Maximum Marks: 10  Section: 08  Time Allowed: 15 minutes

(1) Find the symmetric equations for the line of intersection of the planes $x + y - z = 2$ and $3x - 4y + 5z = 6$.

(2) Identify the following quadratic surfaces by reducing to standard form

(a) $x^2 - y^2 + z^2 - 4x - 2y - 2z + 4 = 0$.  
(b) $4x^2 + y^2 + 4z^2 - 4y - 24z + 36$.  