PHILOSOPHY TRIPOS      Part II

Friday 23 May 2003        1.30 to 4.30

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 What is structural realism? Does it provide an adequate response to the pessimistic induction?

2 What sense, if any, can we make of the idea of a theory's being approximately true?

3 When, if at all, are rival theories incommensurable? Does it matter if they are?

4 Should we believe our best theories or merely accept them as being empirically adequate?

5 What is the strongest argument against Bayesian confirmation theory? Does the Bayesian have a satisfactory reply?

6 Either (a) Does explanation involve unification?  
Or (b) What makes for a good functional explanation in biology?

7 Either (a) Do the laws of physics lie?  
Or (b) Are laws relations between universals?

8 What are natural kinds?

9 Either (a) Should we be substantivalists about space-time?  
Or (b) Can a relationist about space allow for the existence of incongruent counterparts?

10 In what sense, if any, is geometry conventional?

11 Critically assess the Copenhagen Interpretation of quantum mechanics.

12 Either (a) Discuss the EPR paradox and Bohr's response to it.  
Or (b) What is the significance of Bell's theorem?