

(Units in brackets are optional)

Q.no.	Marks	For	Responses
<b>Part A</b>			
1a	1 mark	1	$\frac{1}{4}$ OR $\frac{7}{26}$ OR $\frac{1}{3}$ OR $\frac{3}{10}$ OR $\frac{27}{100}$
1b	2 marks	2	<b>2 563 668 (new cars) Accept 2 563 667</b> <b>OR 2563670 (new cars)</b>
		1	For 2 563 667.992 (new cars) seen rounded or unrounded <b>OR complete correct method with one calculation error</b>
1c	3 marks	3	<b>(£)774.78 OR (£)773.43</b> <b>Accept (£)770 OR (£)773 OR (£)774 OR (£)775 OR (£)780</b>
		2	For 1 062.801932 (litres) OR 1 060.948978 (litres) seen rounded or unrounded for fuel consumed <b>OR complete correct method with one calculation error</b>
		1	For 9 166.666667 (miles) OR 9 150.684932 (miles) seen rounded or unrounded for mileage covered <b>OR 1 062.801932 (litres) OR 1 060.948978 (litres) seen rounded or unrounded for fuel consumed</b> <b>OR 1 159.42029 (litres) seen rounded or unrounded for annual fuel used</b> <b>OR (£)845.2173913 seen rounded or unrounded for annual free fuel value</b>
2a	3 marks	3	<b>22 minutes 14 seconds OR 22.24 minutes Accept 1 334 seconds</b>
		2	For 1 334.125714 (seconds) seen rounded or unrounded for time saved <b>OR 22.23542857 (minutes) seen rounded or unrounded for time saved</b> <b>OR 1 497.965714 (seconds) seen rounded or unrounded for time to download using dial-up connection</b> <b>OR 163.84 (seconds) seen rounded or unrounded for time to download using Broadband connection</b> <b>OR complete correct method with one calculation error</b>
		1	For $10 \times 1\,024 \times 1\,024 \times 8$ OR 83 886 080 (bits) seen OR equivalent
2b	1 mark	1	<b>A comment based on relevant estimation</b> <b>Possible follow through from part a</b>
2c	1 mark	1	<b>3.82(%) OR 3.8(%) OR 4(%)</b>

3a	2 marks	2	<b>(£)336 Accept (£)335.87</b>
		1	For $\frac{140 \times 10^9}{118.3 \times 10^6}$ OR (£)1 183.431953 seen rounded or unrounded for 1998 OR $\frac{244 \times 10^9}{160.6 \times 10^6}$ OR (£)1 519.302615 seen rounded or unrounded for 2003 OR complete correct method with one calculation error
3b	2 marks	2	<b>A correct comment on the average amount <u>per transaction</u> spent on credit cards compared to the average amount <u>per transaction</u> spent on debit cards e.g. 'more spent per credit card transaction'</b>
		1	For a correct comment about the first pie chart e.g. 'there are fewer transactions on credit cards than debit cards' <b>AND</b> a correct comment on the second pie chart e.g. 'total spending on debit cards is greater than total spending on credit cards'
3c	1 mark	1	<b>(£)39 020 Accept (£)39 020.41 OR (£)39 000</b>
3d	1 mark	1	<b>5.02(%) OR 5(%) OR 5.0(%)</b>
3e	2 marks	2	<b>Correct calculations to show that the debt exceeds (£ trillion)1.5 in 3 years. Follow through from part d</b>
		1	For (£ trillion)1.162950352 OR (£ trillion)1.162919773 OR (£ trillion)1.1622555 seen rounded or unrounded for end July 2005 OR complete correct method with one calculation error
3f	1 mark	1	<b>Correct assumption e.g. 'that debt continues to increase at same rate as in the period from the beginning of April 2004 to the end of July 2004'</b>
4a	2 marks	2	<b>4.7(m) Accept 4.66(m)</b>
		1	For 4.658742812 (m) seen rounded or unrounded OR correct substitution using sine 75°
4b	1 mark	1	<b>1.205771366(m) seen rounded or unrounded for distance away from wall in the H&amp;SE recommendation</b> Possible follow through from part a
	1 mark	1	<b>Suitable comment based on their distances e.g. 'The distance from the wall in the H&amp;S leaflet is less than the H&amp;SE recommendation'</b>
4c	2 marks	2	<b>(£)9.47</b>
		1	For (£) 9.46 <del>9</del> <sup>8</sup> seen rounded or unrounded OR 950.4 (hours) seen for time worked per year OR (£) 187.50 earned per week OR complete correct method with one calculation error

