Topic Test 1 Mark Scheme
Collecting and representing data - Higher

Q	Answer	Mark	Comments
1	5 + 6 + 4 + 3 + 1 + 1 or 20	M1	Allow one error or omission
	(5 × 0 +) 6 × 1 + 4 × 2 + 3 × 3 + 1 × 4 + 1 × 5 or (0 +) 6 + 8 + 9 + 4 + 5 or 32	M1	Allow one error or omission
	(40 – their 32) ÷ (24 – their 20)	M1	
	2	A1	

2(a)	Primary and Continuous	B2	B1 one correct (and one incorrect)
2(b)	Points should be plotted at midpoints of classes	B1	oe Points shouldn't be at upper class boundaries
	Third point is wrong height	B1	oe Point should be at 44, not 48

Q	Answer	Mark	Comments
3(a)	300, 425, 500	B1	
3(b)	Plotted at UCBs (± ½ sq) 10, 40, 60, 80, 100	B1	
	Heights correct (± ½ sq) at 0, 60, 300, 425, 500	B1ft	ft their values from table Must be an increasing function and not a straight line
	Smooth curve or polygon through all their points	B1ft	ft their 5 plots Must be an increasing function and not a straight line
3(c)	36 or 37 or 38	B1ft	ft reading across and down from 50 on the vertical scale of their graph

Q	Answer	Mark	Comments
4	D = 60° or $\frac{1}{6}$ or 1° = 20 or 10° = 200 or B = 600 or C = 1800 or A = 3600	B1	Allow ± 1° This mark may not be seen but may be implied by other work
	360 ÷ their 60 × 1200 or 6 × 1200 or 1800 × 4 or 600 + 1800 + 3600 (+ 1200) or (600 + 1800 + 1200) × 2	M1	oe
	7200	A1	Accept integer in range [7322, 8471] if their angle is ± 1°

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Q	Answer	Mark	Comments
5	Correct vertical scale or key shown or 120 or 100 in correct position in table	M1	1 large square = 20 hamsters oe or 5 small squares = 4 hamsters oe or scale of 2 per cm
	120 and 100 in correct positions in table	A1	
	Either bar correct area in histogram (120 – 140 bar 4.5 large squares high or 140 – 180 bar 1 large square high)	M1	
	Table correct, histogram correct **and** correct vertical scale or key shown	A1	One graduation is sufficient for scale One bar labelled with correct frequency is sufficient for key