(21) $4x^2 - 4y^2 - z^2 = 4$

$4x^2 = 4 + 4y^2 + z^2$

$x^2 = 1 + y^2 + \frac{z^2}{4}$

Since part of hyperboloid is in front of yz plane $\Rightarrow$ $\boxed{x = \sqrt{1 + y^2 + \frac{z^2}{4}} \quad y = y \quad z = z}$

(25) $x^2 + y^2 + z^2 = 36 \quad z = 0 \quad z = 3\sqrt{3}$

Through spherical coordinates $x = p\sin\phi\cos\theta$ $y = p\sin\phi\sin\theta$ $z = p\cos\phi$

$p^2 = 36 \quad p = 6$ $\boxed{x = 6\sin\phi\cos\theta \quad y = 6\sin\phi\sin\theta \quad z = 6\cos\phi}$

$6\cos\phi = 0$ $\quad 6\cos\phi = 3\sqrt{3}$

$\cos\phi = 0$ $\quad \cos\phi = \frac{\sqrt{3}}{2}$

$\phi = \frac{\pi}{2}$ $\quad \phi = \frac{\pi}{6}$

$\boxed{\phi \in [\frac{\pi}{6}, \frac{\pi}{2}] \quad \theta \in [0, 2\pi]}$

(33) $x = u + v \quad y = 3u^2 \quad z = u - v \quad (2, 3, 0)$ $\quad u = 1\ v = 1$ $\quad r(u,v) = \langle u+v, 3u^2, u-v \rangle$

$r_u = \langle 1, 6u, 1 \rangle \quad r_v = \langle 1, 0, -1 \rangle \quad r_u \times r_v = \begin{vmatrix} i & j & k \\ 1 & 6u & 1 \\ 1 & 0 & -1 \end{vmatrix} = \langle \begin{vmatrix} 6u & 1 \\ 0 & -1 \end{vmatrix}, -\begin{vmatrix} 1 & 1 \\ 1 & -1 \end{vmatrix}, \begin{vmatrix} 1 & 6u \\ 1 & 0 \end{vmatrix} \rangle$

$= \langle -6u, 2, -6u \rangle$

Since $u = 1$ normal vector is $\langle -6, 2, -6 \rangle$

equation of plane:

$(x-2)(-6) + (y-3)(2) + (z)(-6) = 0$

$-6x + 12 + 2y - 6 - 6z = 0 \Rightarrow \boxed{3x - y + 3z = 3}$

$= 3x - 6 - y + 3 + 3z = 0$