AI - Assignment

MANU. W.Y 1BM18(5053

) FOL into CNF

YN[]z Animal(z)/Kills(n,z)]=>[Yy - boves(y,n)] -> +x [=] z - f(Animal (z) 1 Kills (x, z))] V [+y - loves (y, x)]

Yx[7] Jz JAnimal (z) V - Kills (x,z)] V[+y-Loves(y, x)

Alexand (2) He kittle (4, Star) 30 Hn[Hz ¬ Animal(z) V ¬ Killy(r,z)] V [Hy¬ Loves(y, N) Yx Yy Yz [- Animal (z) V- killy (x,z)]V[- Loves (y,x]

Yn (- Arimal (G(N)) V - Kills (N,G(N))]V[- Love, (F(X), M) [- Apimal(G(x)) V- Kills(x,G(x))] V [-loves(F(x)), x)]

[- Animal(G(N)) V - Lovey(F(N), N)] V [- Kills(x,g(N) V-

loves (F(x), x)]

a) Convert the sentness into FOL & prove using

sesolution; i) Cold and precipitation -> Snow cold(u) Aprecipitation (u)=> snow(x) - (cold(x) 1 precipitation (x)) V snow (x) - cold(x) v - precipitation(x) vsnow(x)

ii) January -> cold January (x) > cold - January(x) v cold(x)

iii) clouds -> precipitation chouds(n) >) precipitation (n) - clouds (x) V precipitation (x)

in) January (x) ") (louds (x)

To prove: - Snow(x) -> Resolution of i) & ii)

Caraco-

vi) - Precipitation (x) V snow (x) V - January (x) - Resolution of vi) hill vii) - Precipitation (n) Vs now (x) confidence (vii) -> Resolution of viii) & iii) viii) Enow (x) v 7 clouds (x) -> Resolution of Viii) & W Snow (v) Houce proved