

## PHIL2642: Critical Thinking

### Practice Exercises on Conditionals and Deduction

#### Questions only in this document

**1 (i) State the necessary and sufficient condition of each of these conditional claims. Rewrite the claims in the form of "If ... then ...".**

**(ii) Give an example of something which would be a counterexample to each of these claims. If a counterexample is impossible, say why.**

- a) Every spider has venom.
- b) You won't die of lung cancer if you don't smoke.
- c) Only people who aren't Muslims drink alcohol.
- d) All voters in Australian federal elections are people over 18 years old.
- e) It is only Melbournians who don't like Sydney.
- f) If volunteer fire fighters were paid by the Government it would put too much strain on the budget.
- g) Only if Australia accepts more refugees will we not be internationally criticised.
- h) It's not an episode of keeping up with the Kardashians if it doesn't have numerous meaningful pauses.
- i) Only if it's black and chewy is it liquorice.
- j) All people who are working legally in Australia have a tax file number.

**2) State the necessary and sufficient conditions for the conditional claim in these arguments. What is the form of each of the arguments? Is this a valid form or an invalid form?**

- a) If you contribute at your job you'll be appreciated. You did contribute, so you will be appreciated.
- b) If you are irritating me I can't be held responsible for what I do. You are not irritating me, so I can be held responsible for what I do.
- c) If a dog isn't trained from when it's a puppy, it not be a well behaved adult. Sandy is a very well behaved dog, so he must have been trained from when he was a puppy.
- d) Spot is a dog, and since only human beings are moral agents, Spot can't be a moral agent.
- e) All members of the household buy groceries, but John isn't a member of the household. Therefore John doesn't buy any groceries.
- f) Only those who are not vegetarian eat meat. John eats meat, so he is not a vegetarian.

- g) Sonia did not pass the exam. Since everyone who did not study did not pass, we can conclude that she did not study.

**Assignment Project Exam Help**

**<https://powcoder.com>**

**Add WeChat powcoder**