

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

2006

**HIGHER SCHOOL CERTIFICATE
EXAMINATION**

Primary Industries

General Instructions

- Reading time – 5 minutes
- Working time – 2 hours
- Write using black or blue pen
- Board-approved calculators may be used
- Write your Centre Number and Student Number at the top of pages 9, 13, 15, 17 and 19

Total marks – 80

Section I Pages 2–7

15 marks

- Attempt Questions 1–15
- Allow about 15 minutes for this section

Section II Pages 9–20


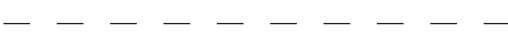

35 marks

- Attempt Questions 16–20
- Allow about 45 minutes for this section

Section III Pages 21–22

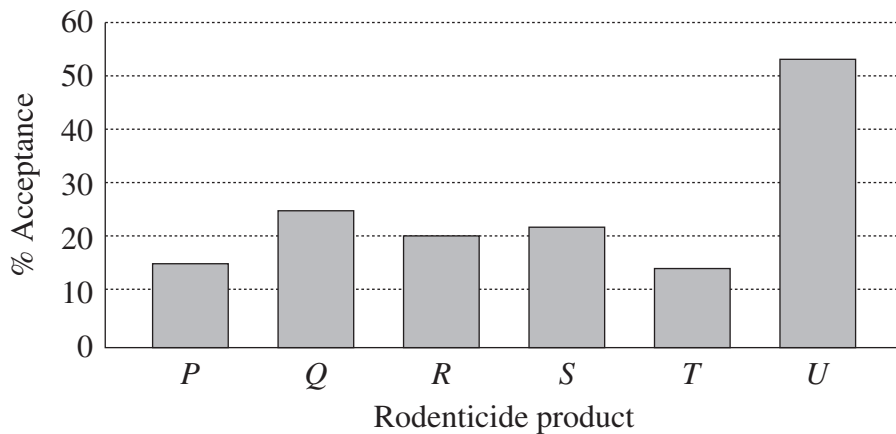
30 marks

- Attempt TWO questions from Questions 21–23
- Allow about 1 hour for this section

- 1 What is the most effective treatment for snake bite?
- (A) Apply a tourniquet
 (B) Suck the venom out
 (C) Apply a pressure immobilisation bandage
 (D) Wash the wound with water to dilute the venom
- 2 You come across a farm employee who has severed a finger. Which is the correct order of first aid response?
- 1 Elevate the limb
 2 Treat for shock
 3 Apply direct pressure to the wound
 4 Collect the amputated part, keep it dry, do not wash or clean it
- (A) 1 2 3 4
 (B) 3 1 2 4
 (C) 3 4 1 2
 (D) 4 3 2 1
- 3 Which meteorological symbol is used to indicate a warm front on a weather map?
- (A) 
 (B) 
 (C) W ——— W ——— W ——— W
 (D) 
- 4 What is the main purpose for investigating an agricultural workplace accident?
- (A) To include it in a safety manual
 (B) To find out who caused the accident
 (C) To determine what new safety equipment may be needed
 (D) To determine how similar accidents could be prevented in the future

- 5** Who is responsible for ensuring safe workplace procedures?
- (A) The employer
 - (B) The safety officer
 - (C) All persons in the workplace
 - (D) The Occupational Health and Safety (OHS) committee
- 6** Which is the most appropriate knot for rejoining a broken strand of plain wire?
- (A) Bullwire
 - (B) Figure of eight
 - (C) Double loop
 - (D) Pin and loop
- 7** What is the correct relationship between pressure, droplet size and volume with regard to spraying chemicals?
- (A) Increasing the pressure decreases the droplet size and decreases the total volume applied
 - (B) Decreasing the pressure increases the droplet size and decreases the total volume applied
 - (C) Decreasing the pressure decreases the droplet size and increases the total volume applied
 - (D) Increasing the pressure increases the droplet size and increases the total volume applied
- 8** Which is the most correct method for removing an obstruction blocking a spray nozzle?
- (A) Use a soft brush
 - (B) Use a stiff wire brush
 - (C) Blow the obstruction out with your mouth
 - (D) Use a strong acid to dissolve the obstruction
- 9** What are the lines on a weather map joining areas of equal pressure called?
- (A) Isobars
 - (B) Isohyets
 - (C) Isolines
 - (D) Isotherms

- 10 The graph shows the acceptance of various rodenticide products.



Note: % Acceptance is the % of rodenticide product consumed in a 24-hour period

Which statement is correct?

