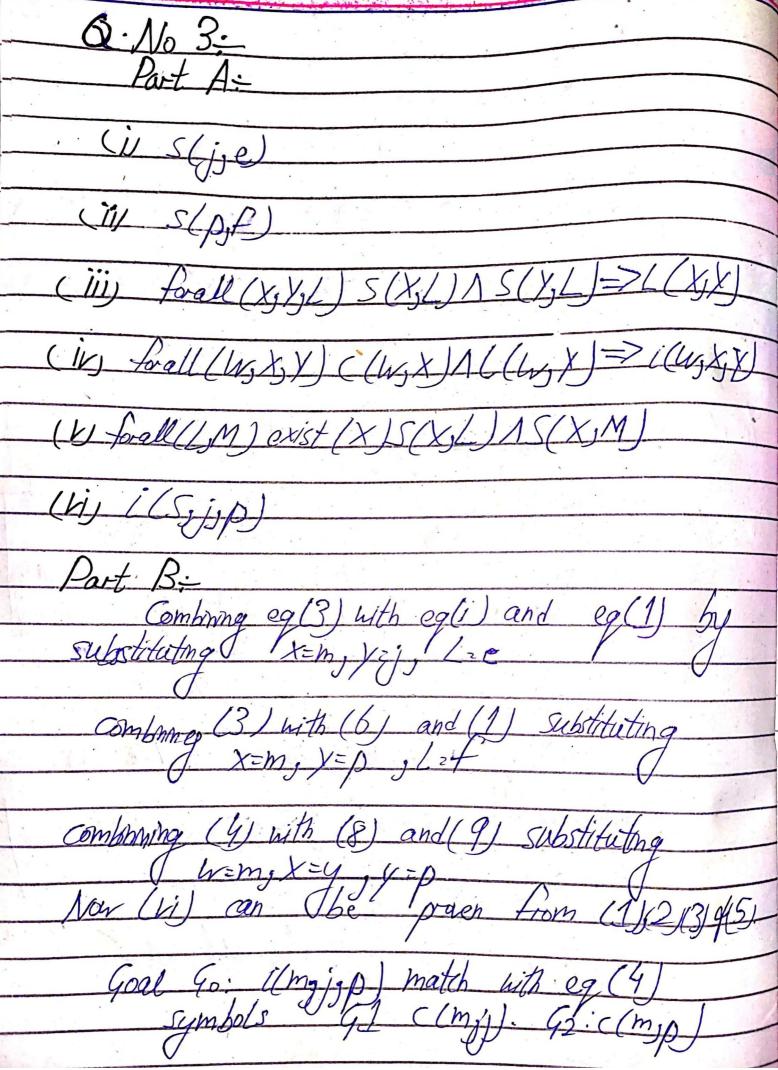
: Abolul Salon Wasti : M. Terher Raja, 18F-0326 18F-0137 Q NO 1: i) Wasa (Occupation (Jamal, Surgeon) V Occupation (Jamal, layer) 9i) Occupation (Hassom, actor) 1 [Occupation (Hassom, Surgeon) V Occupation (Hassem, Doctor) V occupation (Hassem, lawyer)] ni) $\forall x \left[Occupation(x, Surgeon) => Occupation(x, Doctor) \right]$ (iv) $\forall x \left[\underbrace{\text{Customer Occupation (2) lawyer}} \Rightarrow \text{Customer (Hossen, x)} \right]$ V) In Boss (x, Jamed) 1 Occupation (n, lawyer) Vi) $\exists \chi \left[\text{Occupation}(\chi, \text{lawyer}) \Lambda(\forall y (\text{customor}(y, \chi)) \right]$ $\Longrightarrow \text{Occupation}(y, \text{doctors}))$

1002 ° i) D(a,x) and q(Y,b) Sof Yes possible. 0 & X/6, Y/a } P(X,X) and Y(U,V) Jes Possible. 9 (U/x, V/x) $\gamma(a,b,x)$ and $p(\gamma,Z,\gamma)$ gol Mes, Possible 0 (Y/x, x/a, Z/b) iv) P(c, Y, d, Y and P(U, U, V, V)
sol: No, unification is impossible V) P(g(a,x)) and P(g(U,b))30 yes, possible 0 { X/b, U/a}

vi) P(f(a,b), f(x,y)) and P(U,U) Sol: yes, Possible. 0 { x/a, y/b, U/f(o,b)} V(i) P(y,f(a,y)) and P(g(c,d), U)Jes, Possible. D { //g(c,d), U/f(a,g(c,d))} (Viii) P(g(x,y), h(z,z)) and P(U,h(u,a))Sol Not possible $(ix) P(g(X,Y), g(Y,Z)) \sim P(U,U)$ 36l 1907 yes, Possible. $0 = \{ U/g(x, Y), X/Y, Y/Z \}$



Goal Gi: ((mgj) match with eq (
symbols G3:5 (myL2). Gy: K(Goal G2: C(m,p) match eq (3)
Symbols G5: 65 (m, L3) 1: G2 (5 (p, 13) Goal G5: 5 (mg Lz) match eq (5 G5 Succeed Subgoal G6: 5 (pg C) No match Fetwork to G5 Gs: 5(m, Lz) match with mach eq (2 40 Succeed

