## Name: Rudoamuni 6.m USN:18m18C5085 Bafna Gold AI-ASSIGNMENT-OI FOL into CNF 1) + x [ = ZAnimal(z) ∧ KIIIS(x,z)] =>[+y7loves(xx)] (i) Eliminate implication: - (A=) B = TAVB YX[7] ZAnimal(z) NKills (x,z) V Yy 7 Loves(y,x) (ii) Move 7 Invawas: 77 DCP2 +2 7P +x[+z7 (Animal(z) 1 Kills (a,z))]V ty 7LOVES(d,x) +x[+z7(Animal(2))V 7KillS(x,z)]V +y TLOVES(y,x) (iii) Deep Universal Quantitiers: -Animal (z) V 7 Kills(x,z) V 7 loves (y,x) (IV) CNF -TAnimal (2) VTKIII S(V, 2) V TLOVES(Y, X) convert the Benkices into Fol & prove using resolution. (2) i) cold and proecipitation -> snow cold(x) n precipitation(x) => snow(x) 7 cold (x) n poecipitation (x) ) v snow(x) 7 cold (x) V - precipitation (x) V snow(x) (ii) January > cold January (x) => cold - January (x) V cold(x) (iii) Cloud 5 > Poccipitation clouds (Oc) > Poccipitation (Oc) - (olouds (a) v poecipitation (iv) Torway(x) (v) clouds (x) (OT) (Rudoq)

Name. Rudocmuni 6.m USN: 113m18 E5085 TO POLOVE: Snow CX) -> Resolution Of (i) & (ii) vi) > poecipitedion(a) v Snow(a) v > Johnous(a) -> Resolution of (vi) 4 (iv) vii) & - Precipitation (sc) v snow (sc) -> Resolution of (vii) (Ciii) viii) Snow(x) v - Moveds(x) >> Resolution of (viii) of (v) snow (x) Hence Proved (62) Redon