- (A) Product *P* is as effective as Product *R* in controlling rodents.
 - (B) Product *Q* has a higher acceptance by rodents than Product *R*.
 - (C) Product *U* is significantly more effective in the control of rodents than other rodenticide products.
 - (D) There is approximately 2% more acceptance by rodents of Product *R* than Product *S*.
- 11 What is the most economical method of purchasing 4300 grams (ie 430×10 g sachets) of this product?

Awaiting Copyright Clearance

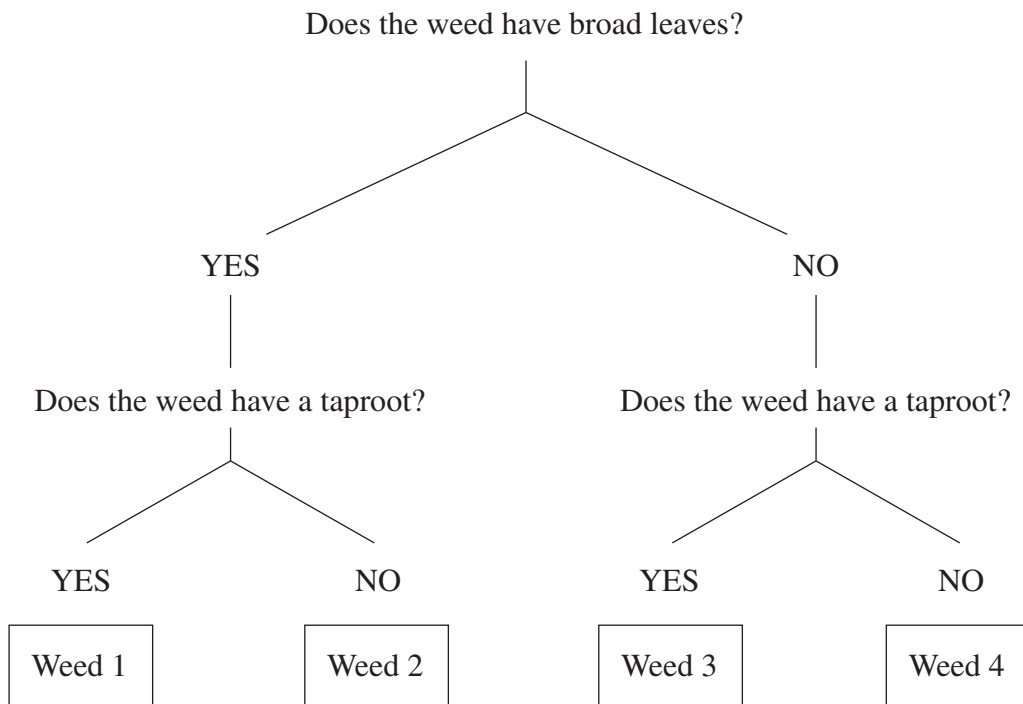
- (A) 1×5 kg plastic pail
- (B) 9×500 g plastic bags
- (C) 8×500 g plastic bags, 1×200 g plastic bag, 1×100 g plastic bag
- (D) 6×500 g plastic bags, 6×200 g plastic bags, 1×100 g plastic bag

- 12** An insecticide is registered for the control of a wide range of insects which affect crop production from plant establishment to harvest. It is very toxic to bees, toxic to fish and moderately toxic to birds.

A farmer is considering using this product as part of an insect control program. At what stage of the life-cycle of the plant could it be used with minimum impact on biodiversity?

- (A) Vegetative
 - (B) Flowering
 - (C) Maturing grain
 - (D) Harvest
- 13** In general, at which stage of its life-cycle is a weed best controlled?
- (A) Flowering
 - (B) Adult plant
 - (C) Young plant
 - (D) Seed dispersal
- 14** On a Sunday night, your sick partner asks you to take them to the doctor on Monday morning. Which of the following would be the most appropriate with regard to your work commitments?
- (A) Arrive late and explain the situation that caused you to be delayed
 - (B) Inform another employee that you will be late for work on Monday morning
 - (C) Ring the employer on Sunday night, explain the situation and ask for leave to transport your partner
 - (D) Send an email to the employer on Monday morning, explaining the situation and informing the employer that you will be late for work

15 Use the key provided to identify this weed.



Which is the weed shown?

