

Exam Philosophy of Science, 7 November 2011, 14-17 h.

Be systematic and pay attention to the logical structure of your answer---do not leave out any important steps from your arguments. Within these boundaries: be concise! Clearly mention your name and student number.

1. a. Peter Lipton makes a distinction between two problems of induction: the problem of description and the problem of justification, respectively. Explain these two problems. According to Lipton the problem of justification can be discussed independently of the problem of description. Explain why this is so.
b. According to Popper science does not need a solution to the problem of induction. Explain his reasons for claiming this. Formulate and defend your own position with respect to Popper's proposal.
2. An often-made claim is that Kuhn's philosophy of science involves a downgrading of the role of rationality in the historical development of science. Explain why this interpretation of Kuhn is possible. Having read some articles by Kuhn himself, what do you think of the above claim? Argue in some detail why you agree or disagree.
3. a. Explain the Duhem-Quine thesis.
b. Discuss the differences between the ideas of Duhem and those of Quine.
c. Do you think that the analyses offered by Duhem and Quine, respectively, are convincing? Motivate your reply.
4. According to adherents of the Bayesian approach in the philosophy of science the notion of probability is an essential tool for understanding scientific rationality.
a. Explain what they mean by this claim. What interpretation of probability do Bayesians adopt?
b. The Bayesian approach faces a number of problems. One of these is that Bayesianism seems to favor instrumentalism; another is the so-called problem of old evidence. Explain both of these problems. How serious do you think they are?