levels of

- a. (AD4): IPX4
- b. (AD5): IPX5
- c. (AD6): IPX6
- d. (AE6): IPX5

39. For a BS88-2.2 Fuse rated at 25A to obtain a 0.4sec disconnection time, it would require a minimum prospective fault current of

- a. 160A
- b. 130A
- c. 100A
- d. 85A

40. A 30Amp Semi Enclosed BS3036 Fuse receiving a prospective fault current of 130A would disconnect in

- a. 5.0sec
- b. 1.0sec
- c. 0.4sec
- d. 0.2sec

Answers:

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2. D Part 1 -110.1 Page 12
3. A Part 1 -114.1 Page 13
4. A Part 1 -120.3 Page 14
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