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PHIL 12

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L03 Homework

Exercise Set #1

A)

1. F

A	B	$\neg B$	$A \wedge \neg B$
T	T	F	F

5. T

A	B	C	$A \vee B$	$(A \vee B) \wedge C$
T	T	T	T	T

7.

A	B	C	$\neg A$	$\neg B$	$A \wedge \neg A$	$\neg B \rightarrow (A \wedge \neg A)$
T	T	T	F	F	F	T

Exercise Set #2

A)

3.

P	Q	$\neg Q$	$P \leftrightarrow Q$	$P \rightarrow \neg Q$	$(P \leftrightarrow Q) \wedge (P \rightarrow \neg Q)$
T	T	F	T	F	F
T	F	T	F	T	F
F	T	F	F	T	F
F	F	T	T	T	T

5.

P	Q	$\neg Q$	$P \leftrightarrow Q$	$P \leftrightarrow \neg Q$	$(P \leftrightarrow Q) \wedge (P \leftrightarrow \neg Q)$
T	T	F	T	F	F
T	F	T	F	T	F
F	T	F	F	T	F
F	F	T	T	F	F

Exercise Set #3

A)

1. Contingency

R	$\neg R$	$R \rightarrow \neg R$
T	F	F
F	T	T

2. Contingency

P	Q	$\neg P$	$\neg Q$	$P \rightarrow Q$	$\neg P \rightarrow \neg Q$	$(P \rightarrow Q) \wedge (\neg P \rightarrow \neg Q)$
T	T	F	F	T	T	T
F	T	T	F	T	F	F
T	F	F	T	F	T	F
F	F	T	T	T	T	T

3. Contradiction

P	Q	$\neg P$	$\neg Q$	$\neg P \wedge \neg Q$	$(\neg P \wedge \neg Q) \wedge P$
T	T	F	F	F	F
F	T	T	F	F	F
T	F	F	T	F	F
F	F	T	T	F	F

4. Contingency

P	M	$\neg M$	$\neg M \vee M$	$\neg(\neg M \vee M)$	$P \vee \neg(\neg M \vee M)$
T	T	F	T	F	T
F	T	F	T	F	F
T	F	T	T	F	T
F	F	T	T	F	F

5. Contingency

R	$R \wedge R$	$(R \wedge R) \wedge R$
T	T	T
F	F	F