Q.1 Day 14

Avg temp = (5.4 + 12.1) / 2 = 8.75

today is rein, temperature is warm, rainfall is high, sky is overcast

$R_1 \Rightarrow O(\text{tomorrow is rein}) = \frac{.5}{1-.5} = 1$

$O(H|E) = 2.5 * 1 = 2.5$

$P(H|E) = \frac{2.5}{1+2.5} = \boxed{.71}$ tommorg rein

$R_2 \Rightarrow O(\text{tomorrow is dry}) = \frac{.5}{1-.5} = 1$

$O(H|E) = .4 * 1 = .4$

$P(H|E) = \frac{.4}{1+.4} = \boxed{.29}$ tommorw dry

$R_3 \Rightarrow$ the evidnce not occure (rainfall is high) en LN is [1]
then it will be not effect on the propability.

$R_4 \Rightarrow$ will not effect same as Rule 3, LN is [1]

$R_5 \Rightarrow O(\text{tomorrow rein}) = \frac{.71}{1-.71} = \boxed{2.95}$

$O(H|E) = 2.95 * .9 = \boxed{2.21}$

$P(H|E) = \frac{2.21}{1+2.21} = \boxed{.69}$ tommorw rein

$R_6 \Rightarrow$ LN is [1] Like R_3, R_4

The likelihood of day being rein because the first one is high.

Q.1)

Day 27

temP = (13.6 + 18.3) /2 = 1.05

today is dry, temp warm, rainfall is low, sky clear.

$R_1 \Rightarrow o(H) = 1$

$o(H|E) = .6 * 1 = .6$

$p(H|E) = \frac{.6}{1+.6} = .37$ tommorw rein

$R_2 \Rightarrow o(\text{tommorw dry}) = \frac{.5}{1-.5} = 1$

$o(\text{tommorw dry} | \text{today dry}) = 1 * 1.6 = 1.6$

$p(\text{tommorw dry} | \text{today dry}) = \frac{1.6}{1+1.6} = .62$

$R_3 \Rightarrow$ evidence not occuring, $LN = 1$ so not effect on propebility

$R_4 \Rightarrow$ same as R_3

$R_5 \Rightarrow o(\text{tommorw rein}) = \frac{.38}{1-.38} = .61$

$o(\text{tommorw rein} | \text{today dry} \wedge \text{temp warm}) = 2 * .61 = 1.22$

$p = \frac{1.22}{1+1.22} = .55$

$R_6 \Rightarrow$ Same as R_4 and R_3 (sky clear and $LN = 1$)

tommorw is dry = .62, tommorw is rein = .55

The liklihoods of day 28 is dry beceuse the first is high.

Q.1

$R_1 \Rightarrow$ Project funding is high $= .1$
or Project staffing is small $= .6$
risk $= \boxed{.6}$

$R_2 \Rightarrow$ Project funding is adequate $= \boxed{.9}$
and Project staffing is large $= \boxed{.2}$
risk $= \boxed{.2}$

$R_3 \Rightarrow$ Project funding is low $\boxed{.1}$
risk $\boxed{.1}$

1) $$COG = \frac{.6*(0+10+20) + .2*(40+50+60) + .1*(70+80+90+100)}{.2*3 + .6*3 + .1*4}$$

$$= \boxed{29.28}$$

2) Sugeno

$$COG = \frac{20*.6 + 50*.2 + .1*70}{.6 + .2 + .1} = \boxed{33.3}$$