Primary Industries

General Instructions
• Reading time – 5 minutes
• Working time – 2 hours
• Write using black or blue pen
  Black pen is preferred
• Board-approved calculators may be used
• Write your Centre Number and Student Number at the top of pages 13, 17, 19 and 21

Total marks – 80

Section I Pages 2–9
15 marks
• Attempt Questions 1–15
• Allow about 20 minutes for this section

Section II Pages 13–23
35 marks
• Attempt Questions 16–20
• Allow about 50 minutes for this section

Section III Page 25
15 marks
• Attempt Question 21
• Allow about 25 minutes for this section

Section IV Page 26
15 marks
• Attempt Question 22
• Allow about 25 minutes for this section
Section I

15 marks
Attempt Questions 1–15
Allow about 20 minutes for this section

Use the multiple-choice answer sheet for Questions 1–15.

1 What is the recommended first aid treatment for burn injuries?
   (A) Apply ice pack for at least twenty minutes
   (B) Apply cold running water for at least twenty minutes
   (C) Apply water for ten minutes and cover burn with butter
   (D) Apply water for ten minutes and cover burn with wound cream

2 An intense cold snap bringing high winds and freezing conditions is expected to move across a grazing and cropping property in the next 24 hours.

Which of the following would be the LEAST important job to carry out immediately?
   (A) Move livestock to shelter
   (B) Feed high energy rations to livestock
   (C) Add anti-freeze to your tractor radiator
   (D) Check the float valves on stock water troughs

3 Major flooding has occurred 252 kilometres upstream from a flood-prone property. The peak water level is moving downstream at a rate of 9 kilometres per day.

How long will it take for the floodwaters to reach this property?
   (A) 3 weeks
   (B) 4 weeks
   (C) 5 weeks
   (D) 6 weeks
4 According to the *Noxious Weeds Act 1993* (NSW), a Class 1 weed is one that is

(A) state prohibited.
(B) locally controlled.
(C) regionally prohibited.
(D) regionally controlled.

5 A farmer treats a flock of sheep for external parasites with a product that has an ESI of 28 days.

What does the letter E in ESI stand for?

(A) Export
(B) External
(C) Expected
(D) Extended

6 The following is an extract from a broadleaf herbicide label.

| Plant-back period* (in months) for rotational crops following application of a broadleaf herbicide |
|-------------------------------------------------|-------------------------------------------------|
| *Crop*                                          | *Rate of application*                           |
|                                                 | 200 mL/ha                                      |
|                                                 | 300 mL/ha                                      |
| Wheat                                           | 2                                               |
| Barley                                          | 2                                               |
| Canola                                          | 2                                               |
| Faba beans                                      | 4                                               |
| Chick pea                                       | 4                                               |
| Lucerne                                         | 6                                               |

*The plant-back period is the minimum period between the application of a chemical and the planting of the following crop*

A 12 ha paddock was sprayed with 3.6 L of broadleaf herbicide on 5 January.

What is the earliest date that canola can be planted in this paddock?

(A) 5 March
(B) 5 April
(C) 5 May
(D) 5 June
The following advertisement appeared in a newspaper.

**Experienced Diesel Mechanic required for rural NSW property**

- At least 5 years relevant experience
- Trade certificate
- Own tools and own PPE
- Single male applicants preferred

Enquiries
ABC Pastoral Company
Phone: (02) 12312312

How many of the following four Acts does this advertisement breach?

- *Anti-Discrimination Act 1977 (NSW)*
- *Sex Discrimination Act 1984 (Cth)*
- *Disability Discrimination Act 1992 (Cth)*

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

Which option in the table correctly matches each enterprise with its sector?

<table>
<thead>
<tr>
<th>Wheat enterprise</th>
<th>Potato enterprise</th>
<th>Beef enterprise</th>
<th>Turf enterprise</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Amenity Horticulture</td>
<td>Crop Production</td>
<td>Livestock Production</td>
<td>Production Horticulture</td>
</tr>
<tr>
<td>(B) Production Horticulture</td>
<td>Crop Production</td>
<td>Livestock Production</td>
<td>Amenity Horticulture</td>
</tr>
<tr>
<td>(C) Crop Production</td>
<td>Amenity Horticulture</td>
<td>Livestock Production</td>
<td>Production Horticulture</td>
</tr>
<tr>
<td>(D) Crop Production</td>
<td>Production Horticulture</td>
<td>Livestock Production</td>
<td>Amenity Horticulture</td>
</tr>
</tbody>
</table>
Two farm hands are fencing a canola paddock. One is stung by a bee and has a severe allergic reaction.

Using the steps below, what is the correct sequence of action to be taken by the other farm hand?

