Practical Maths for Electrical Installation Students & Apprentices

Full 10 Unit Course Assessment Pack - Answers

Lecturer copy. This document contains answers only, matched to the separate questions document.

Award the listed marks for correct final answers. Where a question is worth 2 marks, centres may award 1 method mark for correct working and 1 final answer mark.

Unit 1: Basic Operations

Q	Answer	Marks	Marks Awarded
1	700 W	1	
2	2,500 W	1	
3	25 m	1	
4	60	1	
5	12	1	
6	45 m	1	
7	2,300 W	2	
8	180 W	1	
9	154 clips	1	
10	13.75 hours	1	
		Total	

Unit 2: Fractions

Q	Answer	Marks	Marks Awarded
1	3/4	1	
2	5/8	1	
3	3/4	1	
4	4 m	2	
5	15 m	2	
6	0.5	1	
7	6	1	
8	3/8	1	
9	5/6	2	
10	1 whole	1	
		Total	

Unit 3: Decimals

Q	Answer	Marks	Marks Awarded
1	1.00	1	
2	3.25	1	
3	10	1	
4	3.3	1	
5	4.57	1	
6	21.25 m	1	
7	230 V	1	
8	1/2	1	
9	5 hours	1	
10	1.75 kg	1	
		Total	

Unit 4: Percentages

Q	Answer	Marks	Marks Awarded
1	20	1	
2	20 W	1	
3	115	1	
4	40	1	
5	550 W	2	
6	GBP 90	2	
7	90%	2	
8	25%	2	
9	15	1	
10	540 W	2	
		Total	

Unit 5: Ratios

Q	Answer	Marks	Marks Awarded
1	1:2	1	
2	2:3	1	
3	10 and 20	2	
4	30 and 10	2	
5	20 parts	2	
6	GBP 40 and GBP 20	2	
7	80 m and 20 m	2	
8	3:1	1	
9	100 m	2	
10	5 and 15	2	
		Total	

Unit 6: Powers and Indices

Q	Answer	Marks	Marks Awarded
1	8	1	
2	25	1	
3	1,000	1	
4	16	1	
5	16	1	
6	36 A^2	1	
7	80 W	2	
8	27	1	
9	9	1	
10	2 ohms	2	
		Total	

Unit 7: SI Units

Q	Answer	Marks	Marks Awarded
1	1,000 W	1	
2	2,500 W	1	
3	5 A	1	
4	750 V	1	
5	2.5 m	1	
6	2 kW	1	
7	500 g	1	
8	3,000,000 W	1	
9	800 mA	1	
10	12 m	1	
		Total	

Unit 8: Algebra

Q	Answer	Marks	Marks Awarded
1	x = 5	1	
2	x = 7	1	
3	x = 10	1	
4	x = 12	1	
5	x = 3	2	
6	P = 1,150 W	2	
7	I = 4 A	2	
8	x = 9	1	
9	x = 12	1	
10	C = GBP 190	2	
		Total	

Unit 9: Transposition of Formulae

Q	Answer	Marks	Marks Awarded
1	I = V/R	1	
2	R = V/I	1	
3	I = P/V	1	
4	V = P/I	1	
5	R = P/I^2	2	
6	t = d/v	1	
7	I = Q/t	1	
8	w = A/l	1	
9	x = (y - c)/m	2	
10	I = sqrt(P/R)	2	
		Total	

Unit 10: Trigonometry and Pythagoras

Q	Answer	Marks	Marks Awarded
1	5 m	2	
2	10 m	2	
3	12 m	2	
4	0.5	1	
5	0.5	1	
6	1	1	
7	53 deg	2	
8	22 deg	2	
9	5 m	2	
10	15 m	2	
		Total	

Final Mixed Assessment - All Units

Q	Answer	Marks	Marks Awarded
1	2,500 W	1	
2	30 m	1	
3	120	1	
4	3/4	1	
5	18 m	2	
6	2.00	1	
7	12.68	1	
8	30	1	
9	253	1	
10	84%	2	
11	2:3	1	
12	24 and 36	2	
13	27	1	
14	100 W	2	
15	1,500 W	1	
16	2.5 A	1	
17	x = 7	1	
18	x = 6	2	
19	1,840 W	2	
20	I = V/R	1	

Q	Answer	Marks	Marks Awarded
21	V = P/I	1	
22	R = P/I^2	2	
23	15 m	2	
24	1	1	
25	53 deg	2	
		Total	