

**Specimen paper for 2012**

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

**SECTION A**

1. If you were writing a book entitled the *Origins of Modern Science*, which historical period would it be about?
2. In what ways do earlier centuries' conceptions of the scientific role continue to inform our understanding of what it means to be a scientist in the twenty-first century?

**SECTION B**

3. Compare and contrast the ways in which knowledge of the natural world was made by physicians and natural philosophers in early modern Europe.
4. Did experimental philosophy displace the magical and occult arts in the seventeenth century?
5. What was the role of novel instrumentation in the development of electricity and of chemistry during the eighteenth century?
6. Discuss this extract from a 1971 advertisement for the *Financial Times*: 'Isaac Newton is the British physicist linked forever in the schoolboy mind with an apple that fell and bore fruit throughout physics.'
7. What differences did laboratories make to the development of the sciences during the nineteenth century? Discuss in relation **EITHER** to the physical sciences **OR** to the life sciences.
8. Was Charles Darwin a professional scientist?
9. Did Alfred Wegener's theory of continental drift initiate a scientific revolution?
10. What effect did the discovery of the structure of DNA have on the biological sciences?
11. 'It is of no significance whatsoever *where* nineteenth-century medical science was done. What matters is *how*.' Discuss.
12. 'Psychiatry came of age when it was taken over by the drug companies.' Discuss.

**END OF PAPER**

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

**SECTION A**

1. When theory and observation clash, is it always theory that is to blame?
2. In which senses does science make progress, not merely changes?

**SECTION B**

3. Is it inevitable that scientists should engage in induction?
4. What is the most significant point of contrast between Popper's and Kuhn's views on scientific method?
5. Was Feyerabend correct to call Lakatos a 'fellow anarchist'?
6. Could a false theory or model be successful? What are the implications of this for the debate on scientific realism?
7. Discuss a major case of theory-change in science which exhibits Kuhnian incommensurability, or argue that there are no such cases.
8. Should metaphysics change according to the latest development in science? Discuss with reference to an example from the physical sciences.
9. Is measurement theory-laden? How does that issue relate to the Duhem–Quine thesis?
10. 'Evolutionary theory is not scientific because it is no more than a tautology.' Discuss.
11. Are social and natural science fundamentally different?
12. Is the precautionary principle unscientific?

**END OF PAPER**