

## ENTRANCE SCHOLARSHIP EXAMINATION JANUARY 2019

## **Environmental Science**

## Time Allowed - 1.5 hours

## **Candidates should answer TWO questions**

- 1. Describe and explain how the Earth's biota affects the chemical composition of the atmosphere.
- 2. Using examples explain how humans are affecting biodiversity and outline the importance of biodiversity conservation initiatives.
- 3. Outline the causes and explain the effects of anthropogenic climate change.
- 4. What is the thermohaline ocean circulation? Explain its role in redistributing energy and regulating climate.
- 5. What is hydraulic fracturing (fracking)? Outline the arguments for and against fracking as part of the UK's future energy supply.
- 6. Describe the main components of the global nitrogen cycle and explain the ways in which humans are affecting it.
- 7. Outline some of the causes, processes and consequences of soil degradation.
- 8. Describe the main ways in which water quality in rivers is affected by pollution and outline the options for water quality treatment.