

Introduction to Symbolic Logic

Test 4 Study Guide

1. What does PL stand for?
2. Explain why PL unifies categorical logic and Stoic truth-functional logic.
3. Define the following: singular term, general term.
4. Symbolize the following atomic sentences:
 - a. Rafael is ordering pizza.
 - b. Leonardo is the leader.
 - c. Michaelangelo is skilled with nunchucks.
 - d. Donatello likes purple.
5. Symbolize the following general sentences (using obvious candidates for the predicate letters):
 - a. No philosophers are docile.
 - b. Some professors are historians.
 - c. Both philosophers and logicians are charming.
 - d. All philosophy professors are nice and helpful.
 - e. Some teachers with beards have pet lizards.
6. Define the following: monadic predicate, relational predicate.
7. Symbolize the following sentences containing relational predicates:
 - a. Everybody likes Professor Firestone.
 - b. Some people don't like Professor Garcia.
 - c. Professor Leon doesn't know someone.
 - d. Not everyone knows Professor Shadish.
 - e. Professor Garcia doesn't like anyone.
 - f. Professor Firestone trusts himself.
8. Stipulating a restricted domain of only persons, symbolize the following:
 - a. Everyone knows someone.
 - b. Nobody loves everyone.
9. What does it mean for an argument to be valid? Sound?
10. What does it mean for statements to be logically consistent?
11. **CRITICAL THINKING**—Is Logicism true? Explain.

12. Fill in the justifications for the following derivation in PL.

1.	$(\forall z)(\forall w)((Az \& Cw) \supset Bzw)$	Assumption
2.	$(Am \vee An) \& Cr$	Assumption
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3.	Cr	-----
4.	$Am \vee An$	-----
5.	Am	-----
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6.	$Am \& Cr$	-----
7.	$(\forall w)((Am \& Cw) \supset Bmw)$	-----
8.	$(Am \& Cr) \supset Bmr$	-----
9.	Bmr	-----
10.	$Bmr \vee Bnr$	-----
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11.	An	-----
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12.	$An \& Cr$	-----
13.	$(\forall w)((An \& Cw) \supset Bnw)$	-----
14.	$(An \& Cr) \supset Bnr$	-----
15.	Bnr	-----
16.	$Bmr \vee Bnr$	-----
17.	$Bmr \vee Bnr$	-----
18.	$(\exists y)(Bmy \vee Bny)$	-----