

**PART A) Translate the following arguments.**

1) If I take her pawn with my knight, she'll either take my knight or move her bishop to the space my knight is now guarding. If she takes my knight, I'll lose a valuable piece, but her queen will be exposed. If she moves her bishop to that space, my queen will be exposed anyway. I'm either going to take her pawn or not (p) take it. So either her queen or mine will be exposed.

2) Only if there's a good real estate market can Perez hope to sell her house at a reasonable price. If she gets no suitable deal on the house, Perez will either rent it at some loss or declare personal bankruptcy. Declaring bankruptcy is pretty unacceptable for someone in Perez's position: Perez won't do it (b). The real estate market is terrible. Thus we can infer that Perez will rent her house at some loss.

*Note: #3 is challenging. It's a classic argument (called Pascal's Wager) used to try to prove that it's reasonable to believe in God. This version is a VERY casual restatement of his argument.*

3) If I believe in God, then if God exists, I win (big) and if God does not exist, I don't lose. If I don't believe in God, then if God exists, I lose (big) and if God does not exist, I don't win. Therefore, if I believe in God then either I win big or I don't lose, and if I don't believe in God then I either lose big or I don't win.

4) If the traditional religious view about God is correct, God is both omnipotent and perfectly good. If God is omnipotent, God is capable of preventing suffering, and if God is perfectly good, God would want to prevent suffering. But if God wanted to prevent suffering, and was capable of doing so, then there would be no suffering, and there is. So, the traditional religious view about God is not correct.

5) It's a sure bet that the antacid division of the Hi-5 corporation is going to be sold. Hi-5 stock is going to decline unless the company improves its profits or the economy as a whole improves. The company will not improve its profits unless it sells the antacid division. On the other hand, if Hi-5 stock declines, the company will be taken over and its antacid division will be sold.

6) Gravity is solely an attractive force. If so, then if the universe is not expanding, it is contracting due to gravitational attraction. But if the universe were contracting, the average density of matter in space would be increasing, and it isn't. So, the universe is expanding.

7) If I do these logic deductions, then I won't have time left to read *I Know Why the Caged Bird Sings*. I'll get an A in English only if I read *Caged Bird*, and I'll be miserable unless I get an A in English. But if I don't finish these logic deductions, I'll be too distracted to concentrate on *Caged Bird*, and without concentration on *Caged Bird*, I can't get an A in English. Either I do these deductions or I do not. So I won't get an A in English.

8) Either the Atlanta Falcons will win the title in the Central Divison or Dallas will win the Eastern Divison and the Falcons will be a wild-card team. If the Falcons win a wild-card berth, then either the Chicago Bears will be a wild-card team or the Redskins will. The Redskins will be a wild-card team only if Dallas loses the next game. But Dallas will win (~L) both the next game and the Eastern Division title. Therefore, the Falcons will be a wild-card team, and the Redskins will not go to the playoffs this year.

**PART B) Answer the following questions.**

2) Consider this memo from an employer:

Employees must be given the opportunity to give or withhold their consent before the private aspects of their lives are investigated. The firm is justified in inquiring into the employee's life only if the employee has a clear understanding that the inquiry is being made.

The means used to gain this information are also important; extraordinary methods would include hidden microphones, lie detector tests, spies, and personality inventory tests.

- i. If the quotation is correct, then if the employee has a clear understanding that the inquiry is being made, the firm is justified in inquiring into the employee's life. (a) true (b) false
- ii. If the quotation is correct, the firm is justified in inquiring into the employee's life if the employee has a clear understanding that the inquiry is being made. (a) true (b) false
- iii. If the quotation is correct, then if the firm is justified in inquiring into the employee's life, the employee has a clear understanding that the inquiry is being made. (a) true (b) false