

# Philosophy 57 — Mid-Term Exam

Solutions posted 04/01/03

Please write only your **final answers** on these sheets. Use scrap paper, if necessary, to work problems out before writing your final answers below. You have 75 minutes to complete the examination, which has four parts.

## 1 True/False (Circle the correct answer)

- Ⓙ F 1. A valid argument may have a false premise and a false conclusion.
- Ⓙ F 2. A valid argument may have a false premise and a true conclusion.
- Ⓙ F 3. A sound argument may have a false conclusion.
- Ⓙ F 4. In the appeal to force, the arguer physically attacks the listener.
- Ⓙ F 5. In the straw man fallacy, an arguer often distorts another person's argument by making it appear more extreme.
- Ⓙ F 6. "The only *A* are *B*" gets translated into Categorical Logic as "All *B* are *A*".
- Ⓙ F 7. "Only *A* are *B*" gets translated into Categorical Logic as "All *A* are *B*".
- Ⓙ F 8. The obverse of "All *A* are non-*B*" is "No *A* are *B*".
- Ⓙ F 9. **A** and **O** type categorical statements are equivalent to their contrapositives.
- Ⓙ F 10. **E** and **I** claims are equivalent to their converses.

## 2 Matching (Match Each Passage with its Best Description)

Passages:

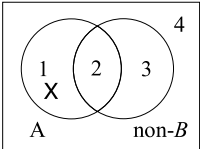
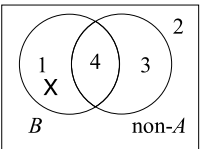
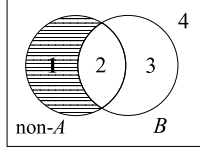
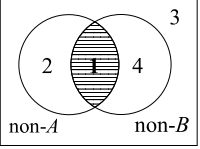
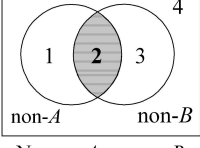
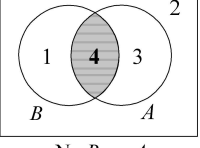
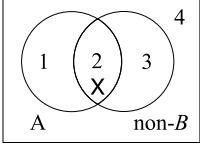
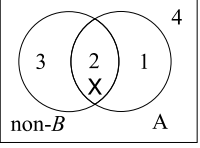
- \_\_c\_\_ 1. "I know that some of you oppose the appointment of David Cole as the new sales manager. Upon further consideration, however, I am confident you will find him well qualified for the job. If Cole is not appointed, it may become necessary to make severe personnel cutbacks in your department."
- \_\_a\_\_ 2. "All lines are things made up of points. No points are things with length. Therefore, no lines are things with length."
- \_\_b\_\_ 3. "Surely architect Norris is not responsible for the collapse of the Central Bank Tower. Norris has had nothing but trouble lately. His daughter eloped with a child molester, his son committed suicide, and his alcoholic wife recently left for Las Vegas with his retirement savings."
- \_\_e\_\_ 4. "President George W. Bush argues that we should open up the Arctic National Wildlife Refuge for oil drilling. But Bush just wants to reward his rich cronies in the oil industry who got him elected. Therefore, we can hardly take Bush's arguments seriously."
- \_\_f\_\_ 5. "Each and every brick in the completely brick-faced Wainright Building has a reddish brown color. Therefore, the Wainright Building has a reddish brown color."
- \_\_d\_\_ 6. "Brewing magnate Joseph Coors has argued that government should get off the back of the American businessman. Obviously, Coors wants to abolish government altogether. Yet without government there would be no defense, no judicial system, no Social Security, and no health and safety regulations. None of us wants to forgo these benefits. Thus we can see that Coors's argument is absurd."

Descriptions:

- |                                       |                   |
|---------------------------------------|-------------------|
| a. Fallacy of Composition             | b. Appeal to Pity |
| c. Appeal to Force                    | d. Straw Man      |
| e. <i>Ad Hominem</i> (circumstantial) | f. No Fallacy     |

### 3 Transformations & 2-Circle Diagrams (Fill-in blank cells/diagrams)

**NOTE:** The complement of 'non- $X$ ' may be written as *either* 'non-non- $X$ ' or ' $X$ '. Any correct diagrams are acceptable.

