

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD DEGREE OF
BACHELOR OF SCIENCE IN ECOTOURISM**

NARE 326: MINERALOGY AND MINERAL EXPLOITATION

STREAMS: NARE

TIME: 2 HOURS

DAY/DATE: THURSDAY 9/04/2020

8.30 A.M - 10.30 A.M.

INSTRUCTIONS

- Answer all Questions in Section A and any Two questions in Section B.
- Do not write anything on the question paper

SECTION A (30 MARKS)

Q.1. Define the following terms as used in mineralogy.

- | | |
|------------------------|----------|
| (a) Mineral | [1 Mark] |
| (b) Birefringence | [1 Mark] |
| (c) Siderophile | [1 Mark] |
| (d) Bonds | [1 Mark] |
| (e) Crystal morphology | [1 Mark] |
| (f) Euhedral | [1 Mark] |

Q.2. Explain various criteria used in defining mineral. [5 Marks]

Q.3. Define the property of streak in minerals and contrast its use in mineral identification with colour. [6 Marks]

Q.4. List the miller indices of all the faces of an octahedron. [6 Marks]

Q.5. Explain with examples how minerals are named. [4 Marks]

Q.6. List various symmetry operations in mineral. [3 Marks]

SECTION B 40 MARKS

Q.7. (a) Discuss the general environments where rocks and mineral ores are formed or modified. [10 Marks]

(b) Discuss various properties of minerals. [10 Marks]

Q.8. (a) List the Mohs scale of hardness. [10 Marks]

(b) Discuss various principle bonds used in mineralogy. [10 Marks]

Q.9. (a) Discuss using examples the contribution of minerals to the Kenyan economy. [20 Marks]

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