<b>5a</b>	<b>1 mark</b>	<b>1</b>	<b>510</b>
<b>5b</b>	<b>3 marks</b>	<b>3</b>	<b>15 904(m<sup>2</sup>) OR 15 906(m<sup>2</sup>) OR 15 911(m<sup>2</sup>) OR 15 896(m<sup>2</sup>)</b>
		<b>2</b>	For 270(m) seen for the length of the ellipse AND 75(m) seen for the width of the ellipse OR correct answer not rounded to nearest square metre OR complete correct method with one calculation error
		<b>1</b>	For 270(m) seen for the length of the ellipse OR 75(m) seen for the width of the ellipse OR 270 000(mm) AND 75 000(mm) seen for dimensions of ellipse
<b>5c</b>	<b>2 marks</b>	<b>2</b>	For 2 921.348315 (£ per m <sup>2</sup> ) rounded, unrounded or truncated seen for the UK library AND 1 434.58898 (£ per m <sup>2</sup> ) rounded, unrounded or truncated seen for the Hong Kong library
		<b>1</b>	For 2 921.348315 (£ per m <sup>2</sup> ) seen for the UK library rounded, unrounded or truncated OR 1 434.58898 (£ per m <sup>2</sup> ) seen for the Hong Kong library rounded, unrounded or truncated
	<b>1 mark</b>	<b>1</b>	<b>2 : 1</b>

Part B			
6a	1 mark	1	Title and axis labels correct: horizontal axis for attendance; vertical axis label consistent with candidate's answer i.e. frequency density or frequency
	1 mark	1	Acceptable continuous linear scales e.g. 2cm per million attendances on horizontal axis and 1cm per unit on the vertical axis
	2 marks	2	Correct frequency densities (e.g. 16, 6, 4, 1, 0 and 0.4) used as height for all bars correctly positioned on horizontal axis. No intervals between bars
1		Correct frequency densities used as heights for 4 or 5 bars regardless of position on horizontal axis, or frequency used correctly for all bars correctly positioned on horizontal axis. No intervals between bars.	
6b	1 mark	1	Any sensible correct comment about distribution e.g. 'More of the theme parks have attendances at the lower end of the distribution than at the upper end of the distribution'
6c	3 marks	3	2.57 million or 2.6 million
		2	For $\Sigma fx = 74.5$ (million) or complete correct method with one calculation error
		1	For at least 5 $fx$ 's correct [from 24, 15, 14, 4.5, 0 and 17 (million)] OR correct calculation using incorrect but consistent midpoints.
6d	1 mark	1	(Class) 1 = $A < 2$
6e	1 mark	1	Acceptable comment e.g. 'The estimate of mean attendance is lowered, but there is no effect on the value for the median attendance'.
6f	1 mark	1	(Class) 1 = $A < 2$
6g	2 marks	2	Choice of average with a relevant reason.
		1	For choice of average without a relevant reason.
6h	1 mark	1	$c + a = 24$ and $19c + 26a = 498$ or the equivalent in words or using other variables.
6i	2 marks	2	18 child tickets and 6 adult tickets
		1	For 18 child tickets or 6 adult tickets
6j	1 mark	1	Correct substitution in the 'other' equation seen

Part A	33
Part B	17
Total	50