Name: Mal Farzal Kanin Roll No: 2022/2/004 Q 1.1) DH table of the nanipulator > Just and o 10 11 0 - 1 01 0 19 -19 02 -1 4 0 03 Q 2.1) For the given bysten, x = - 12 sin0 + 13 cos02 cos01+ ly ca (01+ 03) cos 01 1 2 12 cas 0 + 12 cas 02 smo, + 24 ca (02+03) smo. 202 dot de sinos + dy sinos Letipa out roof Leading wheredow allow 4-00 12 of the company to leave (areas) having all of the ar = 120002 + hu cox (0200) -- p2+912 = (0) 13(7) to 2 + D13 ly cos cos neat 3 7(2-4) 2= 12 x2 +y2 = + 2 + 0 2 0 -~2+1 - 12+ (1-2)2 = 12+ 14+ 213 ly co 03 2) 03 = 057 | x2+y2+2+12-12-13-42-21= Substituting (1) in 2,5 - 2/8 lip 2 = 1, + 12 em 02 + ety sin (00 th 05) we consider, × 4 l2 sine1 = y-12 con 01 X81ma1+ 1 3ma1 = 200001 - 1 000,001

5) $\times 9in0$, -9cos0, +2 = 01) $(\times 9in0)$, -9cos0, +2 = 0Let a = -1, +2, +2 a = xcos0, b = xsin0, $c = \sqrt{a^2 eb^2}$ Land: $\frac{b}{a} = 5 \times = ton^{-1} \left(\frac{b}{a}\right)$ $(\times cas(0) \times = -c)$ $\sqrt{a^2 + b^2}$ $(\times cas(0) \times = -c)$ $\sqrt{a^2 + b^2}$ $(\times cas(0) \times = -c)$ $(\times cas(0) \times = -c)$