

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE

DEPARTMENT OF NATURAL RESOURCES BSc. NRM Part II Examination

ES 203

LAND MANAGEMENT AND CONSERVATION

2 HOURS (70 Marks)

INSTRUCTIONS

Answer **three** questions out of the **five** questions. You must answer question **one** from SECTION A and any **two** from SECTION B.

SECTION A [30 marks]

1. (a) Define the following terms:

- (i) saltation, [2 marks]
- (ii) tied contour, [2 marks]
- (iii) erosivity, [2 marks]
- (iv) carbon sequestration, [2 marks]
- (v) pot-holing. [2 marks]

(b) Give details of how conservation agriculture contributes to the following:

- (i) biodiversity conservation [3 marks]
- (ii) climate change mitigation [4 marks]
- (iii) soil conservation [4 marks]
- (iv) water conservation [4 marks]
- (v) climate change adaptation [5 marks]

SECTION B [40 marks]

2. (a) Describe the structure of the USLE model [6 Marks]
- (b) Outline the shortfalls of USLE [6 Marks]

(c) Describe the demerits of the revised USLE model (RUSLE)

[8 Marks]

3. Analyze the influence of Zimbabwean land policies in the colonial era on land management and conservation.

[20 Marks]

4. Discuss the constraints to adoption of conservation agriculture in Zimbabwe.

[20 marks]

5. Discuss the effects of soil erosion on the aquatic environments.

[20 Marks]

END OF PAPER