1. Send or call for help.
2. Check for a response by talk and touch.
3. Check to see if there are any more bees nearby.
4. Check to see if the patient is breathing.
5. Open the patient’s airway and ensure it is clear.

(A) 1, 2, 3, 4, 5
(B) 1, 3, 2, 5, 4
(C) 3, 1, 2, 4, 5
(D) 3, 2, 1, 5, 4

Health and safety laws, regulations and codes of practice are important for the control and regulation of health and safety in the workplace.

Which of these statements is NOT correct?

(A) Regulations are legally enforceable.
(B) Codes of Practice are legally enforceable.
(C) An Act sets out requirements ensuring that workplaces are healthy and safe.
(D) A Code of Practice provides advice on how to meet regulatory requirements.
The diagrams show extracts from an emergency information panel and a HAZCHEM Emergency Action Code.

After dialling 000, which set of actions is recommended to control a spill of this chemical?

(A) Use a fine spray and breathing apparatus, contain the spill and consider evacuation
(B) Use a dry agent and breathing apparatus, dilute the chemical and consider evacuation
(C) Use foam and breathing apparatus, wear a liquid-tight chemical protective suit and contain the spill
(D) Use a fine spray, consider evacuation, wear a liquid-tight chemical protective suit and dilute the chemical
You have been asked to spray a 120 ha pasture paddock in NSW to control capeweed.

Using this chemical label extract, how much chemical is required to spray this paddock?

(A) 14 litres
(B) 100 litres
(C) 168 litres
(D) 280 litres
13 The following table shows your work diary for last week.

<table>
<thead>
<tr>
<th>Day/date</th>
<th>Employer</th>
<th>Hours worked or number of runs</th>
<th>Base Rate of pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>J. Smith</td>
<td>4</td>
<td>$50/ run</td>
</tr>
<tr>
<td>Tuesday</td>
<td>J. Smith</td>
<td>4</td>
<td>$50/ run</td>
</tr>
<tr>
<td>Wednesday</td>
<td>B. Jones</td>
<td>8</td>
<td>$20/ hour</td>
</tr>
<tr>
<td>Thursday</td>
<td>B. Jones</td>
<td>8</td>
<td>$20/ hour</td>
</tr>
<tr>
<td>Friday</td>
<td>B. Jones</td>
<td>8</td>
<td>$20/ hour</td>
</tr>
</tbody>
</table>

You worked as a shed hand for the first two days of the week and were paid by the run. The next three days you worked as a farm hand and were paid by the hour. Friday was a public holiday and you were paid double time. Your employers are required to pay the minimum superannuation contribution of 9% of your gross salary to your superannuation fund.

What is the correct amount of total superannuation contributions to be made by your employers?

(A) $93.60
(B) $79.20
(C) $9.36
(D) $9.00

14 Fencing wire can be joined using different knots.

In which of the following is each situation matched with the most appropriate knot?

<table>
<thead>
<tr>
<th>Joining plain wire of the same gauge over long strains</th>
<th>Joining barbed wire in short strains</th>
<th>Joining plain wire in short strains</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Figure 8</td>
<td>Double loop</td>
<td>Pin and loop</td>
</tr>
<tr>
<td>(B) Double loop</td>
<td>Figure 8</td>
<td>Bullwire</td>
</tr>
<tr>
<td>(C) Pin and loop</td>
<td>Bullwire</td>
<td>Figure 8</td>
</tr>
<tr>
<td>(D) Bullwire</td>
<td>Pin and loop</td>
<td>Double loop</td>
</tr>
</tbody>
</table>
The concentration of a contaminant in a stream is monitored over 30 days. The results are graphed below.

The table shows the maximum contaminant concentration allowable for use in livestock drinking water, and the irrigation of food and non-food crops.

<table>
<thead>
<tr>
<th>Water use</th>
<th>Maximum contaminant concentration (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water for livestock</td>
<td>Less than 10</td>
</tr>
<tr>
<td>Irrigation for food crop</td>
<td>Less than 20</td>
</tr>
<tr>
<td>Irrigation for non-food crop</td>
<td>Less than 50</td>
</tr>
</tbody>
</table>

Which option correctly shows the number of days that water was available for each specific use?

<table>
<thead>
<tr>
<th></th>
<th>Livestock drinking water</th>
<th>Irrigation for food crop</th>
<th>Irrigation for non-food crop</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)</td>
<td>8</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>(B)</td>
<td>27</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>(C)</td>
<td>8</td>
<td>13</td>
<td>27</td>
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<tr>
<td>(D)</td>
<td>22</td>
<td>17</td>
<td>3</td>
</tr>
</tbody>
</table>
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Primary Industries

Section II

35 marks
Attempt Questions 16–20
Allow about 50 minutes for this section

Answer the questions in the spaces provided. These spaces provide guidance for the expected length of response.

