

## ANNEX B

### RI H1 Maths JC2 Prelim P1

Qn/No	Topic Set	Answers
1	Inequalities	$x < -\frac{1}{2}$ or $x > 2$ ; $\theta > \ln 2$
2	Logarithmic Functions	4; 81
3	Differentiation/Integration	(a) $-7e^{1-7x}$ (b) $\frac{16}{27}$
4	Application of Differentiation	(i) $\frac{7 - (\pi + 2)x}{2}$ $\frac{49}{2\pi + 8}$
5	Graphs	(i) $a = 4$ ; $b = 18$ ; $c = 9$ (ii) $k < -2$ or $k > 4$ (iii) $-3 < x < 3$
6	Probability	(i) $\frac{3}{4}, \frac{1}{4}$ (iii) $\frac{1}{2}$
7	Sampling	(i) Quota sampling (iv) $r = -0.5$
8	Probability	$\frac{1}{12}$ (i) $\frac{2}{3}$ (ii) $\frac{3}{8}$
9	Correlation and Regression	(ii) $r = 0.837$ (iii) $a = 9.423$ , $b = 0.694$ (iv) $y = 50.4$ (v) $x = 27.5$
10	Normal Distribution	(i) 0.857 (ii) 0.620 (iv) 0.1634 (v) $1 - 2p$
11	Hypothesis Testing	(i) $\frac{36}{23}$ (ii) p-value = 0.00940 (iv) 0.6 %.
12	Binomial Distribution	(i) 26 (ii) 0.861

		(iii)0.1227 (iv)0.105 (v) 0.273
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