Sample Examination Questions and Answers

I. CHAPTER ONE: INTRODUCTION

1. Consider the following argument:

1. All men are authors.

2. Mark Twain is a man.

/ Mark Twain is an author.

a. Are all of the premises true?

b. Is the conclusion true or false?

c. Is the argument deductively valid or deductively invalid?

d. Is the argument sound? Explain, giving the definition of a sound argument.

2. Consider the following argument:

1. If George Bush is a Republican, then he is not a Democrat.

2. George Bush is not a Democrat.

3. George Bush is a Republican.

a. Are all of the premises true?

b. Is the conclusion true or false?

c. Is the argument deductively valid or deductively invalid?

d. Is the argument sound? Explain, giving the definition of a sound argument.

1. Suppose you know of an argument only that it is valid and has a true conclusion. What, if anything, can you tell about its premises? (Defend your answer, including examples.)
2. Suppose you know of an argument only that it is valid and has a false conclusion. What, if anything, can you tell about its premises? (Defend your answer.)
3. Suppose you know that an argument is sound. What can you determine about its conclusion? (Defend your answer.)
4. Suppose you know of an argument only that it has all true premises and a true conclusion. Can you tell from that whether it is valid or invalid? (Defend your answer.)
5. Suppose you know that argument is invalid. Can you tell from that whether its conclusion is true or false? (Defend your answer.)
6. Suppose you know that an argument is valid. Can you tell from that whether its conclusion is true or false? (Defend your answer.)
7. Suppose you know that a set is consistent. Can you tell from that whether every set member is actually true? (Defend your answer.)
8. Suppose you know every member of a set of sentences is false. Can you tell from that whether the set is inconsistent? (Defend your answer.)

I. *Answers*

1. a. No, the first premise is false.

b. True.

c. Valid.

d. No, since a sound argument is an argument that is valid and has all true premises, but this argument has a false premise.

2. a. Yes.

b. True.

c. Invalid, since it is possible that the first two premises are true but the conclusion is false (for example if George Bush were an independent).

d. No, since a sound argument is an argument that is valid and has all true premises, but this argument is invalid.

1. You can’t tell anything about its premises. For instance, the valid argument “If Socrates is a man then Socrates is mortal. Socrates is a man. Therefore, Socrates is mortal”, has a true conclusion and all true premises. But the valid argument “If Koko (the gorilla) is a man, then Koko is mortal. Koko is a man. Therefore, Koko is mortal”, has a true conclusion, and one true and one false premise.
2. At least one of the premises must be false since a valid argument cannot have all true premises and a false conclusion.
3. If an argument is sound, then it is valid and has all true premises. If an argument is valid then it is impossible for it to have all true premises and a false conclusion. Therefore, the conclusion of a sound argument must be true.
4. No, both valid and invalid arguments can have all true premises and a true conclusion. You would need to determine if it is also possible for the argument to have all true premises and a false conclusion.
5. No, the conclusion of an invalid argument could be true or false. We only know that in either case it will be possible for it to have all true premises and a false conclusion.
6. No, the conclusion of an valid argument could be true or false. We only know that in either case it will be impossible for it to have all true premises and a false conclusion.
7. No, a person can have a consistent set of beliefs where one or more are false. If the set is consistent, it only follows that it is possible for every set member to be true.
8. No. You would need to determine whether it is impossible for all members of the set to be true.