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.

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.
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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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