

**BIRKBECK COLLEGE  
(University of London)**

**BSc EXAMINATION**

**SCHOOL OF SCIENCE**

**DEPARTMENT OF EARTH AND PLANETARY SCIENCE**

**TECTONIC GEOMORPHOLOGY**

**EASC066H6**

**15 Credits**

**Tuesday 31 May 2016**

**10:00 -13:00**

**INSTRUCTIONS**

Answer question one in section A and TWO questions from section B, using diagrams and examples to support your answers

Allow 1 hour for each question

All questions carry equal marks

## SECTION A

1. Give brief accounts of **THREE** of the following:

- a) The amount of erosion required to reduce the elevation of an elevated land surface by 1 km;
- b) differential and trigonometric leveling;
- c) isostasy according to Pratt and Airy;
- d) applications of the Schmidt Hammer;
- e) lichenometry.

## SECTION B

**Answer TWO of the following questions:**

- 2. Describe how rivers can be used to detect and interpret landscape change.
- 3. Explain why denser rocks may occupy higher elevations in a landscape.
- 4. Discuss why landscape evolution studies of rift zones need to account for spatial and temporal differences in the effective thickness of the elastic plate ( $T_e$ ).
- 5. Discuss how climate -related processes might influence the forces driving plate motion and the rate of plate convergence.