

UNIVERSITY OF LONDON
MPHIL EXAMINATIONS
for internal students

Philosophy of Science

10:00-13:00, Tuesday 14th May, 2002

Candidates should answer THREE of the following questions.

Please avoid overlap in your answers.

1. 'What suffices for explanation also suffices for prediction and vice versa.'
Discuss.
2. Most theories accepted before 1900, despite being in many cases very successful, have turned out to be false. What consequences should we draw from this concerning scientific realism?
3. What is meant by an *objective* interpretation of probability? Give an exposition and assessment of *one* such objective interpretation.
4. Can a line, even a vague one, be drawn between what is observational and what is theoretical?
5. 'All science is physics.' Discuss
6. How, if at all, is the notion of falsification relevant to the issue of how scientific and non-scientific theories are best distinguished?

PLEASE TURN OVER

7. Give an exposition of subjective Bayesianism, assessing its claims to provide an adequate account of scientific reasoning.
8. Can cause be defined in terms of probability?
9. Are scientific theories sometimes incommensurable with their successors?
10. Quantum mechanics seems to show that electrons are both waves and particles. But the suggestion that they are both is a contradiction. How, if at all, can this problem be resolved?
11. Can the view that space is absolute still be defended?
12. Is it legitimate to try to explain aspects of human society and human psychology in terms of Darwinian evolution?

END OF PAPER