Homework 3 supplement – BN DAG and probabilities

Smoker

s

Positive X-Ray

x

Coughing

co

Lung Cancer

ca

Asthma

a

High Pollution

hp

P(hp) = 0.30

P(s) = 0.20

P(a | hp) = 0.7

P(a | -hp) = 0.2

P(ca | s) = 0.4

P(ca | -s) = 0.1

P(co | a, ca) = 0.9

P(co | -a, ca) = 0.4

P(co | a, -ca) = 0.7

P(co |-a, -ca) = 0.2

P(x | ca) = 0.9

P(x | -ca) = 0.03