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Monday 5 June 2006

1.30–4.30 pm

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## HISTORY AND PHILOSOPHY OF SCIENCE (1)

### History of Science

**Before you begin read these instructions carefully:**

Answer **one** question from **Section A** and **three** questions chosen from **Section B**

*Begin each answer on a separate sheet.*

*Write legibly and on only **one** side of the paper.*

*Answers must be tied up in separate bundles, marked 1, 2, 3, etc. according to the number of the question.*

*Attach a completed coversheet to each bundle and complete a master coversheet listing all questions attempted. It is essential that you write your examination number and **not** your name on the cover sheet and on **each** bundle.*

### **Stationery Requirements:**

Script paper, blue coversheets, yellow master coversheet, and tags.

<p>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.</p>
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History of Science

SECTION A

- 1 How has the concept of scientific evidence changed since 1500?
- 2 Does science need heroes?

SECTION B

- 3 **Either** (a) 'All science, when it ceases to be merely descriptive, is basically a study of motion and change.' Is this an accurate description of natural philosophy in early modern Europe?  
**Or** (b) What roles did craftsmen and magicians play in the study of nature before 1800?
- 4 **Either** (a) What was new about medicine between 1500 and 1700?  
**Or** (b) 'In the decades around 1800 medicine had to become scientific in order to progress.' Discuss.
- 5 According to Cartesians, 'The mind has no sex'. Discuss.
- 6 Was there a 'second scientific revolution' in Europe between 1789 and 1848?
- 7 What was the relationship between biology and political economy in nineteenth-century Britain?
- 8 Did the microscope replace the stethoscope in nineteenth-century medicine?
- 9 Why did the special theory of relativity emerge from the problem of simultaneity that confronted physicists and engineers in late nineteenth-century Europe?
- 10 Account for the changing scale of science in the twentieth century.
- 11 How, after World War II, did a new politics of race and a new biomedicine change sickle-cell anaemia?

PLEASE TURN OVER/

12. Evaluate the historical significance of psychiatric drug technologies for understanding the 'normal' person.

END OF PAPER

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Tuesday 6 June 2006

9.00 am – 12.00 pm

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## HISTORY AND PHILOSOPHY OF SCIENCE (2)

### Philosophy of Science

**Before you begin read these instructions carefully:**

Answer **one** question from **Section A** and **three** questions chosen from **Section B**.

*Begin each answer on a separate sheet.*

*Write legibly and on only **one** side of the paper.*

*Answers must be tied up in separate bundles, marked 1, 2, 3, etc. according to the number of the question.*

*Attach a completed coversheet to each bundle and complete a master coversheet listing all questions attempted. It is essential that you write your examination number and **not** your name on the cover sheet and on **each** bundle.*

### **Stationery Requirements:**

Script paper, blue coversheets, yellow master coversheet, and tags.

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Philosophy of Science

SECTION A

- 1 'Scientists need philosophy like birds need ornithology.' Discuss.
- 2 'The success of scientific theories suggests that they are true, but the history of scientific theories suggests that they are false.' Discuss.

SECTION B

- 3 **Either** (a) Can we defeat epistemological scepticism without giving up the Closure Principle for Knowledge?  
**Or** (b) Could induction be both unjustifiable and rational?
- 4 **Either** (a) In what sense do causes 'bring about' their effects?  
**Or** (b) Are laws merely patterns?
- 5 What is the difference between 'knowing that' and 'understanding why'?
- 6 Why are experimenters' skills of interest to the sociology of knowledge?
- 7 Are the 'paradoxes of confirmation' really paradoxical?
- 8 **Either** (a) Is negative evidence more powerful than positive evidence?  
**Or** (b) Is the moral to draw from Kuhn that science is irrational or that rationality is not what we thought it was?
- 9 Is Intelligent Design Theory good science, bad science, or no science at all?
- 10 Is it possible to have value-free science when science is funded by government and industry?

END OF PAPER