



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

2010

**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.

Question 1 — Agribusiness (15 marks)

- (a) Describe a technique that can be used to analyse the financial situation of a farm. **3**
- (b) Assess a marketing option or selling system that is available for a particular agricultural product. **4**
- (c) Discuss the impacts of a large agricultural corporation or company on the biological and physical components of the industry. **8**

Question 2 — Animal Management (15 marks)

- (a) Name an animal breeding program and outline the role of objective measurement within the program. **3**
- (b) Explain how chemical resistance may occur in target organisms when managing animal pests or disease. **4**
- (c) Explain how knowledge of natural animal reproductive hormones assists farmers to manipulate reproductive cycles in animal production systems. **8**

Question 3 — Horticulture (15 marks)

- (a) Name a horticultural system and describe the production cycle within the system. **3**
- (b) Explain the influence of changing international markets on post-harvest handling in horticulture. **4**
- (c) Analyse the components of a horticultural system that can be managed to balance economic viability and environmental sustainability. **8**

Question 4 — Innovation and Diversification (15 marks)

- (a) How has the introduction of a new production system or technology had an impact on farm management? **3**
- (b) Why is there a need for research prior to the full implementation of alternative enterprises? **4**
- (c) Evaluate techniques that may be used to market an innovation in Australian agriculture. **8**

Question 5 — Plant Management (15 marks)

- (a) Outline the anatomy and function of a type of cell found in plant leaves. **3**
- (b) Explain the role of plant hormones in fruit production. **4**
- (c) Analyse the process of photosynthesis and how management of the inputs to this process may affect plant growth. **8**

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

- (a) Explain, using an example, how a farm practice can affect the level of soil acidification. **3**
- (b) How do governments intervene in land and water management in agricultural systems? **4**
- (c) Compare the cause and management of both dryland and irrigation salinity. **8**

End of paper

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