

**BIRKBECK COLLEGE
(University of London)**

BSc EXAMINATION

SCHOOL OF SCIENCE

Department of Earth and Planetary Sciences

FORENSIC GEOLOGY

EASC074H5

15 credits

Wednesday 20 May 2015

10.00 – 13.00

INSTRUCTIONS

Answer THREE questions.

ALL QUESTIONS CARRY EQUAL MARKS.

1. Define the term 'forensic geoscience'. Give a brief history of the development of forensic geoscience, citing in your answer at least two examples of famous cases in which forensic geoscience methods have been applied.
2. Describe the X-ray diffraction (XRD), petrographic microscope and heavy mineral separation techniques for examining rock and mineral samples from crime scenes. Describe a case where the study of rocks and / or minerals has been used to support forensic investigations.
3. Explain how sediment samples are collected and examined by forensic geologists as evidence in crime scenes, and how sediment evidence is reported.
4. Describe the main morphological features and living environments of diatoms. Describe a case where the study of diatoms has been used to support forensic investigations.
5. Describe four types of crime that paint can be associated with. Describe a case where the study of paint has been used to support forensic investigations.
6. Explain how seismic and magnetic surveys are used in forensic investigations.