

Directions: Closed book, closed notes. Please answer everything in the exam booklet provided. Anything written on this sheet will not be graded

I. Terms: Please provide short answers (several sentences, up to a paragraph if necessary) describing and defining such terms. Do not provide critical analysis (“Just the facts, ma’am/sir.”) Choose 5 from the following 6 (@ 5 pts each).). If you do all 6 I’ll grade the best 5.

- a.) Apriori/Aposteriori
- b.) Retrorecognition
- c.) Empirical adequacy (Both the “informal sense” and van Fraassen’s notion)
- d.) Ontology
- e.) Scientific Realism
- f.) Anomaly/crises (Aside from defining both in a simple sentence or two, state in 1-2 sentences their relation)

ESSAY QUESTIONS: Please choose 2 from the following 3 (@25 pts each) and answer completely as possible

1.) Explain briefly what is meant by the “Problem of Demarcation.” Describe (without explaining in depth) the various criteria proposed by Popper, Lakatos, Kuhn, and Thagard. Make sure you specify: a) who argued that their criteria function only as necessary conditions, b) who argued that their criteria were both necessary and sufficient, c) who didn’t venture that far (i.e. believed the demarcation line is vague at best). Then, in a paragraph or two, argue why you think one the above four provide the most effective ‘solution’ or argue why all them fall short—i.e. , argue why you think the problem is unsolvable.

2.) Explain briefly what Longino meant by ‘cognitive’ versus ‘contextual’ values, and what relation they have (if any) with Kuhn’s notions as discussed in his essay on Values and Theory-Choice. Make sure you give (at least) a brief mention of what Kuhn meant by ‘background.’ List Kuhn’s five criteria (without explaining them in depth) and Longino’s criteria of ‘transformative criticism’ (without explaining them in depth). Make sure you state in a sentence or two whether (or not) Kuhn or Longino believe objectivity in theory-choice is a process that is irrational or logically regimented. Then, in a paragraph or two, argue either: a) Kuhn against Longino: I.e. who do think provides a more effective account of objectivity/theory choice and why? or b) Neither K nor L: I.e. argue that both attempts fall seriously short either because (on one extreme) objectivity is untenable or (another extreme) there are reliable procedures in place to secure such notions (i.e. inductive logic).¹

3.) Explain briefly what is meant by the problem of conceptual change and how Popper, Kuhn, and Laudan sought to deal with it. For the latter, simply give a brief description without explaining in depth their ‘takes’ or programmes. Feel free to use any convenient analogy concerning how the ‘ontology’ of their variously fundamental explanatory notions fit together. Then, in a paragraph or two, argue either: a) Why one of the above three has the most effective approach and why, or b) Why all of them fall short in significant ways. Feel free to mention (without explaining in much detail) whether or not you feel Giere/Nersessian have a better ‘take’ and why (or why not, i.e that you believe the problem of conceptual change is insurmountable).

¹ If you choose this option, you need not explain in any depth what inductive logic is. Just give 1-2 sentences giving the gist of its aims.