Original Statement	Venn Diagram (of original)	Transformation	Transformed Statement	Venn Diagram (of transform)	Equivalent? (Yes/No)
Some $A$ are not non- $B$ .	 Some $A$ are not non- $B$	Contraposition	Some $B$ are not non- $A$ .	 Some $B$ are not non- $A$	Yes
All non- $A$ are $B$ .	 All non- $A$ are $B$	Obversion	No non- $A$ are non- $B$ .	 No non- $A$ are non- $B$	Yes
No non- $A$ are non- $B$ .	 No non- $A$ are non- $B$	Contraposition	No $B$ are $A$ .	 No $B$ are $A$	No
Some $A$ are non- $B$ .	 Some $A$ are non- $B$	Conversion	Some non- $B$ are $A$ .	 Some non- $B$ are $A$	Yes

### 4 Translations from English into Categorical Logic

**Instructions.** For each English sentence below, determine the appropriate quantifier, subject term, copula and predicate term for its best translation into the language of Categorical Logic. There may be multiple correct translations. Any translation (into Categorical Logic!) which is closest to the meaning of the English sentence will be given full credit. **Work on scratch paper first — then write your final answers carefully (and legibly) in the boxes provided.**

1. Any bank that makes too many risky loans will fail.

Quantifier	Subject Term ( $S$ )	Copula	Predicate Term ( $P$ )
All	banks that make too many risky loans	are	banks that will fail

2. Warmth always relieves pain.

Quantifier	Subject Term ( $S$ )	Copula	Predicate Term ( $P$ )
All	times at which warmth is applied	are	times at which pain is relieved

3. The Kentucky Derby is never run in January. (Two acceptable answers here — see me for any grading corrections.)

Quantifier	Subject Term ( $S$ )	Copula	Predicate Term ( $P$ )
No	times at which the Kentucky Derby is run	are	times during January
No	races identical to the Kentucky Derby	are	races that are ever run in January

4. Not every river runs into the sea.

Quantifier	Subject Term ( $S$ )	Copula	Predicate Term ( $P$ )
Some	rivers	are not	things (or rivers) that run into the sea.

5. There are forced labor camps in China.

Quantifier	Subject Term ( <i>S</i> )	Copula	Predicate Term ( <i>P</i> )
Some	forced labor camps	are	things (or camps) located in China

6. Feathers are not heavy.

Quantifier	Subject Term ( <i>S</i> )	Copula	Predicate Term ( <i>P</i> )
No	feathers	are	heavy things

7. A few apartment dwellers are victimized by incessant noise.

Quantifier	Subject Term ( <i>S</i> )	Copula	Predicate Term ( <i>P</i> )
Some	apartment dwellers	are	persons who are victimized by incessant noise

8. She says what she pleases.

Quantifier	Subject Term ( <i>S</i> )	Copula	Predicate Term ( <i>P</i> )
All	things she wants (or pleases) to say	are	things she says

9. James Michener wrote only historical novels. (Two acceptable answers here — see me for any grading corrections.)

Quantifier	Subject Term ( <i>S</i> )	Copula	Predicate Term ( <i>P</i> )
All	persons identical to James Michener	are	persons who wrote only historical novels
All	novels written by James Michener	are	historical novels

10. A television show that depicts violence incites violence.

Quantifier	Subject Term ( <i>S</i> )	Copula	Predicate Term ( <i>P</i> )
All	television shows that depict violence	are	television shows that incite violence

11. A civil right is unalienable if it is a human right.

Quantifier	Subject Term ( <i>S</i> )	Copula	Predicate Term ( <i>P</i> )
All	civil rights that are human rights	are	civil rights that are unalienable rights

12. None but computer buffs are net surfers.

Quantifier	Subject Term ( <i>S</i> )	Copula	Predicate Term ( <i>P</i> )
All	net surfers	are	computer buffs

13. Lunar eclipses do not occur unless the moon is full.

Quantifier	Subject Term ( <i>S</i> )	Copula	Predicate Term ( <i>P</i> )
All	times at which there is a lunar eclipse	are	times at which the moon is full

14. Where there's smoke, there's fire.

Quantifier	Subject Term ( <i>S</i> )	Copula	Predicate Term ( <i>P</i> )
All	places where there is smoke	are	places where there is fire

15. All but the rats left the sinking ship [two claims needed here — it's an *exceptive*].

Quantifier	Subject Term ( <i>S</i> )	Copula	Predicate Term ( <i>P</i> )
No	rats	are	animals that left the sinking ship
All	non-rats	are	animals that left the sinking ship