PHIL 1 WEEK 9
EXERCISES

1. **ANSWERS in ½ page A4**

a. Summarise and explain the steps involved in building a truth table
b. What are tautological, self-contradictory, and contingent statements
c. Explain the difference between logically equivalent, contradictory, contingent, and non-contingent statements

2. **CLASSIFY THE FOLLOWING STATEMETS:**

2.1. $[G \supset (N \supset \sim G)] \cdot [(N \equiv G) \cdot (N \vee G)]$

$[G$	$\supset$	$(N$	$\supset$	$\sim$	$G)]$	$\cdot$	$[(N$	$\equiv$	$G)$	$\cdot$	$(N$	$\vee$	$G)]$
T	F	T	F	F	T	F	T	T	T	T	T	T	T
T	T	F	T	F	T	F	F	F	T	F	F	T	T
F	T	T	T	T	F	F	T	F	F	F	T	T	F
F	T	F	T	T	F	F	F	T	F	F	F	F	F

self-contradictory

2.2. $[U \cdot (T \vee S)] \equiv [(\sim T \vee \sim U) \cdot (\sim S \vee \sim U)]$

$[U \cdot (T \vee S)]$	$\equiv$	$[(\sim T \vee \sim U) \cdot (\sim S \vee \sim U)]$
T T T T T	F	F T F F T F F T F F T
T T T T F	F	F T F F T F T F T F T
T T F T T	F	T F T F T F F T F F T
T F F F F	F	T F T F T T T F T F T
F F T T T	F	F T T T F T F T T T F
F F T T F	F	F T T T F T T F T T F
F F F T T	F	T F T T F T F T T T F
F F F F F	F	T F T T F T T F T T F

self-contradictory

3. COMPARE THE FOLLOWING STATEMENTS:

3.1a. R v ~S

3.1b. S • ~R

$R \vee \sim S$	$S \cdot \sim R$
T T F T	T F F T
T T T F	F F F T
F F F T	T T T F
F T T F	F F T F

contradictory

3.2a (E > C) > L

3.2b. E > (C > L)

$(E \supset C) \supset L$				
T	T	T	**T**	T
T	T	T	**F**	F
T	F	F	**T**	T
T	F	F	**T**	F
F	T	T	**T**	T
F	T	T	**F**	F
F	T	F	**T**	T
F	T	F	**F**	F

consistent

$E \supset (C \supset L)$				
T	**T**	T	T	T
T	**F**	T	F	F
T	**T**	F	T	T
T	**T**	F	T	F
F	**T**	T	T	T
F	**T**	T	F	F
F	**T**	F	T	T
F	**T**	F	T	F

3.3e $W \equiv (B \cdot T)$

3.3b $W \cdot (T \supset \sim B)$

$W \equiv (B \cdot T)$				
T	**T**	T	T	T
T	**F**	T	F	F
T	**F**	F	F	T
T	**F**	F	F	F
F	**F**	T	T	T
F	**T**	T	F	F
F	**T**	F	F	T
F	**T**	F	F	F

inconsistent

$W \cdot (T \supset \sim B)$					
T	**F**	T	F	F	T
T	**T**	F	T	F	T
T	**T**	T	T	T	F
T	**T**	F	T	T	F
F	**F**	T	F	F	T
F	**F**	F	T	F	T
F	**F**	T	T	T	F
F	**F**	F	T	T	F

