Measurement: Units & Conversion: Hard Practice Paper 6 Answers

Q#	Answer	Explanation
1	B	The four crates weigh 850 × 4 = 3400 kilograms altogether. There are 1,000 kg in a tonne, so that is 3400 ÷ 1000 = 3.4 tonnes.
2	B	Each minute the tap delivers 240 ÷ 16 = 15 litres. A minute holds 60 seconds, so in one second it delivers 15 ÷ 60 = 0.25 litres.
3	B	Change the time into hours, since 45 minutes is three quarters of an hour, making 1.75 hours. Then divide the distance by the time: 42 ÷ 1.75 = 24 km/h.
4	B	Two litres is 2,000 ml. Sixteen doses use 120 × 16 = 1920 millilitres, and a seventeenth would need 2,040 ml, which is too much. What is left is 2000 − 1920 = 80 millilitres.
5	C	The floor area is 4.5 × 3.2 = 14.4 square metres. At £18 for each square metre the cost is 14.4 × 18 = 259.2, which is £259.20.
6	D	One bun needs 450 ÷ 12 = 37.5 grams of flour. Thirty buns therefore need 37.5 × 30 = 1125 grams, which is 1.125 kg.
7	C	The gaps between the posts number 45 ÷ 2.5 = 18. A straight line of posts always has one more post than the number of gaps, because of the extra post at the far end, so there are 18 + 1 = 19 posts.
8	C	Share the cost over the mass: 28 ÷ 3.5 = 8, so the cheese costs £8 for each kilogram.
9	C	Every cubic metre holds 1,000 litres, so multiply: 36 × 1000 = 36,000 litres.
10	C	One hectare is 10,000 square metres, so 0.8 of a hectare is 10000 × 0.8 = 8,000 square metres.
11	E	Two and a half hours is 2.5 hours. Multiplying the speed by the time gives 96 × 2.5 = 240 kilometres.

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12	C	Adding 6 hours to 23:38 gives 05:38 the next morning. Adding 22 more minutes reaches 06:00, and the remaining 47 − 22 = 25 minutes take it to 06:25.
13	B	Here the conversion runs the other way, so divide rather than multiply: 11 ÷ 2.2 = 5 kilograms.
14	B	The roll is 1,540 cm long. Sixty-one pieces use 25 × 61 = 1525 centimetres, and a sixty-second would need 1,550 cm, which is more than there is. What is left is 1540 − 1525 = 15 centimetres.
15	A	Work out what each tap does in one minute. Tap A gives 5 ÷ 2 = 2.5 litres and tap B gives 12 ÷ 5 = 2.4 litres. Tap A is faster, by 2.5 − 2.4 = 0.1 litres every minute.

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