

PHILOSOPHY TRIPOS Part IB

Wednesday 29 May 2002

9 to 12

Paper 5

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 Does finding something which is neither A nor B ever confirm that all As are Bs?
- 2 'That falsification is easier than verification may be a logical principle, but the asymmetry largely disappears in scientific practice.' Discuss.
- 3 **Either** (a) How far is theory choice in physical science governed by values rather than facts? Does science thereby lack objectivity?
- Or** (b) Are the social sciences value laden in a way that the physical sciences are not?
- 4 Is observation more than the first thought that comes into your head, under particular causal circumstances?
- 5 How do theoretical terms get their meanings?
- 6 Why, if at all, do we need to understand theories as more than 'just so' stories that are useful fictions that help us produce accurate predictions?
- 7 If you accept science's own explanation of things, does that make you a realist?
- 8 **Either** (a) Has the deductive-nomological account of explanation been refuted?
- Or** (b) Is explanation typically contrastive? Does it matter?
- 9 Do the laws of nature describe how things must behave?
- 10 **Either** (a) How should we understand the expression 'the probability that Prince Charles will live for over one hundred years'? Does this probability have a precise numerical value?
- Or** (b) Do the natural sciences require an objective notion of probability?

END OF PAPER