BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCES

DEPARTMENT OF NATURAL RESOURCES

BACHELOR OF SCIENCE IN NATURAL RESOURCES MANAGEMENT HONOURS DEGREE

NRM 416 / NRM 205 / AGC 425

JUN 2024

LAND MANAGEMENT AND CONSERVATION

2 HOURS 70 MARKS

INSTRUCTIONS TO CANDIDATES

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

**SECTION A (COMPULSORY) [30 marks]**

1. (a) Define the following terms:

| | | |
|---|---|---|
| (i) | Land management | **[2 Marks]** |
| (ii) | Erosivity | **[2 Marks]** |
| (iii) | Land conservation | **[2 Marks]** |
| (iv) | Rill erosion | **[2 Marks]** |
| (v) | Graded contours | **[2 Marks]** |

(b) Explain the rationale behind the design and implementation of the standard contour ridge **[10 Marks]**

(c) Describe the deflation mechanism in wind erosion **[10 Marks]**

**SECTION B [40 Marks]**

2. Discuss the potential of conservation agriculture to climate change adaptation **[20 Marks]**

3. Explain the causes of land degradation in native reserves during the colonial era (in then Rhodesia) and then highlight which methods were used to address the problem. **[20 Marks]**

4. Describe the *Fanya juu* and explain its merits and demerits as a soil and water conservation strategy **[20 Marks]**

5. Describe the factors that influence soil erosion. **[20 Marks]**

**END OF PAPER**