

SPARKS Magazine – Winter Issue 2020 - Answer Sheet

Page 20-21 – Data cables and the CPR

1. 2017
2. 7%
3. Reaction to fire describes a cable's behaviour during combustion and how it might contribute to developing or spreading a fire. Resistance to fire describes its ability to continue operating as normal during a fire.
4. Yes
5. IEC 60332-1-2:2004
6. B1ca

Page 24 – Spot the difference

SPOT THE DIFFERENCE

TEST YOUR KNOWLEDGE

Spot the six differences between these two photos of a SPARKS Apprentice of the Year competitor hard at work.



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Page 50 – Circuit Protection

- 7. D
- 8. D
- 9. A
- 10. C
- 11. D
- 12. B
- 13. B

Page 51 – Electrical Heating

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

Page 52 – Electrical Ventilation

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

Pages 54-56 – Protection for Safety

SPARKS

1. Electrically live parts
2. 'hazardous – live – parts shall not be accessible and accessible conductive parts shall not be hazardous – live either in use without a fault or in ...fault conditions'
3. Direct contact
4. Indirect contact
5. Insulation, barriers or enclosures
6. The provision of protective earthing
7. A) Automatic disconnection of the supply
B) Double or reinforced insulation
C) Use of extra-low voltage
8. 50V a.c./electric shock
9. A) Basic protection is provided by basic insulation of live parts or by barriers or enclosures.

B) Fault protection is provided by protective earthing, protective equipotential bonding and automatic disconnection of the supply in the event of a fault.
10. A residual current device
11. exposed – conductive – parts

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