- (A) Weed 1
- (B) Weed 2
- (C) Weed 3
- (D) Weed 4

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Primary Industries

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Centre Number

Section II

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Student Number

35 marks

Attempt Questions 16–20

Allow about 45 minutes for this section

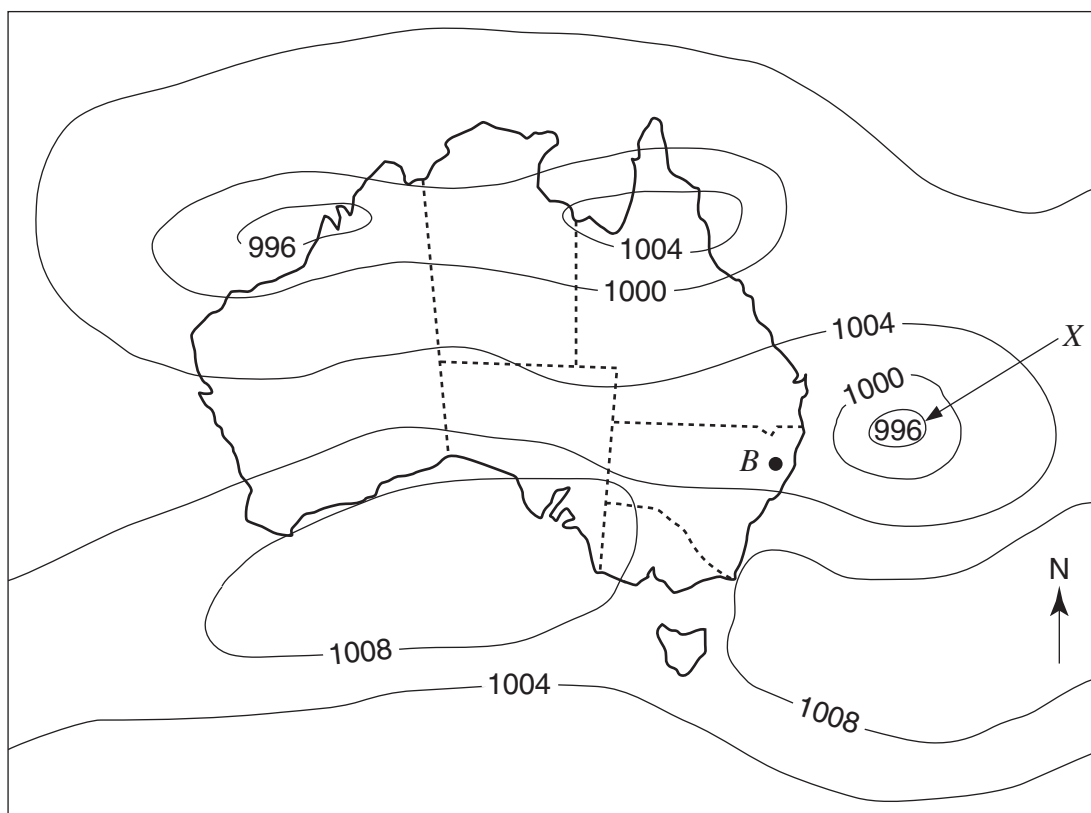
Answer the questions in the spaces provided.

Question 16 (7 marks)

Please turn over

Question 16 (7 marks)

A weather map is shown.



The following information was provided in a weather forecast.

A weather system is centred 100 km off the NSW north coast, travelling in a south-westerly direction at 5 km per hour.

- (a) What type of weather system is located at point X? 1

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- (b) Describe the weather conditions you would expect at point B, 20 hours later. 2

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Question 16 continues on page 11

Question 16 (continued)

- (c) If your farm business is located on river flats on the north coast at point *B*, propose and justify **FOUR** procedures you could implement to reduce the amount of damage that could occur as a result of this weather system passing over your farm business. **4**

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End of Question 16

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Centre Number

Section II (continued)

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Student Number

Marks

Question 17 (6 marks)

A photograph of a person operating a chainsaw is shown.



- (a) List FOUR items of personal protective equipment (PPE) that should be worn when operating a chainsaw. **2**

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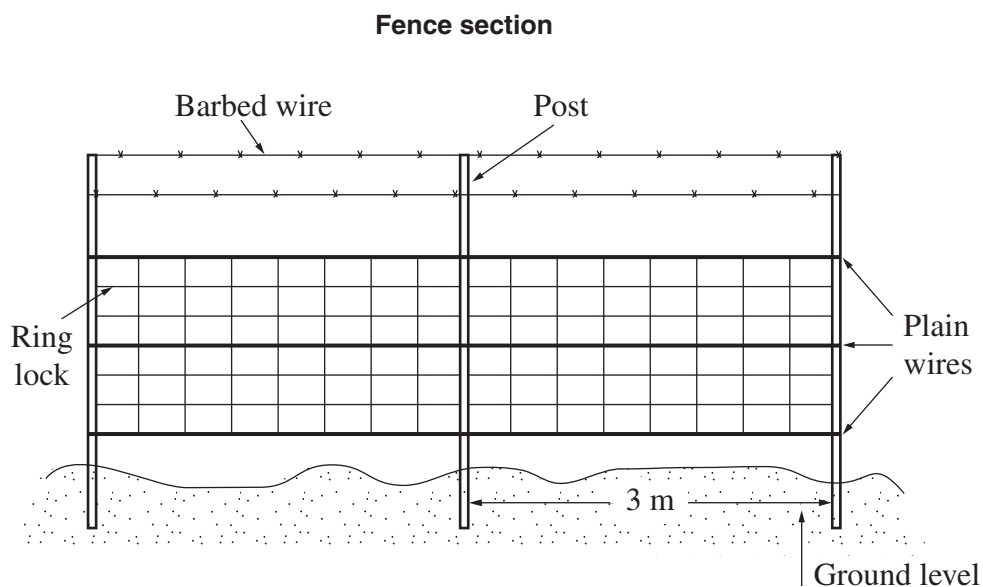
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Question 17 continues on page 14

