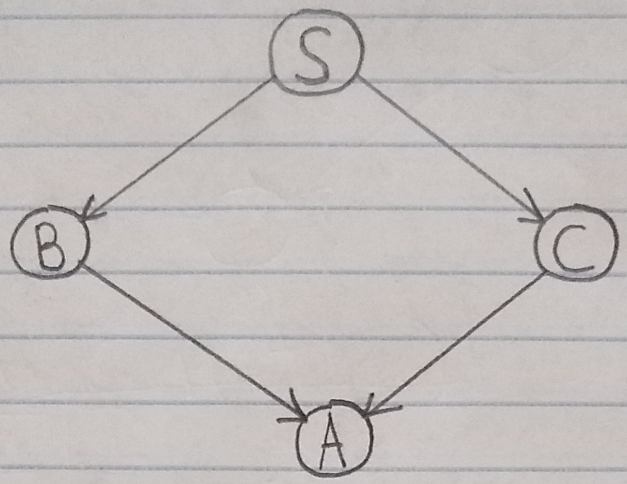
MAE 450 PS 6

1)

P(S=T)
0.308



S	P(B=T|S)
T	0.250
F	0.333

S	P(C=T|S)
T	0.750
F	0.222

B	C	P(A=T|B,C)
T	T	1.000
T	F	0.667
F	T	0.250
F	F	0.200

$P(A|B,C) = 1.000$

$P(A|S)$: $P(B) = (1)(0.25) = 0.25$

$P(C) = (1)(0.75) = 0.75$

$P(B,C) = (0.25)(0.75) = 0.1875$

$P(B,\neg C) = (0.25)(0.25) = 0.0625$

$P(\neg B,C) = (0.75)(0.75) = 0.5625$

$P(\neg B,\neg C) = (0.75)(0.25) = 0.1875$

$$P(A|S) = \frac{0.1875(1) + 0.0625(0.667) + 0.5625(0.25) + 0.1875(0.2)}{1 + 0.667 + 0.25 + 0.2}$$

$\boxed{P(A|S) = 0.192}$