

Philosophy 104
Exam Study Questions

Questions on the Problem of Induction

16. Answer *all* of the following:

i) Give a clear, accurate definition of the following:

a) *valid deductive argument*

b) *sound deductive argument*

ii) Give an example of a valid deductive argument that is not sound.

iii) In lecture we asked why the conclusion of a deductive argument must be true if the premises are, and an answer was presented. Give a clear, accurate sketch of that answer.

iv) Give a clear accurate explanation of the idea of a valid deductive argument *form*. Your answer should include at least two illustrations of valid different deductive argument forms.

v) Give a clear, accurate sketch of the way in which the concept of a valid deductive argument *form* was central to the development of computer science.

17. Answer *all* of the following:

i) What is an enumerative inductive argument to the next case? Give an example.

ii) What is an enumerative inductive argument to a generalization? Give an example.

iii) What is an inference to the best explanation? Give an example from science and one from everyday life. Your examples should include details about the premises and conclusions of these arguments.

iv) Explain what distinguishes these three sorts of arguments from valid deductive arguments.

18. Answer *all* of the following:

- i) Give a clear, accurate and *detailed* sketch of the argument by which Hume tried to show that inductive reasoning could not be justified.
- ii) In lecture it was argued that appeal to the concept of probability does not provide a way around Hume's skeptical challenge. Give a clear, accurate sketch of that argument.

19. Answer *all* of the following:

- i) In the first physics lecture that Salmon describes, the professor performs an experiment with a bowling ball. The student asks the lecturer how he knew that the experiment would work. What is the professor's answer?
- ii) Shortly afterwards, the student contrasts the scientist's conviction in experimental regularity with his own lack of conviction that riding with a maniac driver (who has never had an accident) is safe. A second student suggests one difference that s/he considers important. State and explain the second student's suggestion.
- iii) What is the professor's response to the second student's suggestion?
- iv) Hume draws a distinction between 'relations of ideas' and 'matters of fact'. From the answers you have given to the earlier parts of this question, name one thing that (according to Salmon) counts as a relation of ideas and one thing that counts as a matter of fact.
- v) After the first physics class, the student thinks that Hume would have stopped worrying about induction if he had known more modern science. Explain the reason why the student thinks that knowing more science would solve Hume's problem. Illustrate your answer clearly with examples from the text.