

PHILOSOPHY TRIPOS Part IB

Thursday 28 May 2015

09.00 – 12.00

Paper 6

PHILOSOPHY OF SCIENCE

*Answer **three** questions only.*

Write the number of the question at the beginning of each answer. If you are answering the either/or question, indicate the letter as well.

STATIONERY REQUIREMENTS

20 Page Answer Book x 1

Rough Work Pad

**You may not start to read the questions
printed on the subsequent pages of this
question paper until instructed that you
may do so by the Invigilator**

1. Formulate the most defensible version of falsificationism. Can it stand up to objections?
2. Is it possible to know the entity that we see through a microscope is not an artefact of the technology or scientific theory?
3. Does the history of theoretical change in the sciences show that science is an irrational enterprise?
4. What are the weakest aspects of the 'argument from the success of science' for scientific realism? Are they fatal?
5. Does the historical development of science support the reductionist ambitions of physics?
6. 'Explanation is an entirely subjective affair. The only thing that all good explanations have in common is a feeling of understanding that they generate in the listener.' Discuss.
7. What are laws of nature? Are they independent of us?
8. 'Although no philosophical account of the confirmation of theories by evidence is fully satisfactory, some accounts are more satisfactory than others.' Discuss in relation to TWO of the following accounts: (a) Hypothetico-deductivism, (b) Hempel's account, (c) Explanationist accounts, (d) Bayesian accounts.
9. EITHER (a) What role, if any, does probability play in providing an account of the rationality of science?

OR (b) What relation do chances have to frequencies?
10. Can quantum theory be considered complete?

END OF PAPER