

NATURAL SCIENCES TRIPOS Part III

Questions released at 12 noon on Monday 9 February 2015
Answers to be submitted by 12 noon on Monday 16 February 2015

HISTORY AND PHILOSOPHY OF SCIENCE

Before you begin read these instructions carefully:

*Students taking Natural Science Tripos Part III **History and Philosophy of Science** should answer **two** questions from the following list of eight questions.*

The two essays should be submitted in duplicate to the Departmental Office by 12 noon on Monday 16 February 2015. Students are also required to upload their examinable work as .doc or .rtf files to the HPS MPhil/Part III site on CamTools. The examiners may use this to check word count or derivative passages.

*Essays should be marked 1, 2, 3, etc. according to the number of the question attempted. The essays should be typed on only **one** side of the paper and each essay should be firmly stapled.*

Hand in your essays with a completed submission form (downloadable from CamTools) listing the number of each question attempted.

NST Part III History and Philosophy of Science

Set essays

*Answer any **two** questions. Answers should not exceed 2,500 words each.*

1. How has the production and testing of pharmaceuticals changed since 1900?
2. Darwin's statements about racial and gender inequality occupy only a small part of the *Descent of Man*, and are often said to be ambiguous and contradictory. Why are they historically significant?
3. 'It was outside "the West" that the concept of "Western science" was itself first developed.' (Marwa Elshakry). Should 'western science' and 'modern science' be treated as equivalent terms by historians of science?
4. How (or by what measures) can one assess the success of an experimental system?
5. In your view, in which ways has scientific knowledge improved over the centuries? Build on the work of Kuhn, Popper, or any other authors as appropriate.
6. Can false models reveal true natures of phenomena? If so, how?
7. All good explanations are mechanistic explanations. Do you agree?
8. What is the most convincing rebuttal of Rudner's claim that the scientist *qua* scientist makes value judgments?

END OF PAPER