

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

**Philosophy 1104: Critical Thinking**

**Answers to the 3<sup>rd</sup> Practice Quiz #4**

November 2, 2017

TIME: 60 minutes

1. Say whether each of the following passages contains an *argument* for the first sentence, an *explanation* of the first sentence, or just one or more *assertions*. 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. For a series of assertions, say 'assertion'. [3 marks each]
- (i) The continental plates are not fixed in place, but drift around very slowly. This is clear from the close geological similarity of coastlines that are now separated by wide oceans. We can see, for example, that the rocks of eastern South America exactly match those of West Africa, which makes sense only if these continents were once joined.

Argument.            1. Coastlines are similar  
                             -----  
                             So, Continents drift around

- (ii) The continental plates are not fixed in place, but drift around very slowly. The east coast of South America, for example, used to be tucked up against the west coast of Africa, like a couple spooning in bed, and Antarctica was wedged against south east Africa. At one time, in fact, all the continents were joined together into a huge mass called Pangaea.

Assertion.

- (iii) The continental plates are not fixed in place, but drift around very slowly. What happens is that cracks in the ocean crust are opened up by convection currents in the gooey magma beneath. Some of the magma then rises up to fill the crack, and solidifies to form new crust. In this way the ocean gets wider, forcing the continents on either side apart.

Explanation.

**Cause:** Convection currents, **effects:** widening ocean, moving continents

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!) [2 marks each]
- (i) People say I should get my kids vaccinated, but I just can't take that risk. Who wants their children to be autistic?

1. (Vaccines cause autism)  
2. (I don't want my children to be autistic)  
-----  
So, (I should not get my kids vaccinated)

- (ii) Unlike his father, Justin Trudeau doesn't have a great brain. But don't be too quick to dismiss his chances of re-election. Jean Chrétien wasn't exactly a rocket scientist either, and he won three elections.

Justin Trudeau isn't intelligent  
Chretien wasn't intelligent  
Chretien was elected 3 times  
-----  
Justin Trudeau might get re-elected

- (iii) A diet that's high in salt must increase your risk of stroke. Think about it. Eating too much salt has been shown to raise blood pressure in some people, and we know that high blood pressure is a risk factor for stroke. It follows that, if you eat a lot of salt, your blood pressure will increase, and hence you'll have a higher chance of a stroke.

Salt raises blood pressure  
High blood pressure is a risk factor for stroke  
-----  
High salt diet increases risk of stroke

3. Paraphrase the following sentences into one of Aristotle's forms (A, E, I and O) from the square of opposition. (Avoid negative and compound subjects and predicates.)  
[2 marks each]

- (i) Not every boy likes to play in mud.

Some boys do not like to play in mud.

- (ii) There aren't any bars in Langara College.

No thing in Langara College is a bar.

- (iii) Battery-powered cars do exist, actually.

Some cars are battery powered

- (iv) Only bankers drive Ferraris.

All Ferrari drivers are bankers.

4. For each of the following sentences, write down anything that is not strictly stated, but is suggested by conversational implication. [2 marks each]

- (i) Apart from Greece, I'd say the European economies will pull through this crisis.

Greece will not pull through the crisis

- (ii) I'm still alive. [In response to the question: "How was your date last night?"]

The date went badly.

- (iii) If you show me a doctor's note then I'll grant you an extension.

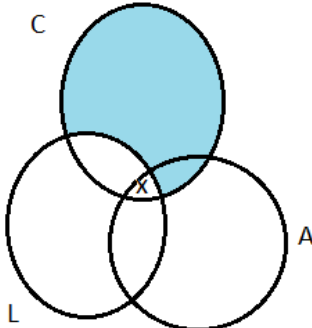
If you don't show me a doctor's note then I won't grant an extension.

- (iv) Americans, when you meet them outside America, are actually quite broad-minded.

Inside America, Americans are not broad minded.

5. For each of the following arguments: (a) Write the argument in standard form. (b) Say whether or not the argument is valid. (c) If it's valid, then show this with either a Venn diagram or a proof. If it's invalid, then describe a possible situation where the premises are true and the conclusion is false. [3 marks each]

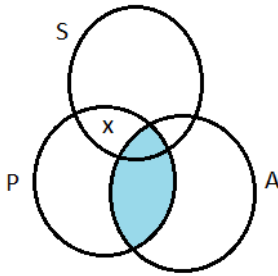
- (i) All cats are lazy, but some cats are adorable. So some lazy things are adorable.

<p>All C are L Some C are A ----- Some L are A</p> <p><b>Valid</b></p>	
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- (ii) All charities ask for money. Therefore some charities are fraudulent, since fraudulent operations all ask for money.

<p>1. All charities ask for money 2. Fraudulent operations all ask for money ----- Some charities are fraudulent</p> <p><b>Invalid</b></p>	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="border: 2px solid black; padding: 5px; text-align: center;">Oxfam</div> <div style="border: 2px solid black; padding: 5px; text-align: center;">Liberal Party of B.C.</div> <div style="border: 2px solid black; padding: 5px; text-align: center;">Bernard L. Madoff Investment Securities</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <p>ask for money</p> <p>ask for money fraudulent</p> <p>ask for money fraudulent</p> </div>
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- (iii) Not all scientists are atheists. We know this because some scientists are priests, but no priest is an atheist.

<p>1. Some S are P 2. No P is A ----- Some S are not A</p> <p><b>Valid</b></p>	
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6. For each of the following arguments identify the *type* of inference (modus ponens, affirming the consequent, modus tollens, denying the antecedent) and say whether or not it is deductively *valid*. [2 marks each]

- (i) My son doesn't cry unless he's badly injured. That's means he really is hurt, because he's bawling right now.

Type: MT

Valid? YES

- (ii) People who have a realistic view of themselves tend to get depressed. Now, I am just such a realist, so I'm likely to get depressed at some point.

Type: MP

Valid? YES

- (iii) Rachel will do well, if she studies hard. But she is not studying hard, is she? Hence Rachel will not do well.

Type: DA

Valid? NO

- (iv) If Descartes is right, then animals are just complex machines, with no conscious experiences. But obviously animals are conscious, so Descartes is wrong.

Type: MT

Valid? YES

- (v) A dog will bite a person only if it feels threatened. In this case the dog didn't bite anyone, so obviously it did not feel threatened.

Type: DA or AC

Valid? NO