

PHILOSOPHY TRIPOS Part II

Tuesday 29 May 2001

9 to 12

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 an either/or question, indicate the letter as well.

**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 **Either** (a) Is scientific realism shown to be untenable by the history of science?

 Or (b) What is structural realism? Does this brand of realism avoid the 'pessimistic induction'?
- 2 Can we make sense of the claim that many theories are, if not true, at least approximately true?
- 3 **Either** (a) 'The underdetermination of theory by data is a logical truism with no significance for serious debates about realism.' Discuss.

 Or (b) Is a scientific description of nature more a matter of coping than copying?
- 4 Is there reason to believe that radically different scientific theories are incommensurable?
- 5 In what sense does Thomas Kuhn's account allow that science is empirical?
- 6 Is a Bayesian theory of confirmation defensible?
- 7 Do all scientific explanations involve explanatory unification?
- 8 Must an adequate theory of laws invoke the theory of universals?
- 9 **Either** (a) How could a particle have absolute acceleration without having absolute position? What is the bearing of this question on debates about absolute space?

 Or (b) 'The metric structure of space is conventional, but its topology isn't.' Discuss.
- 10 Is the perspective of science one in which there is no past, present, or future?

END OF PAPER