

**BIRKBECK COLLEGE
(University of London)**

BSc EXAMINATION

SCHOOL OF SCIENCE

Earth's Resources and Raw Materials

EASC048H6

15 credits

Monday 4 May 2020 14:00-16:30

Time allowed: 2 hours 30 minutes

INSTRUCTIONS

Answer THREE questions from the six questions provided.

ALL QUESTIONS CARRY EQUAL MARKS.

Candidates must NOT bring any supplementary material into the examination.

Calculators are NOT permitted.

1. Describe the geological features of volcanogenic massive sulphide deposits and discuss how these features reflect their mode of formation.
2. Describe the formation of primary diamond deposits and explain the use of 'indicator minerals' in diamond deposit exploration.
3. Give an account of the major types of Rare Earth Element (REE) deposits and discuss their association with light and heavy REE ore mineralisation.
4. Describe the BMD, NMD and AMD types of fluid mine wastes. Using chemical equations, discuss how AMD forms and what types of liquid and solid products AMD can produce.
5. Compare and contrast the geological features and modes of banded iron formations (BIFs) and Phanerozoic ironstone deposit.
6. Give an account of the major types of gold deposits and discuss their formation.