

**PHILOSOPHY TRIPOS Part II**

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Thursday 9 June 2005

9 to 12

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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.*

**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     **Either**    (*a*)    'If you can spray them, they are real' (HACKING). Are they?  
      **Or**        (*b*)    Is Fine's 'Natural Ontological Attitude' coherent? Does it  
                  represent a revolutionary approach to understanding science?
- 2     Is arguing that a theory is likely to be true because it is empirically successful  
      any better than arguing that my lottery ticket is likely to be a winner because  
      the first two of its six numbers have come up?
- 3     What sense can we make of the claim that one false theory is nearer the truth  
      than another?
- 4     What is the best sense you can give to the Kuhnian claim that theories before  
      and after a scientific revolution are incommensurable? Is the claim thus  
      understood true?
- 5     **Either**    (*a*)    Are laws of nature in any sense necessary?  
      **Or**        (*b*)    Is the Ramsey-Lewis account of laws the best 'Humean'  
                  account?
- 6     When, if ever, should we seek to reduce one theory to another?
- 7     What, if anything, is wrong with the Bayesian account of theory  
      confirmation?
- 8     **Either**    (*a*)    Do the biological sciences feature a distinctive kind of  
                  explanation?  
      **Or**        (*b*)    'Explanation is unification.' Discuss.
- 9     Does physics raise insurmountable difficulties for the relationist view of  
      spacetime?
- 10    How far does our choice of a geometrical theory of the world depend on  
      adopting arbitrary conventions?
- 11    In what sense, if any, does quantum mechanics need an interpretation?
- 12    What is the philosophical significance of Bell's Theorem?

END OF PAPER