



**SECTION A [30 MARKS]**

**Answer ALL questions from this section**

1. (a) Explain the meaning of the following terms: **[3 Marks]**
  - I. Agriculture
  - II. Biotechnology
  - III. Climate change
- (b) Highlight the role played by agriculture as an industry in Kenya's economy. **[7 Marks]**
  
2. (a) How does climate and soil influence agriculture? **[4 Marks]**
- (b) Formulate a crop rotation program with FOUR crops of your choice explaining the choice and sequence of each crop **[6 Marks]**
  
3. (a) Suggest ways you would use to minimize post-harvest losses in horticultural crops within your farm. **[5 Marks]**
- (b) What methods would you use to prevent soil fertility losses from small scale farms? **[5 Marks]**

**SECTION B [40 MARKS]**

**Answer any TWO QUESTIONS in this Section.**

4. Suppose you are an agricultural extension officer working in a community that has been experiencing severe pest infestation on crops for years. Design an Integrated Pest Management (IPM) strategy you would use to reduce the pest menace on farmers' fields **[ 20 Marks]**
  
5. Describe the main cropping systems practiced in Kenya clearly stating their advantages and disadvantages. **[20 Marks]**
  
6. (a) Explain why you would recommend a Fresian dairy animal to a livestock farmer instead of his local breed in Kenya. **[5 Marks]**
- (b) Outline the role played by biotechnology in agricultural productivity. **[15 marks]**

