
Monday, 2 June 2014, 13:30–16:30

Paper HPS/1**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 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 question number.

*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.

You may not start to read the questions printed on the subsequent pages of this question paper until instructed to do so.

SECTION A

1. 'The histories of the various sciences are more similar than different.' Discuss.
2. What roles have religious beliefs played in the sciences?

SECTION B

3. How and why did molecules come to play such prominent roles in the biological and biomedical sciences?
4. Should we characterise scientific research in the later 20th century as uniquely 'Big'?
5. What was more important for modern physics, the work of Einstein, or the Manhattan Project?
6. How did industrialisation shape science before 1900?
7. How and why did the science of disease change between the late 18th and the early 20th centuries?
8. How did the scientific career develop in France, Britain and the German-speaking lands in the first half of the 19th century?
9. In what ways did exploration and global travel contribute to the transformation of the sciences in the 18th and 19th centuries?
10. How did natural philosophers' understanding of electricity change during the 18th century?
11. Was there a scientific revolution in 17th-century Europe?
12. How did early modern medical practitioners define the differences between men and women?

END OF PAPER

Tuesday, 3 June 2014, 09:00–12:00

Paper HPS/2**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 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 question number.

*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.

You may not start to read the questions printed on the subsequent pages of this question paper until instructed to do so.

SECTION A

1. What, if anything, makes science a privileged path to knowledge?
2. Is there one scientific method for all branches of science?

SECTION B

3. Who should decide what scientists research?
4. Does Kuhn or Popper give a more accurate description of science?
5. When, if ever, is it justifiable for scientists to make *ad hoc* hypotheses?
6. How should causation be distinguished from correlation?
7. Do observations of green emeralds confirm the hypothesis that all emeralds are grue?
8. Are there any differences between social science and natural science?
9. What is a gene?
10. Does Hacking's "experimental realism" give us grounds to trust what modern physics says about unobservable entities?
11. Can induction be justified?
12. Should social and moral values have a role in the acceptance of scientific hypotheses?

END OF PAPER