3.4e $H \cdot (K \vee J)$

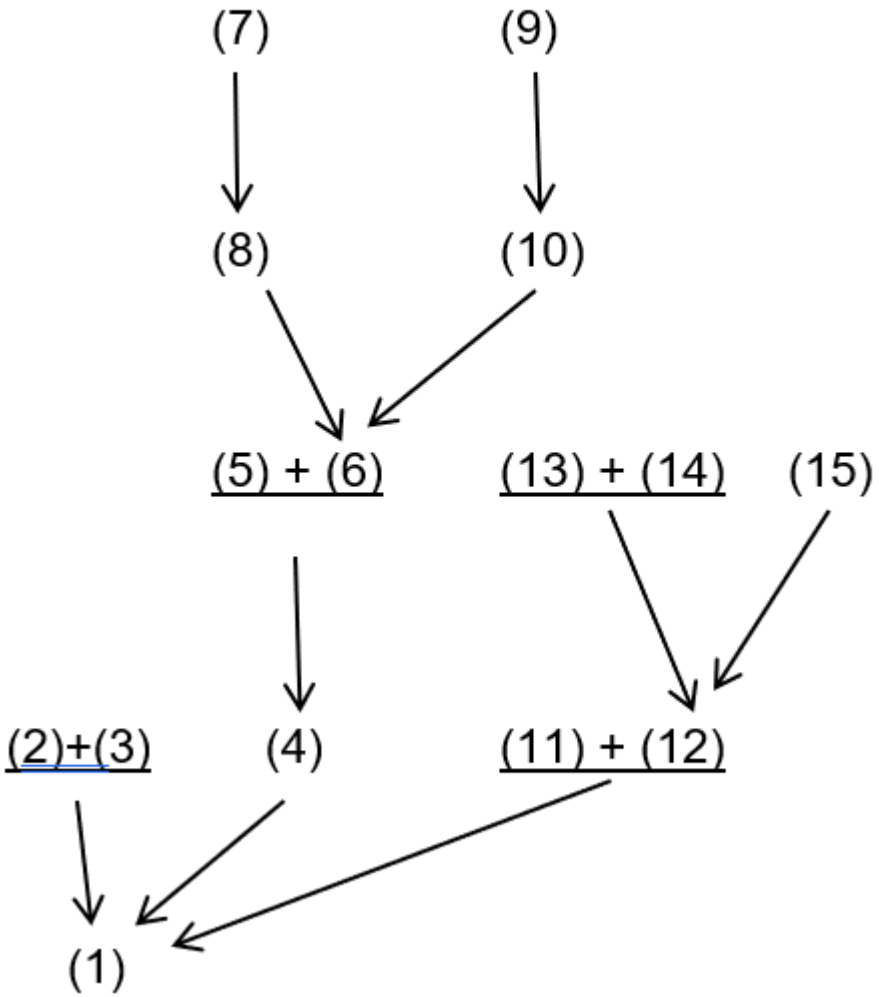
3.4b $(J \cdot H) \vee (H \cdot K)$

$H \cdot (K \vee J)$				$(J \cdot H) \vee (H \cdot K)$						
T	T	T	T T	T	T	T	T	T	T	T
T	T	T	T F	F	F	T	T	T	T	T
T	T	F	T T	T	T	T	T	T	F	F
T	F	F	F F	F	F	T	F	T	F	F
F	F	T	T T	T	F	F	F	F	F	T
F	F	T	T F	F	F	F	F	F	F	T
F	F	F	T T	T	F	F	F	F	F	F
F	F	F	F F	F	F	F	F	F	F	F

logically equivalent

4. DIAGRAM THE FOLLOWING PASSAGE

(1) Trying to promote just narrow religious tolerance alone is a bad idea. (2) Religious tolerance requires only that one does not object too much to the practice of a religion other than one's own. (3) Much better is that one understands it as well. Besides, (4) religious tolerance alone may foster intellectual error. For example (5) some people who are narrowly tolerant to religions may insist that all religions are essentially the same, even doctrinally. (6) That's a mistake. (7) If there is just one god then there can't be many, so (8) Islam and Hinduism can't both be correct. And (9) if Mohammed is the true prophet then Christ isn't the true prophet, so (10) Islam and Christianity can't both be correct. Moreover, (11) Promoting religious tolerance, whether in the narrow sense or in a wider sense, involves not objecting to religion in general. But (12) the practice of *any* religion is objectionable. (13) Religion is anti-scientific and (14) scientific is certainly what we should all be. And (15) we wouldn't have religious wars if religion wasn't practiced.


(7)
(9)
(8)
(10)
(5) + (6)
(13) + (14)
(15)
(2)+(3)
(4)
(11) + (12)
(1)