## AHRF19 Test 2

S Bringsjord, Mike Giancola, & Can Mekik 1028191100NY

## Note:

- 1. Please write your name on the cover of your answer booklets now, before you begin in earnest. Thank you.
- 2. As you proceed, label each answer in your answer booklets with the appropriate 'Qn'. Thanks.

Answer only five of your choosing from the essay questions Q2-Q10 that appear below. Q1 is not optional; everyone must attempt it. Again, label each answer with the appropriate 'Qn'. The length of each of your five essays is up to you, but budget your time wisely, so that you can answer five questions cogently. Clarity and power of argumentation is key; mere length of answer isn't valuable. It's highly recommended that you outline your answer before you start to write the answer itself. As you will see, each such outline would presumably start with the clear statement of your main claim. Please note that the first question, Q1, is a reasoning problem, not an essay.

- Q1 This question is the only non-essay question you will see on the present exam. If you get stuck on it, finish your essay questions first, as they are more important. Then come back to question Q1. Here is the question:

  Suppose that you're Dr Who, and that you enter a civilization every inhabitant of which
  - Suppose that you're Dr Who, and that you enter a civilization every inhabitant of which is either constantly a truth-teller, or constantly a liar. Before departing for this strange civilization, you were given a briefing about it, and were even quickly shown some photographs of the faces of a few of the inhabitants, and also quickly told some of the names of those in these pictures. You come upon an inhabitant, and you remember that his name is either Barry or Gary. You ask this inhabitant his name, and he replies "Gary." What is it rational for you to believe, that this inhabitant is a truth-teller, or else that he is a liar, or else that you shouldn't form a belief about what category he falls into? Provide a justification for your position.
- Q2 According to Kahneman, does the body of his work (in large measure with, of course, collaborator Tversky), and in particular the results of experiments like the Linda problem, as described in his *Thinking*, *Fast & Slow*, imply that humans are irrational? Justify your answer, and *make sure you include reference to and discussion of the "rational-actor" view of rationality*, which as you'll recall Kahneman discusses.
- Q3 Following others, Kahneman distinguishes between two modes of thinking, both apparently present and active within the human mind: \_\_\_\_\_ 1 and \_\_\_\_ 2. Name and characterize both. Next: A systematic examination of the differences between these two modes would most likely be an example of thinking in which of the two modes? Why?
- Q4 S Bringsjord defended the rationality of activist investors (e.g. Carl Icahn) against Kahneman's "overconfidence" claims. Summarize this debate, then articulate your own position on it, and defend your position. Be as specific as possible, both with respect to prose in Kahneman's book, and what we covered in class, perhps even citing relevant activist letters.

- Q5 Recall the Good-&-Chalmers argument for the proposition that the Singularity will happen. Do you accept or reject this argument? Defend your position by argument. Then give the strongest objection to your view and argument that you can devise. Finally, disarm the objection.
- Q6 Suppose that you are called in as a rational, objective expert to testify before a U.S. Congress deeply concerned about the possibility that the advance of AI and robotics will cause massive human unemployment, principally among the poor. Drawing in part from what you have heard, read, and learned so far in this *Are Humans Rational?* class, including specifically your assigned reading on this topic, what would you tell Congress? (You must do your best to play the role of advisor, on the strength of what you have learned, and your reflection. You can't just say something like "Well, I've no comment, because I'm no expert!")
- Q7 Recall that we brought the meaning-of-life debate into focus by viewing the debate to revolve around this question:
  - Q What, if anything, makes life meaningful?

Nozick and Bringsjord are of the view that the "Experience Machine" shows that if there is something that makes life meaningful, it surely isn't pleasure or even happiness. Do you agree with this view? If not, provide an argument for your position. If so, devise the strongest objection to this view that you can find, articulate this objection, and refute it.

- Q8 It's quite hard to see how intelligent computing machines, in the form of AI and robots, can be rational if they can't really learn. As you know, Bringsjord et al. maintain that these machines, if based on today's statistical/connectionist "machine learning" in fact, can't really learn. Drawing from the paper in question, and from what was presented by and discussed in class, take a stand on whether or not these machines can really learn, and defend your position by way of cogent argument.
- Q9 Mike Giancola sends you on a mission to DARPA, in order to try to convince those there to provide a lot of money to certain AI scientists and engineers to produce autonomous intelligent computing machines/robots that never behave unethically. The problem is that you must specifically explain to DARPA how a robot will handle the Jungle Jim problem. What will your explanation be? You are required to provide a reasoned argument as part of your explanation.
- Q10 S Bringsjord's main claim in this class is of course  $\mathcal{R}$ , and the concomitant  $\mathcal{H}$ . While it's early, as there is still plenty of relevant material and debate to come, are you currently inclined to accept  $\mathcal{H}$ , reject it, or are you agnostic? (Notice that  $\mathcal{R}$  is here ignored.) Defend your current inclination with a reasoned argument.