

NAME: \_\_\_\_\_

## Philosophy 1104: Critical Thinking

### Quiz #4

November 4, 2009

TIME: 60 minutes

1. Say whether each of the following passages contains an *argument* or an *explanation*. If it contains an argument, then write the argument in standard form. (In this exercise *do not* add any unstated premises.) If the passage contains an explanation, then identify the *cause(s)*, and the *effect* being explained.
  - (i) I think this year's Canucks will do alright. Even without Luongo and half their usual forwards, they're playing with confidence and have eked out a few wins.
  - (ii) The main reason why land-based temperature readings have shown warming over the past century is the "urban heat island" effect. Weather stations are located in cities, where the land has been increasingly covered with blacktop, which absorbs more solar energy.
  - (iii) How did Rachel Carson come to write *Silent Spring*? It started with the USDA's 1957 fire ant eradication program, which the Audubon Society actively opposed. The Society recruited Carson to help make public the government's exact spraying practices and the related research. Carson began the four-year project of what would become *Silent Spring* by gathering examples of environmental damage attributed to DDT.

- (iv) Sure, they keep finding new oil fields, but they're just tiny compared to the massive finds of the past. Ghawar, the biggest of all, was discovered in 1948. Nowadays they are discovering just 10 billion barrels a year, compared to 55 billion a year back in the 1960s. There's no doubt that we're running out of oil.

2. Put the following arguments into standard form. In this exercise *do* add any unstated premises or conclusion, in parentheses. (Watch out for sarcasm – write down what the person really means!)

- (i) Oh sure, we need more safety regulations. Let's wrap ourselves up so tight with red tape that it's impossible for anyone to get hurt! If we do that, then of course there'll be no need to develop any skill or competence, and we'll turn ourselves into thoughtless, clumsy idiots. But I'm sure it'll be worth it.

- (ii) The main reason the economy collapsed is that there are too many smart people on Wall Street. I know people will say it was due to greed, or lack of regulation, but those problems have been around for some time without causing such devastation. What's new is that the physics geniuses from MIT and CalTech starting going to Wall Street instead of grad school. They are the ones who invented all this financial voodoo like credit default swaps.

3. Paraphrase the following sentences into one of Aristotle's forms (A, E, I and O) from the square of opposition.

(i) It's just not true that every religious person is dogmatic.

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(ii) The fact is that there just aren't any good pubs in Vancouver.

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(iii) There are tall women who date short men.

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(iv) Of all the many species on earth, only humans can play the piano well.

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4. For each of the following sentences, write down anything that is not strictly stated, but is suggested by conversational implication.

(i) Everyone other than Fred passed the exam.

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(ii) If your GPA drops below 3.6 then you will lose your scholarship.

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(iii) Did you get an 'A' on your exam? Well, I can tell you that you *passed* at least.

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(iv) A fever is nothing to worry about, unless you also have a bad sore throat.

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5. For each of the following arguments, *say whether or not it is valid*. (I.e. don't worry about whether or not the premises are acceptable.) If it is valid then provide a proof, or draw a Venn diagram showing what the premises tell us. If it is invalid then describe a situation where the premises are all true but the conclusion is false.
- (i) All mammals are both furry and warm-blooded. Now Oscar is warm-blooded all right, but he isn't furry. So Oscar isn't a mammal.
- (ii) Every Icelander eats pickled herring. And no one who doesn't have a strong stomach can eat pickled herring. So all Icelanders have strong stomachs.
- (iii) All dentists are meticulous, and some meticulous people are also nervous, so some dentists are nervous.

6. For each of the following arguments identify the *type* of inference (modus ponens, affirming the consequent, modus tollens, denying the antecedent, or a disjunctive argument) and say whether or not it is deductively *valid*. [Note that valid conclusions are *conclusively proved* by the premises, not just supported to some extent.]

- (i) Of course I have a soul. A purely physical being, lacking a soul, cannot be conscious, and I know I'm conscious!

Type: \_\_\_\_\_ Valid? \_\_\_\_\_

- (ii) It's clear that the recession is over. If the recession is over we will see increases in building permit applications, and that's happening right now.

Type: \_\_\_\_\_ Valid? \_\_\_\_\_

- (iii) Jen isn't an expert on Canadian history. Someone with a Ph.D. on the subject is an expert, of course, but Jen doesn't have a Ph.D.

Type: \_\_\_\_\_ Valid? \_\_\_\_\_