**Translations Answers for Ex. IV, Chapter 8**

1. I v D
   D /∴ ~I

The intention of the first premise is inclusive. A person can be both intoxicated and have diabetes.

2. W
   J
   T ⊃ (W • J) /∴ T

Although the conclusion says that they are "conversing" over the phone, this would mean they are talking, not that their phones are merely busy.

3. G ⊃ P
   (G • P) ⊃ U
   U /∴ G

This argument could also be translated with only the first two premises and the conclusion changed to U ⊃ G. But it is better to get into the habit of rendering "because" as a premise indicator, and the phrase "this shows that" as a conclusion indicator.

4. S ⊃ M
   R • (R ⊃ M) /∴ S

The second premise is straightforward but usually difficult for beginning logic students. It says "Jesus definitely rose from the dead." That claim is categorical not hypothetical. Then the next part is saying that his resurrection is a sufficient condition for knowing that he was not just a normal human being.

5. (~I ⊃ ~Y) • (~Y ⊃ ~I)
   (~I • ~Y) ⊃ R /∴ (~I v ~Y) ⊃ R

This argument could also be translated as having three premises. The first premise could be separated into two premises -- ~I ⊃ ~Y and premise 1, and

~Y ⊃ ~I as premise 2. However, "whereas" with a ";" is technically a conjunction. The antecedent of the second premise could also be ~(I v Y), and the antecedent of the conclusion could be ~(I • Y).

7. R v ~R
   R ⊃ (F • S)
   ~R ⊃ ~(F v S) /∴ ~(F • ~S)

The key phrase in this argument is "for the following reasons." This phrase indicates that the first statement is the conclusion and the three sentences after the phrase are the premises. The conclusion is difficult. It is essentially saying that it would not be fair to have the fine justified, but not the suspension. In other words, it is not true that the fine should be imposed but not the suspension.

8. C ⊃ F
   E ⊃ P
   C ⊃ ~E /∴ F ⊃ ~P

9. U ⊃ R
   P ⊃ U /∴ ~(P • ~R)

Notice that the conclusion is the first statement. The key phrase is, "This is so, because. . ." telling us that the first statement is the conclusion and the sentences after "because" are the premises.

10. C ⊃ (S • O)
    D ⊃ ~S
    ~(C • D) /∴ ~O v S

As in #3, the conclusion could be the entire last sentence, and be ~(C • D) ⊃ (~O v S). But again it is best to get into the habit of interpreting "because" as a premise indicator and the phrase "it follows that" as a conclusion indicator.

11. C ⊃ ~L
    P ⊃ ~C
    ~C ⊃ L /∴ (P ⊃ L)• (L ⊃ ~C)

12. B ⊃ T

$T \equiv E$
$(T \supset E) \supset \sim S \qquad /\therefore (B \supset E) \bullet \sim S$