

BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE
DEPARTMENT: NATURAL RESOURCES
PROGRAMME: BSc NATURAL RESOURCES MANAGEMENT

COURSE CODE: NRM 120: INTRODUCTION TO GEOLOGY AND MINERAL RESOURCES (4)

DURATION: 2 HOURS

TOTAL MARKS: 70

JUN 2024

INSTRUCTIONS

Answer Three questions out of the following five questions. You must answer question One from SECTION A and Two questions from SECTION B.

SECTION A (COMPULSORY)

1. (a) Define the following terms:

- | | |
|--------------------|-----------|
| (i) Gemstone, | [2 Marks] |
| (ii) clastic rock, | [2 Marks] |
| (iii) lava and | [2 Marks] |
| (iv) hardness. | [2 Marks] |

(b) State the five major geological systems of Zimbabwe. [5 Marks]

(c) Describe the stages of the mining cycle. [10 Marks]

(d) Describe the following types of mineral resources:

- | | |
|---------------------|-----------|
| (i) Metallic | [3 Marks] |
| (ii) structural and | [2 Marks] |
| (iii) industrial | [2 Marks] |

SECTION B

2. Examine the contribution of mining to an environmental problem you have studied. [20 Marks]

3. Define and explain the importance of the following properties in mineral identification:

(a) Colour,

[4 Marks]

(b) streak,

[4 Marks]

(c) magnetism,

[4 Marks]

(d) radioactivity and

[4 Marks]

(e) specific gravity.

[4 Marks]

4. Discuss the relationship between the major rock types and distribution of mineral wealth in Zimbabwe.

[20 Marks]

5. Describe the following:

(a) Structure of the earth

[8 Marks]

(b) Rock cycle.

[12 Marks]

END OF PAPER