

Sample Examination Exercises

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This exam has two parts. The first part consists of 20 true-false exercises, each of which is worth two points. The second part consists of 30 multiple-choice exercises, each of which is worth two points. The exam itself is therefore worth 100 points. You have 75 minutes to complete it, so budget your time accordingly.

Part I: True-false exercises. Please place a “T” (true) or an “F” (false) on each line. If a passage contains more than one statement and any one of them is false, the passage as a whole is false. If a statement is not completely true, it is false (two points each).

___ 1. The order in which the premise(s) and the conclusion appear in a written or spoken passage has no *logical* significance, but it may have a bearing on the *rhetorical* effectiveness of the passage.

___ 2. All deductive arguments, by definition, proceed from the general to the particular.

___ 3. There can be an invalid argument with true premises and a true conclusion.

___ 4. All sound arguments have true conclusions.

___ 5. All sound arguments are valid, but not all valid arguments are sound.

___ 6. A proposition of the form “All S is P” has universal quantity, affirmative quality, and distributes both its subject term and its predicate term.

___ 7. The categorical proposition “Some P is not S” is in standard form.

___ 8. Assume that there are philosophy professors and that all of them are atheists. Then it is *false* that no philosophy professors are atheists; it is *true* that some philosophy professors are atheists; and

it is *false* that some philosophy professors are not atheists. (Hint: Use the traditional square of opposition.)

___ 9. Begin with the proposition “No S is P.” Perform the following operations, *in order*: obversion, contraposition, subalternation, conversion, and obversion. The resulting proposition is “Some nonS is nonP.”

___ 10. Suppose there are no leprechauns. The following inference commits the existential fallacy: No leprechauns are alcoholics; therefore, some nonalcoholics are not nonleprechauns.

Part II: Multiple-choice exercises. Please circle the letter that corresponds to the correct (or in some cases the *best*) answer (two points each).

11. One of the following statements is true; which is it?

- a. Propositions, but not sentences, are in particular languages.
- b. Sentences are either true or false.
- c. Sentences, but not propositions, are in particular languages.
- d. Sentence is to proposition as number is to numeral.

12. Which of the following best states the difference between inductive and deductive reasoning? (Read the choices carefully!)

- a. In inductive reasoning, the conclusion is probably true, given the truth of the premise(s); in deductive reasoning, the conclusion is necessarily true, given the truth of the premise(s).
- b. When a person reasons inductively, he or she claims that the conclusion necessarily follows from the premise(s); when a person reasons deductively, he or she claims that the conclusion probably follows from the premise(s).
- c. In inductive reasoning, the conclusion is necessarily true, given the truth of the premise(s); in deductive reasoning, the conclusion is probably true, given the truth of the premise(s).
- d. When a person reasons inductively, he or she claims that the conclusion probably follows from the premise(s); when a person reasons deductively, he or she claims that the conclusion nec-

essarily follows from the premise(s).

13. Assume that argument X is valid. Which of the following statements is true?

- a. If X's conclusion is true, then all of X's premises are true.
- b. If X's conclusion is false, then at least one of X's premises is false.
- c. If X's conclusion is true, then all of X's premises are false.
- d. If at least one of X's premises is false, then X's conclusion is false.

14. Which of the following is true?

- a. There can be a sound argument with a false conclusion.
- b. There can be a valid argument with a false conclusion.
- c. There can be a sound argument with a false premise.
- d. There can be valid argument with true premises and a false conclusion.

15. Which of the following is *not* a categorical proposition?

- a. Horses are animals.
- b. God is omnipotent, omnibenevolent, and omniscient.
- c. Only nonliars are nonhypocrites.
- d. Some baseball fans are not nonlunatics.

16. Which of the following is *not* true of an O proposition?

- a. It has particular quantity.
- b. It has negative quality.
- c. Its predicate term is distributed.
- d. Its subject term is distributed.

17. Suppose it is *true* that some rock musicians are heterosexuals. What can be inferred?

- a. It is *false* (by subalternation) that all rock musicians are heterosexuals.

- b. It is *true* (by subalternation) that all rock musicians are heterosexuals.
- c. It is *false* (by subcontraries) that some rock musicians are not heterosexuals.
- d. It is *false* (by contradictories) that no rock musicians are heterosexuals.

18. One of the following propositions entails the true proposition “Some nonP is nonS” when these five rules of inference are applied to it (*in order*): contradictories, subalternation, contraposition, obversion, and conversion. Which is it? (*Note*: Start with choice “a,” apply the five rules, and see if you get the true proposition “Some nonP is nonS.” If you do, then “a” is the correct answer. If you do not, move on to choice “b”; and so on.)

- a. The true proposition “Some nonP is S.”
- b. The true proposition “All nonS is P.”
- c. The false proposition “Some nonP is S.”
- d. The false proposition “Some nonS is not nonP.”

19. What problem arises if we assume that I and O propositions have existential import? (Read the choices carefully!)

- a. When the subject class is not empty, both I and O propositions are true, which violates the rule of subcontraries.
- b. When the subject class is empty, both I and O propositions are false; but this means the corresponding A and E propositions are false, which violates the rule of contraries.
- c. When the subject class is empty, both I and O propositions are false, which violates the rule of subcontraries.
- d. When the subject class is not empty, both I and O propositions are true; but this means the corresponding A and E propositions are true, which violates the rule of contraries.

20. Which rules of inference are *invalid* if we know that members of the subject class do not exist (or if we don’t know that they exist)? (Choose the most complete answer.)

- a. Contraries, subcontraries, and subalternation.

- b. All of the rules on the traditional square of opposition.
- c. Conversion by limitation and contraposition by limitation.
- d. Contraries, subcontraries, subalternation, conversion by limitation, and contraposition by limitation.

Answers, Sample Examination Exercises:

- 1. T
- 2. F
- 3. T
- 4. T
- 5. T
- 6. F
- 7. T
- 8. T
- 9. F
- 10. T
- 11. c
- 12. d
- 13. b
- 14. b
- 15. b
- 16. d
- 17. d
- 18. c
- 19. c
- 20. d