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