

ANSWERS TO SEMESTER ONE EXAMINATION DECEMBER 2005 (JUNE 2005 INTAKE)

1	PROVE
2	PROVE
3	PROVE
4	8 ; 32 ; 4
5	$x - 2y + 2z + 21 = 0$; (i) L and M are in π_1 ; (ii) $11x - 22y + 34z = -228$; (iii) $\begin{pmatrix} -43 \\ 2 \\ 0 \\ 1 \\ 4 \end{pmatrix} + t \begin{pmatrix} 2 \\ 1 \\ 0 \end{pmatrix}$
6	<p>Asymptotes : $y = 2x + 5$ and $x = 1$</p> <p>Minimum Point $(1 + \sqrt{3}, 7 + 4\sqrt{3})$; Maximum Point $(1 - \sqrt{3}, 7 - 4\sqrt{3})$;</p> <p>The curve crosses the axes at points : $(0, -1), (-1, 0), \left(\frac{-1}{2}, 0\right)$</p> 