BIRKBECK COLLEGE
(University of London)

BSc EXAMINATION

SCHOOL OF SCIENCE

DEPARTMENT OF EARTH AND PLANETARY SCIENCES

FORENSIC GEOLOGY

EASC074H5

15 CREDITS

Wednesday 11 May 2016

10:00 -13:00

INSTRUCTIONS

Answer THREE questions.

ALL QUESTIONS CARRY EQUAL MARKS.

1. Describe the early (late 19th century to mid-20th century) development of forensic geoscience.

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 the accuracy and precision of geochemical analyses are determined. Describe, using examples, the main types of graphs that are used to report geochemical data.

4. Explain why pollen is studied by forensic palynologists as evidence in crime scenes. Describe how pollen evidence should be reported and interpreted.

5. Describe the main components of paint. Explain how visual examination and Raman spectroscopy can be used to characterise paint samples from crime scenes.

6. Explain how seismic and ground penetrating radar surveys are used in forensic investigations.