PHILOSOPHY TRIPOS     Part IB

Monday 26 May 2008     09.00 to 12.00

Paper 2
LOGIC

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. Explain what is meant by the 'grammatical form' and the 'logical form' of an English sentence. Is one a guide to the other?

2. Expound a referential semantics for the quantifiers of classical logic. What makes the semantics referential rather than substitutional?

3. Either (a) Expound a natural deduction system for classical propositional logic. Is there any reason to think that one of the rules of the system has a different status from the others? If so, what?
   Or (b) What could motivate intuitionistic logic?

4. Either (a) Must a consistent axiom system have a model?
   Or (b) Can we think of the natural numbers as being implicitly defined by an axiom system?

5. Expound a semantics for the modal logic S4, showing in particular that the characteristic S4 axiom is sound for this semantics but that the S5 axiom is not.

6. Either (a) 'The external causal chain plays no explanatory role whatever in Kripke's account of personal names.' Discuss.
   Or (b) Is 'John' indexical?

7. 'Russell had a one-step, Frege a two-step, semantic theory.' What were Russell and Frege disagreeing about? Who was right?

8. 'The meaning of a sentence is determined by the meanings of the words of which it is composed.' Discuss.

9. What attitude ought I to have towards the inhabitants of other possible worlds than my own?

10. Is a community free to adopt whatever linguistic conventions it pleases?

END OF PAPER