

**PHILOSOPHY TRIPOS Part IB**

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Friday 26 May 2017

09.00 – 12.00

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Paper 2

LOGIC

*Answer **three** questions only.*

*Write the number of the question at the beginning of each answer. If you are answering the 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**

- 2 -

1. Are definite descriptions 'incomplete' and names 'complete' in Russell's or any other sense?
2. Are any two things necessarily distinct?
3. Describe a semantics in terms of Kripke models for the modal logic KTB. Provide an axiomatization of KTB and argue that every axiom and rule is true/valid according to your semantics.
4. Explain and illustrate the notion of logical form.
5. EITHER: (a) 'The meaning of a statement consists in its method of verification.' Can the statement 'All ravens are black' be meaningful, according to this theory?  
OR: (b) Must the notion of verification be compositional?
6. State and prove the completeness of a natural deduction system for propositional logic.
7. Is there any more to understanding truth than understanding that 'p' is true iff p?
8. Is analyticity a coherent concept?
9. Is the causal theory of reference compatible with a theory of sense?
10. Does Euclidean geometry have a truth-value?

**END OF PAPER**