Q1

If class is early or schedule is packed and sleep is less, then sleepiness is high

Q2

“If either Andrew or Bob lose and the Carman wins, then David will be disqualified, and I will win"

If either A OR B lose AND C wins, then D disqualified AND I win

a) Truth value = min(1, 1 - min(max(A,B), C) + min(D, I))

b)

A’ = 0.8, B = 0.6, C = 0.7, D = 0.3, Truth = 0.7

which means that 1 - min(max(A,B),C) + min(D,I) = 0.7

min(max(1-A’,B),C) = 0.6

1 - 0.6 + min(0.3,I) = 0.7

min(0.3, I) = 0.7 - 0.4

min(0.3, I) = 0.3

Hence, I >= 0.3

Q3

a) t = min(old(x), tall(x))

b) t = max(more\_or\_less\_old(x), short(x))

c) t = max(old(father(x)), 1 - min(very\_young(x), tall(x)))

d) t = max(tall(x), 1 - not\_very\_old(x))

Q4

A = [.6, 1, .9]

B = [.6, 1]

A\_ = [.6, .9, 1]

Kleene-Dienes = [.6, 1. ]

Reichenbach = [.64 1. ]

Lukasiewicz = [0.7 1. ]