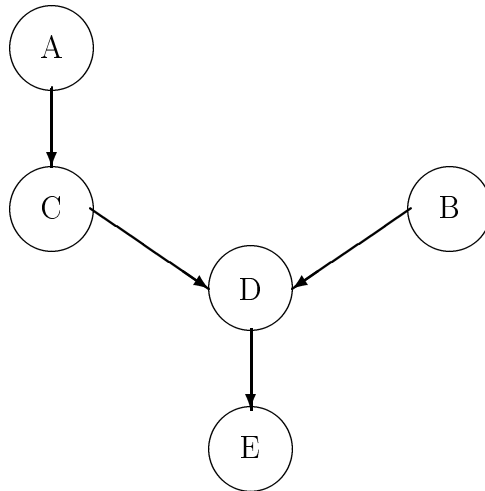


Name: \_\_\_\_\_

**Problem 1 - Reasoning with Uncertainty (30 Points)**

Consider the following belief net.



Assume the prior and conditional probabilities given below:

$$P(A) = 0.75$$

$$P(B) = 0.35$$

A	P(C)
T	0.7
F	0.5

C	B	P(D)
T	T	0.3
T	F	0.8
F	T	0.6
F	F	0.1

D	P(E)
T	0.9
F	0.4

Compute the following probabilities. **SHOW YOUR WORK** and simplify your answers.

1. (6 points)  $P(C|A) =$

2. (6 points)  $P(C) =$

3. (6 points)  $P(A|C) =$

4. (6 points)  $P(D|C) =$

5. (6 points)  $P(E|A \wedge B) =$