$$|t\rangle = \frac{1}{\sqrt{2}}(|z,+\rangle|z,-\rangle + |z,-\rangle|z,+\rangle)$$

$$\theta_{\overline{2*a)Writingitinthe}}\pm\rangle$$

$$|t\rangle_n = \frac{1}{\sqrt{2}}\left([\cos(0)-\sin(0)]\,[\sin(0)+\cos(0)] + [\sin(0)+\cos(0)]\,[\cos(0)-\sin(0)]\right) = \left[\cos^2(0)-\sin^2(0)\right]\left[-\sin^2(0)+\cos^2(0)\right] +$$