

**BINDURA UNIVERSITY OF SCIENCE EDUCATION**  
**FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE**  
**DEPARTMENT OF AGRICULTURE ECONOMICS AND EXTENSION**  
**MSc FOOD SECURITY AND SUSTAINABLE AGRICULTURE**  
**MFS 510: FOOD SECURITY AND CLIMATE CHANGE**

**DURATION: 3 HOURS**

**TOTAL MARKS: 100**

**INSTRUCTIONS TO CANDIDATES**

 **JUN 2023**

**ANSWER QUESTION ONE IN SECTION A and ANY OTHER TWO QUESTIONS FROM SECTION B.**

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**SECTION A (COMPULSORY)**

1. (a) Climate change affects food security in both developed and developing nations. Discuss the effects of climate change on the four dimensions of food security. **[25 Marks]**  
  
(b) Explain technological interventions that can be used by smallholder farmers to adapt and mitigate climate change. **[25 Marks]**

**SECTION B**

2. Discuss how ecosystem based adaptation can support food security. **[25 Marks]**
3. Climate change can seriously affect the pricing of food. Discuss. **[25 Marks]**
4. Outline how existing policies and their implementation affect food and nutritional security under a changing climate. **[25 Marks]**

**END OF PAPER**