



**B O A R D O F S T U D I E S**  
NEW SOUTH WALES

**2007**

**HIGHER SCHOOL CERTIFICATE  
EXAMINATION**

# Agriculture

## Paper 2

### **General Instructions**

- Paper 2 should be attempted only by students who have studied Electives
- Reading time – 5 minutes
- Working time – 1 hour
- Write using black or blue pen
- Board-approved calculators may be used

### **Total marks – 30**

- Attempt TWO questions from Questions 1–6
- Allow about 30 minutes for each question

**Total marks – 30**

**Attempt TWO questions from Questions 1–6**

**Allow about 30 minutes for each question**

Answer each question in a SEPARATE writing booklet. Extra writing booklets are available.

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|   | <b>Marks</b> |
|---|--------------|
| <b>Question 1 — Agribusiness (15 marks)</b>   |              |
| (a) Outline the choices available for a farm business to obtain finance for its operations.   | <b>3</b>     |
| (b) Explain how information or data was collected in a study that determined the impact of a large rural business on the agricultural industries in which it is involved.             | <b>4</b>     |
| (c) Discuss various marketing options available for a particular agricultural product.  | <b>8</b>     |
| <b>Question 2 — Animal Management (15 marks)</b>  |              |
| (a) Outline ONE technique used by farmers to manage reproduction in farm animals.   | <b>3</b>     |
| (b) Explain how the results were analysed and presented in a study of a current technique/technology which is advancing productivity in animal production systems.                    | <b>4</b>     |
| (c) Discuss implications associated with the successful introduction of new technologies into animal production systems.  | <b>8</b>     |
| <b>Question 3 — Horticulture (15 marks)</b>   |              |
| (a) Outline a management technique used to increase the level of output in a horticultural production system.   | <b>3</b>     |
| (b) Explain factors a researcher may have considered when undertaking a study of one technological innovation aimed at improving productivity in a particular horticultural industry. | <b>4</b>     |
| (c) Discuss the use of plant propagation techniques in terms of plant physiology.   | <b>8</b>     |

**Question 4 — Innovation and Diversification (15 marks)**

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|-----|--|----------|
| (a) | Outline the effect ONE environmental factor may have on an alternative agricultural production system or technology.   | <b>3</b> |
| (b) | Explain the research methodology that was used in a study of the development and implementation of one alternative agricultural production system or technology. | <b>4</b> |
| (c) | Discuss ways to overcome possible social barriers to the development of an alternative agricultural system or enterprise.  | <b>8</b> |

**Question 5 — Plant Management (15 marks)**

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|-----|--|----------|
| (a) | Outline the relationship between cellular anatomy and the function of ONE major plant organ.   | <b>3</b> |
| (b) | Explain the research methodology that was used in a study of the role of plant breeding, or related research, in advancing productivity of plant production systems. | <b>4</b> |
| (c) | Discuss the use of plant hormones in manipulating plant production systems.  | <b>8</b> |

**Question 6 — Sustainable Land and Resource Management (15 marks)**

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|-----|--|----------|
| (a) | Outline the purpose of the Australian Land Capabilities system.  | <b>3</b> |
| (b) | Explain how a particular finding from a study of innovative technologies or practices that are assisting with the conservation and efficient use of water, has influenced agricultural production systems. | <b>4</b> |
| (c) | Discuss the use of whole-farm planning in achieving sustainability in agriculture.   | <b>8</b> |

**End of paper**

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