



LICENSED ELECTRICIANS ASSESSMENT (LEA)

Licensed Electricians Theory Examination SAMPLE EXAMINATION

Answers

WIRING RULES

Question 1: Taking account of all relevant information available for any particular electrical installation.

W.R. Clause: 2.2.2 (a)

Question 2: Where soldering is used for the jointing of earthing conductors, the earthing conductors shall be retained in position by acceptable means independently of the solder.

W.R. Clause: 3.7.2.11 (a)

Question 3: PELV is an extra low voltage system that is not electrically separated from earth, but that otherwise satisfies all the requirements for SELV.

W.R. Clause: 1.4.76

Question 4: Yes!

W.R. Clause: 5.5.2.1 (b)

Question 5: 200mm

W.R. Clause: 4.5.2.3(d) Fig. 4.7

Construction & Demolition Sites:

Question 6: By using cable sheaths of a different color

Clause No: 2.5.4

Electrical Safety (Installations) Regulations - 2009

Question 7: No

Regulation No: 232

Electric Shock Survival:

Question 8: (Verbal & Tactile stimuli)
Touch & talk

Cable Selection:

Question 9: Table 14, Column 23
Table 25(2) Columns 2
Table 25(2) Column 4

(i) 330.4A

(ii) 371.2A

DC Circuits:

Question 10:

- I. 1A
- II. 45V
- III. 25W

Maximum Demand:

Question 11: Table C1 Column 2
Load Group A(i) 5A
Load Group B(i) 15A
Load Group B(iii) 15A

Max. Demand: 35A

Voltage Drop:

Question 12: Consumers mains VD: 1.47V
Sub-mains VD: 5.84V
Final sub-circuit VD: 3.23V

Total VD: 10.54V

Overload and short circuit calculations.

Question 13 Ratio 6:1
Minimum time 0.75 seconds
Maximum time 3.2 seconds

Question 14 (i) 11252.45A
(ii) 5061.62A

Residual Current Devices

Question 15 30A

Motors And Starters

Question 16 B

Code Of Practice

Question 17 (i) Live
(i)13.3

Installation Defects – Non Domestic

Question 18

- (i) The earth electrode shall be driven a depth no less than 1.2m. 5.3.6.3(a)
- (ii) The main switch for the fire pump must not be controlled by any other main switch. 7.2.4.1(b)
- (iii) The fire pump main switch must be labelled 'In the event of fire, do not switch off' 7.2.6.2(b)
- (iv) Earth bar must be identified as earth. 2.9.5.3
- (v) Fuses for the fire pump must be rated no less than 125% of the full load current of the pump motor. 7.2.9.2(b)(i)