

THE UNIVERSITY *of York*

Degree Examination 2007

ENVIRONMENT DEPARTMENT

**BSc Environment, Economics & Ecology
BSc Environmental Science
Part 2**

SUSTAINABLE USE OF SOIL AND WATER RESOURCES

Time allowed: **two hours**

Answer **ANY TWO** questions

*Pay adequate attention to spelling, punctuation and grammar, so that your answers
can be readily understood*

1. Explain why it is so difficult to define what “a fertile soil” is, and hence why it is difficult for environmental managers to monitor changes in soil quality over the long-term.
2. “If soil pH is maintained at a desired value, the availability of plant nutrients will also be maintained”. Discuss critically the strengths and weaknesses of this statement.
3. Discuss the biogeochemical cycling of nitrogen, using a sketch or sketches to illustrate key principles, and explain its importance to soil sustainability in natural and managed ecosystems.
4. Would large-scale development of organic agriculture be a positive step towards providing a sustainable food supply in the UK, or is it reducing the use of more environmentally friendly techniques in traditional, high input agriculture? Justify your conclusion.