

Philosophy 2330: Science and Society Exam 1
Thursday, March 9, 2017

Please write your R# (but not your name) on the front of your blue book. All answers should be written in your blue book. For some questions, pictures might be helpful. Please feel free to draw.

Part I: Short answer. Answer each of the following questions – each answer should be a few sentences long. Each question is worth 9 points.

- 1) What does Kelly James Clark mean by “metaphysical naturalism” and “methodological naturalism” and how are they different?
- 2) Stephen Jay Gould calls his view about the relationship between science and religion “NOMA”. What does this mean? Why does Richard Dawkins think this is a bad view?
- 3) Explain what an epicycle is in Ptolemy’s model of the cosmos.
- 4) Briefly describe Galileo’s views on Biblical interpretation as it relates to the interaction between science and religion.
- 5) How does Steve Dilley characterize arguments for evolution such as those that Theodosius Dobzhansky gives in his famous article “Nothing in Biology Makes Sense Except in the Light of Evolution”? Why does Dilley think that these arguments are (partly) theological in nature?
- 6) Does Plantinga think that questions such as those about the age of the earth are religious questions? Or scientific ones? How does he recommend that we determine what to believe about questions like this?

ESSAY QUESTIONS ON THE BACK

Part II: Essay questions. Answer two of the following essay questions. You must answer either question 7 or question 8 and you must also answer either question 9 or question 10. A good answer will be a few paragraphs. Each answer is worth 23 points.

Answer either question 7 or question 8:

7) For #7, answer both parts:

7a) If we track the motion of a planet such as Mars in the sky over time it occasionally undergoes what is called “retrograde motion”. What does this motion look like from our viewpoint? How does the Ptolemaic model of the cosmos explain this apparent motion and how does the Copernican model explain it? Explain why Copernicus, Galileo, and others took this to be an argument for the heliocentric view.

7b) With a telescope Galileo was able to observe that Venus went through phases. Explain what this means and explain how this observation is relevant as evidence in understanding the structure of the cosmos.

8) Kelly James Clark lists many different types for evidence for evolution including the fossil record, biogeography, comparative anatomy, embryology, and genetics. In addition to some of these, Dobzhansky also lists observations that he puts under the headings of the unity of life, the diversity of life, and adaptive radiation. Describe some empirical observations covering at least three of these categories and explain why they are taken to be evidence for evolution.

Answer either question 9 or question 10:

9) Kelly James Clark uses the initials “C.S.I.” to describe three possible types of views of the relationship between science and religion. Describe and critically evaluate each of these types of views.

10) Do you think methodological naturalism is the best way to do science? Could there be another way to do science (that would still properly count as science)? In particular, is methodological naturalism a reasonable view even if you do not accept metaphysical naturalism? In giving an argument for your view, be sure to consider some reasons why someone (such as an author we read in class) might disagree with you and why you think they are wrong.