Quiz 2

1. The major premise of any categorical syllogism is the premise that

contains the predicate of the conclusion

2. The _____ is the term occurring in a syllogism that appears in both the oremesis of a categorical syllogism but not in the conclusion

Middle term

3. A term is said to be _____ when reference is made to only a portion of the class of objects

Undistributed

4. Two propositions are _____ when they can both be true, but both cannot be false

Sub-contrary

5. A statement about a relationship of either inclusion or exclusion, partial or total, between two groups of objects or events is called

Categorical

6. A(n) _____ proposition declares that the relationship between two classes is one of partial inclusion

I form

7. A(n) ____ proposition declares that the relationship between two classes is one of total exclusion

E Form

8. A(n) ____ proposition declares that the relationship between two classes is one of partial exclusion

O Form

9. The propositions in an argument that support the conclusion are called the _____

Premises

Quiz 2 (cont)

10. Whenever a conclusion is drawn from a single premise, without reference to evidence from any other source, we call this argument

Immediate inference

11. A term is said to be a _____ when reference is about the entire class of objects

Distributed

12. An unreliable inference or error in reasoning is called a ____

Fallacy

Multiple Choice

Homework

1. A few lazy students do not prepare for class. Steve prepares for class. We can conclude that Steve is not a lazy student

Answer:

Some lazy students are not class preparers O
All Steve (d) are class preparer (u)
A

_____

Steve is not a Lazy student --> No Steve (d) are class preparer (u)
Invalid:Illicit Distribution

A. Fallacy of four terms
B. Undistributed middle term
C. Faulty exclusion
D. Illicit distribution
E. Syllogism

Rules

Step 1: Change the claim to either its contrary if universal or subcontrary if particular

Step 2: Leave the subject alone

Step 3. Compliment the predicate

Quiz 2 - Convert if possible

1. All envious people are difficult to work with

Can't convert (it is an A form)

2. No exams are pleasant experiences

No pleasant experiences are exams

Quiz 2 - Obvert

1. No terrorists are patriotic Americans

All terrorists are non-patriotic Americans

2. Any term distributed in the conclusion of a categorical syllogism must be distributed in the premises

No terms distributed in the conclusion of a categorical syllogism are terms that must be non-distributed in the premises

Quiz 2 - True, False, Unknown

Assume the following proposition is TRUE *All patriots are voters.*

1. No patriots are non-voters

True

2. All non-voters are non-patriots

True

3. All voters are patriots

Unknown

4. Some patriots are not voters

False

Quiz 2 - True, False, Unknown (cont)

5. Only voters are patriots (No non-voters are patriots)

True

6. Only patriots are voters (No non-patriots are voters)

Unknown

7. Some patriots are voters

True

Quiz 2 - Restate in standard categorical form

1. Nearly every student must be immunized

Some students are people who must be immunized

2. Only freshmen can enroll today.

No non-freshmen are students allowed to enroll today

Definitions

A	Distributes the subject
E	Distributes both
I	Distributes neither
O	Distributes the predicate
Middle Term	occurs in the premises, distributed once, cannot be in the conclusion
Major Premises	the predicate of the conclusion
Contradiction	opposite truth value - if one's true, the other is false
Contrary	Both can't be true, however both can be false

Definitions (cont)

Sub-Contrary	Both can be true at the same time, however both can't be false at the same time
Subimplication	The truth of the universal proposition guarantees the truth of the particular
Superimplication	The falsity of the particular claim guarantees the falsity of the universal
Syllogism	Deductive argument in which a conclusion is drawn from 2 pieces of evidence (premises)

Arguments with missing propositions are called **Enthymemes**

Quiz 2 - Consider the argument

Since all politicians are careful planners and it is also a fact that nearly all bank robbers are also careful planners. It only stands to reason that some bank robbers are politicians

Answer: The conclusion of the argument is a - Some bank robbers are politicians

Quiz 2 - Consider the argument (cont)

Determine if the arguments are valid or invalid. Which reason describes the reason the syllogism is invalid. **A: Fallacy of four terms B: Undistributed middle term C: Faulty exclusion D: Illicit distribution E: Syllogism satisfies all four terms**

1. Every politician provides his services and experiences freely. No criminal gives freely his experience and services. Therefore no politician is a criminal. **Answer:** VE

2. This building was certified prior to the fire because it was inspected and all certified buildings have been inspected **Answer:** IB

Quiz 2 - Consider the argument (cont)

3. The categorical proposition *Only truly dedicated men enter the priesthood.* Is translated to **Answer:** No non-truly dedicated men are men who enter the priesthood

Notes

(A Form): All (___) [distributed] are (___) [undistributed]: inclusive quality; universal quantity

(I Form): Some (___) [undistributed] are (___) [undistributed]: inclusive; partical

(E Form): No (___) [distributed] are (___) [distributed]: exclusive; universal

(O Form): Some (___) [undistributed] are not (___) [distributed]: exclusive; partial

Inclusive: A, I

Exclusive: E, O

Universal: A, E

Partial: I, O

Only is universal and exclusive = E Form

A Few = I form

Few = O form

If there are no non's you can leave it alone

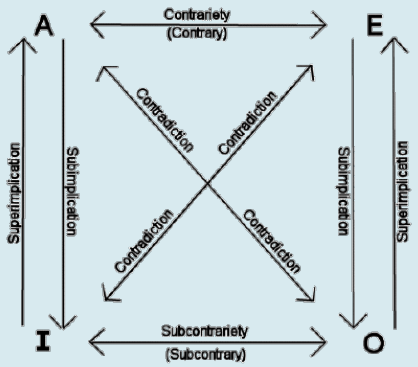
Only use conversion on E and I forms

A and I = Affirmative quality

Notes (cont)

E and O = Negative quality

Square of Opposition



Quiz 2

1. In the O-form proposition the subject is undistributed

True

2. No valid argument can have a false conclusion if the premises are true

True

3. Conversion is a valid operation for all four types of categorical propositions

False

4. In a valid categorical syllogism, the middle term must be distributed twice

False

5. A valid categorical syllogism must have exactly three terms, each used exactly twice to refer the same class

True

6. In a valid categorical syllogism, every term distributed in the premises must be distributed in the conclusion

False

Quiz 2 (cont)

7. When two categorical propositions differ in only their degree of generality, the truth of the more general proposition logically implies the less general

True

8. A strong inductive argument is an argument in which the premises of the argument establish a relatively high degree of probability that the conclusion is true

True

9. If a conversion is valid, no term in the converse can be distributed unless it was distributed in the original proposition

True

10. All sound deductive arguments have a true conclusion

True

11. Any categorical proposition is logically equivalent to its converse

False

12. A syllogism is a deductive argument with two premises and one conclusion

True

13. It is a flaw in the argument's structure or form that causes the argument to be invalid

True

14. All four forms of standard categorical propositions may be simply converted

False

15. All valid arguments must have a true conclusion

False

Quiz 2 (cont)

16. No invalid argument can have a true conclusion

False

17. If there are two exclusive premises in a syllogism, then the conclusion must be affirmative

False*

18. The truth of the premises guarantee the validity of the argument

False

19. If the premises are true and the argument is valid then the conclusion must be true

True

20. All four standard forms of the categorical proposition have a logical equivalent

True

21. A sound deductive argument must be both valid and have true premises

True