

PHILOSOPHY TRIPOS Part II

Thursday 1 June 2000

1.30 to 4.30

Paper 6

PHILOSOPHY OF SCIENCE

*Answer **three** questions only.*

- 1 Does the underdetermination of theory by data warrant anti-realism about scientific theories?
- 2 How, if at all, does the predictive success of science bear on the question whether we should believe that our best scientific theories are true or merely that they are empirically adequate?
- 3 Can the notion of a definitional extension explain what it is for one scientific theory to be reduced to another?
- 4 What degree of pessimism is justified by the 'pessimistic induction'?
- 5 What is a scientific explanation? How must it be related to what it explains?
- 6 How necessary are laws of nature?
- 7 Discuss the relationship between relative frequency and probability.
- 8 Is space a substance?
- 9 Is there room for 'temporal becoming' in special relativity? Does it matter?
- 10 Is time travel possible?

END OF PAPER