Question 17 (continued)

(b) A diagram of a fence section is shown.

4



For a 2.4 km fence with a post spacing of 3 m, calculate the amount of material required and the costs. Write your answers in the spaces provided.

<i>Item</i>	<i>Number required</i>	<i>Retail price</i>	<i>Subtotal</i>
Posts (at 3 m spacing)		\$5.20 each	
Barbed wire (500 m/roll)		\$72.00 each	
Plain wire (1500 m/roll)		\$153.00 each	
Ring lock (200 m/roll)		\$258.00 each	
Total price of materials			

Working space

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End of Question 17

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Centre Number

Section II (continued)

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Student Number

Marks

Question 18 (7 marks)

You have arrived at the accident scene shown in the photograph.



You have assessed the emergency situation and decided that there is no significant risk to yourself. You check the injured person and find that they are unconscious.

- (a) What is the emergency telephone number that you should use? **1**

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- (b) As a result of your assessment, list the next TWO actions that you should take. **2**

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Question 18 continues on page 16

Question 18 (continued)

- (c) Propose the next FOUR appropriate actions that you should take after those you have listed in part (b). **4**

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End of Question 18

Primary Industries

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Centre Number

Section II (continued)

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Student Number

Marks

Question 19 (7 marks)

Name a weed species that you have studied.

Name of weed

(a) Outline THREE impacts of this weed.

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(b) Describe a range of methods that could be used to control this weed.

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Primary Industries

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Centre Number

Section II (continued)

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Student Number

Marks

Question 20 (8 marks)

Kim is a rural trainee who has been employed for two months. The employer was happy with Kim’s performance during the first month. They have been through a busy period, working long hours to complete sowing of crops. Kim had wanted to take one Saturday off work to go away with friends, but the employer had insisted that Kim work all that day.

Over the last two weeks Kim was late for work on both Mondays and did not complete all the jobs allocated. As it was a busy time, neither the employer nor the employee had the time to discuss this issue.

On the third consecutive Monday that Kim was late, the employer demanded an explanation.

Kim exploded, ‘I am only catching up on all the unpaid overtime you’ve made me do.’

- (a) Identify the signs of the developing conflict that Kim and the employer should have noticed. **2**

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- (b) Describe how the employer should have dealt with this conflict situation, using the basic techniques of conflict resolution. **3**

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Question 20 continues on page 20

Question 20 (continued)

- (c) Describe **THREE** steps that Kim and/or the employer could have taken to prevent this situation arising. **3**

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End of Question 20

Primary Industries

Section III

30 marks

Attempt TWO questions from Questions 21–23

Allow about 1 hour for this section

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

In your answers you will be assessed on how well you:

- demonstrate relevant knowledge and understanding
 - communicate ideas and information, using precise industry terminology and appropriate workplace examples
 - organise information in a well-reasoned and cohesive response
 - solve proposed issues or problems
-

Question 21 (15 marks)

Explain why weeds are so successful, and assess their economic and environmental impact.

In your answer you may wish to consider:

- a range of features that make weeds successful;
- the types of information you would need about weeds to assess their impact; and
- the extent of the damage caused by weeds.

Question 22 (15 marks)

Justify an approach to occupational health and safety (OHS) risk assessment, when using chemicals to control plant or animal pests.

In your answer you may wish to consider:

- the risk assessment process you would use; and
- the records that you would need to keep to implement this risk assessment.

Please turn over

In your answers you will be assessed on how well you:

- demonstrate relevant knowledge and understanding
 - communicate ideas and information, using precise industry terminology and appropriate workplace examples
 - organise information in a well-reasoned and cohesive response
 - solve proposed issues or problems
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Question 23 (15 marks)

Evaluate management strategies that you could use to reduce the impact of severe weather events.

In your answer you may wish to include:

- the features of severe weather events;
- the information that you would need to assess the potential environmental impact; and
- a range of appropriate management strategies.

End of paper