

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE

AGC 220

Department of Crop Science

BSc Agricultural Science (Honours) Crop Science Part 11 Examination Principles of Crop Production

3 HOURS (100 Marks)

INSTRUCTIONS

Answer any **FOUR** questions. Each question carries **25 marks**.

1. Describe the following land tenure systems in Zimbabwe
 - a) Communal. [5 marks]
 - b) Old resettlement. [5 marks]
 - c) Large scale commercial. [5 marks]
 - d) A1 [5 marks]
 - e) A2 [5 marks]
2. a) Describe the following methods of nutrient deficiency diagnosis
 - i) Soil analysis [5 marks]
 - ii) Leaf analysis [5 marks]
 - iii) Deficiency symptoms [5 marks]
b) Discuss the various methods of fertilizer application using named fertilizer examples. [10 marks]
3. Discuss the long term demerits of tillage and how conservation agriculture avoids these effects on crops. [25 marks]
4. Describe the various methods of weed classifications used in agriculture. [25 marks]
5. Discuss the following systems of crop production using name Zimbabwean examples
 - a) Multiple cropping. [5 marks]
 - b) Relay cropping. [5 marks]
 - c) Monoculture. [5 marks]
 - d) Intercropping. [5 marks]
 - e) Shifting cultivation. [5 marks]
6. a) Define the following terms
 - i) Wilting point. [3 marks]
 - ii) Field capacity. [3 marks]
 - iii) Available water capacity. [3 marks]
 - iv) Irrigation interval. [3 marks]

v) Allowable moisture depletion.

[3 marks]

b) Discuss the merits and demerits of using retained seeds.

[10 marks]

END OF PAPER