

Final Exam

PHILO 5373, Critical Thinking William Dembski, Spring 2011

This is your take-home final. Answer all questions succinctly. For this exam, you may only consult the Murphy and Gensler texts, your class notes, and the Bible -- you may not cruise the web, you may not look at other articles and books, and you may not consult with other people for the answers. In handing this exam in, you agree, ON PAIN OF DIVINE WRATH, that this is your work and you have obeyed these guidelines. The points assigned to each question are given in brackets, with total points summing up to 200. This exam is worth 30 percent of your grade. You have till noon (plus a fifteen minute grace period) on Monday, May 2, 2011 to email your answers to this exam to dembski.grading.1 AT gmail.com (substitute “@” for “AT”).

1. Identify the following [1pt each; 10 pts total]:
 - (i) Greek philosopher who, for over 2000 years, was thought to have defined logic.
 - (ii) The German philosopher and mathematician who revolutionized logic in the late 19th century.
 - (iii) The type of logic concerned with necessity and possibility.
 - (iv) Fill in the blank: What makes modern quantificational logic more powerful than the classical syllogistic logic is its ability to handle dependent quantifiers and its ability to handle not just 1-place predicates but also multiple-place _____.
 - (v) Person who makes first argument in Bible.
 - (vi) A formula from symbolic logic in which all parentheses are where they need to be and all logical connectives are used properly.
 - (vii) Fallacy in which a choice is given between two apparently contradictory alternatives both of which may be true or which allow a third possibility.
 - (viii) Fallacy in which a statement, when applied to itself, shows that the statement can't be true.
 - (ix) The odds are 3 to 1 against your horse winning the derby. What is the probability that your horse will win the derby?
 - (x) Fill in the blank: In statistical work, the best type of sample is a _____ sample.
2. List and briefly define the three means or modes of rhetoric/persuasion. Give an example of each. [10pts]
3. List and briefly define the five canons of rhetoric. Which two of these are most important in our day? Why are the other three less important today than in times past? [10pts]

4. What is a deductive argument? What does it mean to say that a deductive argument is valid? What does it mean to say a deductive argument is sound? Are any arguments other than deductive arguments capable of being valid? Explain. [10pts]
5. What is hypothetical reasoning? Describe its structure. From the vantage of deductive logic, why does hypothetical reasoning constitute an invalid form of inference? Why are hypothetical arguments also called inferences to the best explanation? [10pts]
6. Translate the following into symbolic logic [2pts each; 20 pts total]
(note that you may want to use, by cutting and pasting, the following symbols: \sim , \vee , \cdot , \supset , \equiv , \exists , \square , \diamond)
- (i) God loves Jacob or God loves Esau.
 - (ii) God loves Jacob or God loves Esau, but not both.
 - (iii) If God loves Jacob or God loves Esau but not both, then God doesn't love everybody.
 - (iv) All actors are communists.
 - (v) Some actors are communists.
 - (vi) No actors are communists.
 - (vii) Some are actors or communists if and only if some are actors or some are communists.
 - (viii) If it's possible that God exists, then it's necessary that God exists.
 - (ix) For every number there is some number greater than it.
 - (x) It's not the case that there's some number that's greater than every other number.
7. Translate the following from symbolic logic into English [2pts each; 10 pts total]
(Let P = Paul loves Mary; Q = Quentin loves Mary; $Bzxy = z$ is between x and y ; $Wx = x$ is a woman; $Mx = x$ is moral; G = God exists; E = Ethics exist objectively.)
- (i) $((\sim P \vee \sim Q) \equiv \sim(P \cdot Q))$
 - (ii) $((P \supset Q) \equiv (\sim Q \supset \sim P))$
 - (iii) $(x)(y)(\exists z)(\sim x=y \supset Bzxy)$
 - (iv) $((x)(Wx \supset Mx) \vee (\exists x)(Wx \cdot \sim Mx))$
 - (v) $((\square(G \supset E) \cdot \diamond G) \supset \diamond E)$
8. Prove the following [10pts each; 20 pts total]
(Here are the inference rules you'll need in this problem: in (i) use reductio ad absurdum, modus ponens (i.e., from $A \supset B$ and A conclude B), and the "NIF" rule on p. 145 of Gensler in which from $\sim(A \supset B)$ conclude A and $\sim B$; in (ii) use reductio ad absurdum, the squiggle rules for quantification (i.e., for any formula F and any variable x , from $\sim(x)F$ conclude $(\exists x)\sim F$ and from $\sim(\exists x)F$ conclude $(x)\sim F$), as well as the DE and DU rules ("drop existential" and "drop universal" rules on pp. 187-188 of Gensler).)
- (i)
 1. $(P \supset Q)$
 2. $(Q \supset R)$ $[\therefore (P \supset R)]$
 - (ii)
 1. $(\exists x)(y)Hxy$ $[\therefore (y)(\exists x)Hxy]$

Answer each of the following four questions [25pts each; 100 total]

9. Make an argument for the resurrection of Jesus Christ from the dead (the claim here is that Jesus rose bodily from the dead). Formulate the argument so that claim, grounds, warrant, backing, qualifier, and rebuttal are present and clearly identified (you don't need to diagram -- simply identify these six items in the argument you make).
10. In the Richard Dawkins video that we watched in class (*The Root of All Evil?*), Dawkins argues for the superiority of science over faith, claiming that faith believes in spite of evidence whereas science is controlled by evidence and willing to be corrected by new evidence. Is Dawkins right that faith is devoid of evidence? Can faith make use of evidence? If so, how? Critically analyze Dawkins' attempt in this video to dismiss faith as an irrational mode of thought that eschews evidence.
11. The Roman historian Tacitus wrote, "Men are more ready to repay an injury than a benefit because gratitude is a burden and revenge a pleasure." Is Tacitus correct? Is he even partly correct? If so, what does this say about our motivation as Christians to obey God? Are we obedient to God out of gratitude? Is gratitude a sufficient ground for obedience? Or do we, as Christians, have other motivations for obedience? Critically analyze Tacitus's claim.
12. You are the head of a large public relations firm in New York. A consortium of Christian businessmen and foundations is fed up with the godlessness of our society and approaches you to run a "rhetorical campaign" to make Christianity and its moral values credible again to the wider culture. You have \$200,000,000 a year for five years to make the campaign work (i.e., a billion dollars total over five years). What programs are you going to institute and how are you going to allocate that money to restore Christianity as a credible world view? What objectives could you realistically hope to accomplish? [Example of a zero-credit answer: give all the money to the ACLU or to the UN.]