Question 16 (4 marks)

There is severe gully erosion in a paddock used for livestock. The farmer decides to fence the gully off and take that part of the paddock out of production.

(a) Why is it important to fence the gully?

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Question 16 continues on page 14
The fence will consist of three strands of plain wire with rabbit-proof wire netting attached. It will be supported by steel line posts spaced at five-metre intervals. There will be four prefabricated corner end assemblies used. Wire will be purchased by the roll.

The diagram shows the fencing job required.

Complete the table to show the costs of materials required and the total cost.

<table>
<thead>
<tr>
<th>Materials</th>
<th>Number required</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel line posts at $7 each</td>
<td></td>
<td></td>
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<tr>
<td>Plain wire at $100 per 1200 metre roll</td>
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<tr>
<td>Wire netting at $260 per 400 metre roll</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prefabricated corner end assemblies at $100 per unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total cost of materials =</td>
<td></td>
</tr>
</tbody>
</table>
**Question 17** (6 marks)

Kerry is one of a team of trainees at a rural produce store. The supervisor has a team meeting every fortnight. Staff rosters are put up at these meetings.

At a meeting two months ago, Kerry asked to have a weekend off to attend an important family function. The supervisor agreed to this request. Two weeks before the function, the roster showed Kerry was down to work that weekend. Kerry said to the supervisor, ‘Two months ago I organised with you to have this weekend off.’ The supervisor replied, ‘I don’t remember that. The roster is set and it is our big weekend.’

(a) Outline how meeting procedures could have been improved to avoid this situation.

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(b) Provide strategies that the supervisor could use to resolve this situation with Kerry.

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Question 18 (9 marks)

A farmer plans to install a water pipeline from the farm shed to the farm residence. The pipeline will be laid 600 mm underground and is 200 metres long. A pipe-layer will be attached to a tractor via the three-point linkage system.

(a) Identify TWO hazards associated with this activity.
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(b) Describe the risks associated with ONE of the hazards identified in part (a).
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Question 18 continues on page 18
Question 18 (continued)

(c) Evaluate control strategies that could be used to minimise the risks associated with this activity.

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End of Question 18
Question 19 (7 marks)

The weather map indicates the weather across NSW for 25 August. The front is moving at a constant speed of 25 km/hour in an easterly direction.

(a) How long before the front should reach X?

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(b) What are the likely impacts of the weather conditions associated with this front on the prime-lamb production enterprise at X?

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(c) Explain strategies to reduce the impacts of these weather conditions at the prime-lamb enterprise.

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End of Question 19
Question 20 (9 marks)

Please turn over
Question 20 (continued)

The diagram shows a plan of a farm with a number of enterprises.

[Diagram of a farm plan with various enterprises marked, including Owner's residence, Crop paddock, Oats, Creek paddock, Native vegetation and wildlife area, Public road, North Vineyard paddock, South Vineyard paddock, Dam for irrigation, Chemical store, Packing and machinery shed, Turf Farm, National Park, and various paddocks labeled with crops and vegetation.]

**KEY**

- **Property boundary**
- **Internal fences**
- **Buildings**
- **Native vegetation and wetland**
- **Windbreak**
- **Woodlot**
- **Scale**: 1 cm = 100 metres
- **1 hectare (1 ha) = 10 000 m²**

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*Question 20 continues on page 23*
Question 20 (continued)

(a) Name ONE risk that would have to be considered when using chemicals to control a ryegrass infestation in the crop paddock.

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(b) What strategies could be implemented to reduce this risk?

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(c) Following treatment for ryegrass in the crop paddock, areas of ryegrass survived. Describe TWO possible reasons for this.

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(d) Describe strategies that could be used to reduce the likelihood of this occurring again.

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End of Question 20
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Section III

15 marks
Attempt Question 21
Allow about 25 minutes for this section

Answer the question in a writing booklet. Extra writing booklets are available.

In your answer you will be assessed on how well you:
■ demonstrate knowledge and understanding relevant to the question
■ communicate ideas and information using relevant workplace examples and industry terminology
■ present a logical and cohesive response

Question 21 (15 marks)

Evaluate the effectiveness of a range of communication strategies used in primary industry enterprises for both routine and emergency situations.

Please turn over
Section IV

15 marks
Attempt Question 22
Allow about 25 minutes for this section

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

Question 22 (15 marks)

A fencing project is planned for TWO consecutive days on the boundary between a property and a national park. The area to be fenced is in an isolated part of the property. A seven day weather forecast for the area is shown in the table.

(a) Justify reasons for choosing particular days to carry out this project in terms of personal safety, climatic considerations and work efficiency.

(b) Develop and evaluate an emergency plan for this project including examples of emergency risks that should be considered.

End of paper