

SPARKS Magazine – Summer Issue 2019 - Answer Sheet

Page 53 & 54 – Wiring Accessories

1. D
2. C
3. B
4. D
5. A
6. C
7. A
8. D
9. A
10. C
11. B
12. C

Page 54, 55 & 56 – Wiring Containment Accessories

1. BS EN61386 (Reference: IET BS7671 Part 5 Chapter 52 Regulation 521.6 paragraph 2)
2. The conduit system must be completely erected before cables are drawn in. (Reference: IET BS7671 Part 5 Chapter 52 Regulation 522.8.2)
3. a) Galvanised steel conduit terminal box
b) Galvanised steel distance saddle
c) Galvanised steel lock-nut
4. Drainage holes should be drilled into the conduit accessories located at the lowest. Part of the conduit installation. (Reference: IET BS7671 Part 5 Chapter 52 Regulation 522.3.2)
5. A separate protective conductor shall be terminated at each accessory connected to an earthing terminal incorporated in the associated box or other enclosure. (Reference: IET BS7671 Part 5 Chapter 54 Regulation 543.2.7)
6. The wiring system must be supported using suitably spaced steel saddles. (Reference: IET BS7671 Part 5 Chapter 52 Regulation 521.10.202)
7. Galvanised steel coupler / male brass bush / serrated washer

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8. a) Steel conduit requires a 'conduit bending machine' to be used. The conduit 'former' must be suitable for the size of steel conduit to be bent.
b) PVC conduit requires the use of a 'bending spring' that is inserted into the conduit. Bending is then carried out by hand using the knee as a guide.
9. 2 – lengths of 50 x 50 galvanised steel trunking complete with lid
3 - 50 x 50 stop-ends complete with fixing screws
1 –50 x 50 tee complete with fixing screws
3 – earth continuity straps to be located at each branch of the Tee.
10. A suitable size flexible conduit, 2 x conduit adapters, 2 x conduit lock-rings, 2 x conduit couplers (if required at the end of the trunking and motor terminal box)

Page 57 – Home Automation

1. B
2. D
3. A
4. D
5. C
6. D
7. A
8. C

Page 58 – Smart Home Technology

1. True
2. False
3. True
4. True
5. False
6. True
7. True
8. False
9. False
10. True

Page 59 – Wordsearch

A	B	C	O	N	T	A	C	T	O	R	I	O	N	I	Y	F	M	S	H
F	A	E	F	F	H	Y	G	N	I	M	M	C	U	R	R	E	N	T	P
U	E	L	F	R	I	D	S	W	I	T	C	H	N	H	O	R	E	A	L
S	K	L	L	P	X	V	P	K	N	F	C	E	P	O	C	E	X	N	I
E	E	S	O	U	R	C	E	S	O	T	H	M	E	W	K	F	H	D	G
G	L	D	F	U	N	C	T	E	X	C	I	T	E	D	A	I	I	B	H
E	M	O	T	O	R	N	C	L	T	R	N	E	E	R	D	G	B	Y	T
N	N	V	O	K	O	M	M	V	L	I	I	M	F	N	M	H	S	X	I
U	O	I	N	D	T	G	R	L	I	V	E	P	L	U	G	T	T	S	N
R	Q	C	H	C	A	P	A	C	H	I	S	O	C	K	E	T	I	U	G
A	E	L	E	C	T	R	O	D	E	R	H	R	L	L	O	R	O	P	M
L	E	R	A	D	I	O	V	E	R	V	U	A	T	A	G	A	I	P	J
G	D	T	R	A	N	D	L	E	Z	D	T	R	E	V	C	N	A	L	N
R	I	S	O	L	G	T	O	R	X	D	T	Y	L	I	N	S	E	Y	J
E	D	D	U	U	S	C	O	U	U	U	E	B	W	T	L	F	H	I	I
B	A	T	T	E	R	I	E	S	N	E	R	A	C	K	U	O	W	T	O
M	A	A	D	I	S	C	O	U	P	L	E	R	I	O	N	R	S	C	Q
Y	L	O	H	M	I	A	D	A	F	P	D	F	N	L	A	M	P	H	N
A	U	X	I	L	I	A	R	Y	B	E	C	C	H	O	K	E	Y	P	X
P	S	F	T	E	S	V	Y	Q	L	U	M	I	N	A	I	R	E	E	S

Page 60 – Current-using equipment

1. False
2. True
3. False
4. False
5. True
6. False
7. True
8. True
9. False
10. True

Page 61 – Word maze

1	A	T	O	2	M	I	C	3	C
	O	9	W	E	A	10	R	C	P
	L	14	C	O	G	15	S	B	C
8	G	S	E	N	A	11	O	4	S
	N	S	V	16	E	L	H	I	
	I	13	P	O	T	12	S	M	N
7	R	A	T	6	S	V	L	5	E

Page 64 – Spot the Difference

