A3 COMP 569 Clifton Porter

1) a) A = They find the looters.
B = They don't find them. (A ∨ B)
They will find the looters or they will not find them.

b) A = Siskel is a movie reviewer
B = Ebert is a movie reviewer (A ∧ B)
Siskel is a movie reviewer & Ebert is a movie reviewer

c) A = Popcorn stand is open (A => B)
B = You want popcorn → You can get some popcorn
If the popcorn stand is open, then you can get some if you want

d) A = You touch a painting
B = They kick us out
If you touch another painting, then they will kick us out

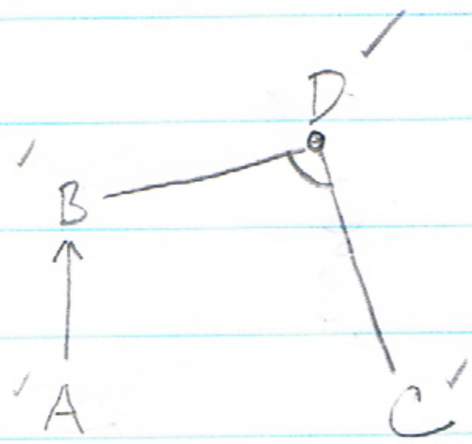
2 A ∧ B |= A <=> B

A	B	A ∧ B	A <=> B
T	T	T	T
T	F	F	F
F	T	F	F
F	F	F	F

✓

3) 1) A → B
2) (B ∧ C) → D
3) ¬B → D
4) C
5) A

A = Downturn C = Resume
B = few jobs D = JD job



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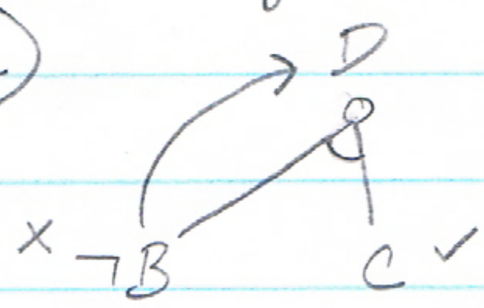
3) c)



d) 1) $\neg A \vee B$

2) $\neg(B \wedge C) \vee D$; $\neg B \vee \neg C \vee D$

3) $B \vee D$

4) C

4) a) $\exists x$ Difficult$(x) \wedge$ AI Topic(x)

b) $\exists x \forall z$ (Course$(x) \wedge$ Named("AI", x)) $\wedge$
(Course$(z) \wedge$ Named("AI", z) $\rightarrow (x = z)$)

c) $\forall x \exists y \exists z$ Student$(x) \wedge$ Enrolled$(x$, "COMP 569")
$\rightarrow$ Exam(y), Exam(z), Take$(x, y) \wedge$ Take$(x, z$

5) In the paper, the section of The Executive Routine (p. 22
seems to be related to our discussion of inference,
where theorems provide grounds for the KB and
add to the possibility of future ones being solved.
The Matching Process draws from forward-chaining
to make a proof tree it seems; the main difference
appears to be that only implication/AND is used.
Subproblems further discusses that the possible building
of the theorem base saves a lot of time w/ solving
most problems. since after many basic steps are
solved, few require many steps beyond it.