Dear Customer

**Re: Exam Success IEE Wiring Regulations 2382-20**

We would like to thank you for purchasing this book and hope that you are finding it invaluable in your studies. We are writing to inform you that we have made updates to four pages in order to provide you with the most accurate and quality controlled product.

Please find the revised pages enclosed. A summary of these changes is given below.

Page 37, Question 8 – ohm symbol has been added
Pages 47 and 54, Question 6 – the question has been changed
Page 56, Question 13 – subscript characters have been added for options a, b and c

Please let us know if you have any queries or concerns about these essential amendments.

Best wishes

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8. A 6A BS EN 61009 RCBO with a maximum value of earth fault loop impedance of 1.92 Ω is type

- a. A
- b. B
- c. C
- d. D.

Answer: d
See Part 4: Protection for safety, Regulation 411.4.7, Table 41.3.

9. The maximum disconnection time for a circuit supplied by a reduced low voltage system using a 110 V midpoint earthed transformer is

- a. 0.2 second
- b. 0.4 second
- c. 1 second
- d. 5 seconds.

Answer: d
See Part 4: Protection for safety, Regulation 411.8.3.

10. Where basic protection and/or fault protection is provided, certain external influences may require additional protection provided by

- a. obstacles
- b. placing out of reach
- c. the use of 30 mA RCDs
- d. the use of time delayed 100 mA RCDs.

Answer: c
See Part 4: Protection for safety, Regulation 415.1.1.

11. The horizontal top surface of a barrier or enclosure which is readily accessible shall provide a degree of protection of at least

- a. IP55 or IP66
- b. IPX4 or IPXX7
- c. IPXXB or IP2X
- d. IPXXD or IP4X.

Answer: d
See Part 4: Protection for safety, Regulation 416.2.2.
Section 3

5 The effectiveness of protective measures should be considered with regard to

○ a external influences
○ b safety services
○ c maintainability
○ d compatibility.

Section 4

6 The measure of automatic disconnection of supply is employed for a circuit supplying 13 A socket-outlets intended for general use by ordinary persons. Which of the following does not contribute to the provision of fault protection?

○ a Protective earthing
○ b Protective equipotential bonding
○ c Additional protection by RCD
○ d Reinforced insulation

7 Where \( U_0 \) is 230 V and \( I_a \) is 100 A, the value of \( Z_s \) will be

○ a 0.43 Ω
○ b 2.3 Ω
○ c 23 Ω
○ d 0.023 MΩ.

8 The maximum value of earth fault loop impedance \( (Z_s) \) for a circuit protected by a 100 mA RCD forming part of a 230 V a.c. TT system is

○ a 500 Ω
○ b 460 Ω
○ c 167 Ω
○ d 92 Ω.

9 The maximum value of earth fault loop impedance \( (Z_s) \) for a 25 A BS EN 60898 type D circuit-breaker protecting a 110 V single-phase reduced voltage circuit is

○ a 0.44 Ω
○ b 0.26 Ω
○ c 0.22 Ω
○ d 0.11 Ω.
4 The symbol used to show that a BS 88 device has a motor circuit application is

- a gG
- b gM
- c I₂
- d I₂.

Answer b
See Part 2: Definitions, Symbols.

Section 3

5 The effectiveness of protective measures should be considered with regard to

- a external influences
- b safety services
- c maintainability
- d compatibility.

Answer c
See Part 3: Assessment of general characteristics, Regulation 341.1.

Section 4

6 The measure of automatic disconnection of supply is employed for a circuit supplying 13 A socket-outlets intended for general use by ordinary persons. Which of the following does not contribute to the provision of fault protection?

- a Protective earthing
- b Protective equipotential bonding
- c Additional protection by RCD
- d Reinforced insulation

Answer d
See Part 4: Protection for safety, Regulation 411.1 (ii).
11 Basic protection may be provided by
- barriers and enclosures to IPXXB or IP2X
- fuses and circuit-breakers
- supplementary equipotential bonding
- backup protection.

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

12 Which of the following need not be tested under fire conditions to ensure compliance with non-flame propagating requirements?
- Cables
- Protective devices
- Conduit systems
- Trunking systems

Answer b
See Part 4: Protection for safety, Regulation 422.2.1.

13 In the event of an earth fault on the HV side of a substation the LV installation may be affected by
- \( U_0 \)
- \( U_f \)
- \( I_d \)
- \( I_{\text{t}} \).

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

Section 5

14 A cable concealed in a wall outside the prescribed zones at a depth of less than 50 mm must
- not be installed
- be enclosed in unearthed conduit
- be enclosed in earthed metallic conduit
- be protected by a 500 mA RCD.

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