External assessment 2021

Multiple choice question book

Agricultural Science

Paper 1

General instruction

- Work in this book will not be marked.

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Section 1

QUESTION 1

The table contains feed consumption and live weight data for four different agricultural animals.

Identify the animal that has the best feed conversion ratio.

Animal	Mass of food eaten (kg)	Mass gained by the animal (kg)
(A)	5.4	0.5
(B)	5.2	4.0
(C)	3.6	3.0
(D)	0.9	0.6

QUESTION 2

An appropriate risk management strategy for a honey bee enterprise is to

(A) sell honey bee–related products to one market.

(B) develop new product types from extracted honey.

(C) provide enough water to meet environmental conditions.

(D) identify one supplier to provide replacement queen bees.

QUESTION 3

A dairy farmer is planning to introduce new genetics into the herd to improve milk protein yield. The table shows Australian Breeding Values (ABVs) for four bulls.

Identify the bull the farmer should use to improve the milk protein content of the herd.

Bull	Milk protein yield (kg dry/lactation)	Milk yield (L/lactation)	Fat yield (kg/lactation)
(A)	18	–120	39
(B)	30	190	23
(C)	32	195	36
(D)	36	–20	27

QUESTION 4

The table shows grain yield from a field trial for two varieties of oats at different rates of nitrogen application.

Rate of nitrogen applied (kg/ha)	Variety 1 (kg/ha)	Variety 2 (kg/ha)
0	2.4	2.4
10	3.4	3.4
30	5.1	4.6
50	5.6	3.8
80	5.1	3.4

Which conclusion can be supported by the data?

(A) Variety 2 demonstrates the largest positive response to nitrogen application.

(B) Both varieties show a decline in yield at the same rate of nitrogen application.

(C) Variety 1 requires less nitrogen fertiliser than Variety 2 to achieve optimal production.

(D) Other major nutrients are limiting grain yield for Variety 2 at an application rate of 80 kg/ha.

QUESTION 5

The table shows the population data collected in a study of four edible insect species in a 10-ha area.

Species	Year			
	1980	1990	2000	2020
C. redtembacheri H.	480	363	387	495
A. hesperiaris W.	139	112	85	79
M. melliger W.	280	178	87	30
Th. gigas B.	700	572	620	541

Identify the species that could be a commercial option if harvested for human consumption in the local region.

(A) *C. redtembacheri H.*

(B) *A. hesperiaris W.*

(C) *M. melliger W.*

(D) *Th. gigas B.*

QUESTION 6

In a monogastric animal, carbohydrates are absorbed in the

(A) rumen.

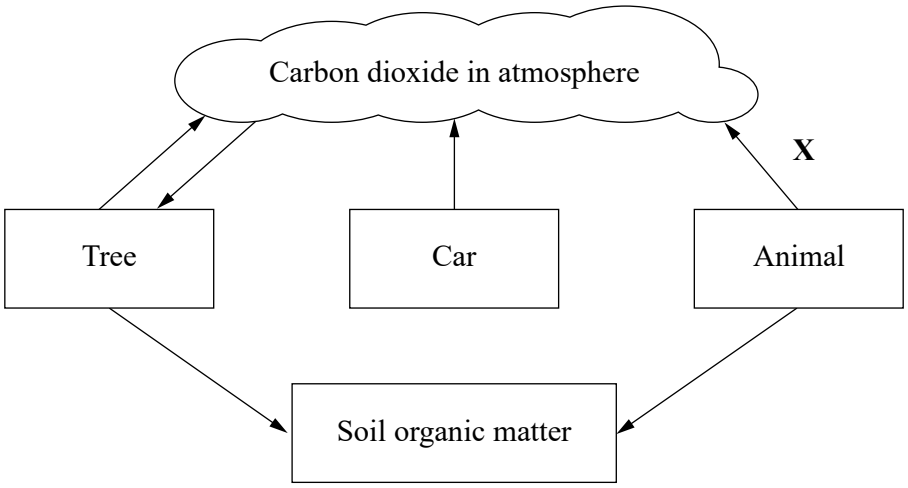
(B) true stomach.

(C) large intestine.

(D) small intestine.

QUESTION 7

The diagram shows a simplified nutrient cycle.



Identify the process marked X on the diagram.

(A) respiration

(B) combustion

(C) decomposition

(D) photosynthesis

QUESTION 8

Crossbreeding involves developing new plant varieties by crossing offspring from

(A) related plants with themselves.

(B) unrelated plants of different varieties.

(C) related plants until the offspring are purebred.

(D) plants of different varieties by using pollen in sterile cultures.

QUESTION 9

Identify which type of animal uses volatile fatty acids as its major source of energy.

(A) fish

(B) goats

(C) horses

(D) poultry

QUESTION 10

The table shows the percentage of nutrients found in four different poultry feeds.

Identify the most appropriate feed for laying hens.

Feed	Minimum crude protein (%)	Minimum crude fat (%)	Maximum crude fibre (%)	Maximum added salt (%)	Minimum calcium (%)	Minimum available phosphorus (%)
(A)	19.5	2.5	6.0	0.3	1.0	0.5
(B)	15.5	2.5	8.0	0.0	1.0	0.5
(C)	15.0	2.5	10.0	0.3	3.8	0.4
(D)	12.5	2.5	6.0	0.0	2.0	0.3

QUESTION 11

The table shows the bone, muscle and fat percentages of carcasses for a type of agricultural animal at different stages of the production cycle. The stages are not in any order.

Stage of production	Bone (%)	Muscle (%)	Fat (%)
I	11	49	36
II	9	43	46
III	8	40	48
IV	24	64	9

A conclusion supported by the data in the table is that the animal at

(A) Stage I is a leaner carcass than the animal at Stage IV.

(B) Stage IV is a younger animal than the animal at Stage II.

(C) Stage II has a lower meat yield than the animal at Stage III.

(D) Stage III is at an earlier stage of its production cycle than the animal at Stage I.

QUESTION 12

Dairy goat production could be positively influenced by

(A) breeding with an F1 generation male.

(B) vaccinating annually for clostridial diseases.

(C) grazing on a lucerne pasture for an extended time.

(D) moving stock into a paddock that is currently being grazed by sheep.

QUESTION 13

The table shows an excerpt of income and variable costs from a merino enterprise.

	Budget ($)
Income	
Wool	
Shear	86 996
Crutch	3 411
Sheep sales	17 219
Variable costs	
Replacements	
Breeders and rams	14 875
Cartage	350
Wool harvesting and selling	
Shearing	7 150
Crutching	1 566
Sheep health	
Fly control	1 800
Vaccination (6-in-1)	300
Pasture maintenance	3 922

Calculate the gross margin for the enterprise.

(A) –$77 663

(B) $60 444

(C) $77 663

(D) $137 589

QUESTION 14

Chlorothalonil is a fungicide that controls downy mildew in zucchinis. The recommended application schedule is 7 to 14 days. When disease pressure is high, the manufacturer recommends spraying at 2.5 L/ha at 7-day intervals.

Identify the total volume of fungicide required for a 3.5-ha zucchini crop over a 2-week period in which 10 mL of rain has fallen.

(A) 7.00 L

(B) 8.75 L

(C) 17.50 L

(D) 26.25 L

QUESTION 15

The most effective alternative method to mulesing in sheep is

(A) breeding sheep without wool in the breech area.

(B) moving sheep to a new paddock.

(C) vaccinating for diseases.

(D) providing pain relief.

QUESTION 16

A demand factor that could increase the price of coffee beans grown in northern Queensland is the

(A) arrival of coffee berry disease in Australia.

(B) implementation of a foreign trade agreement.

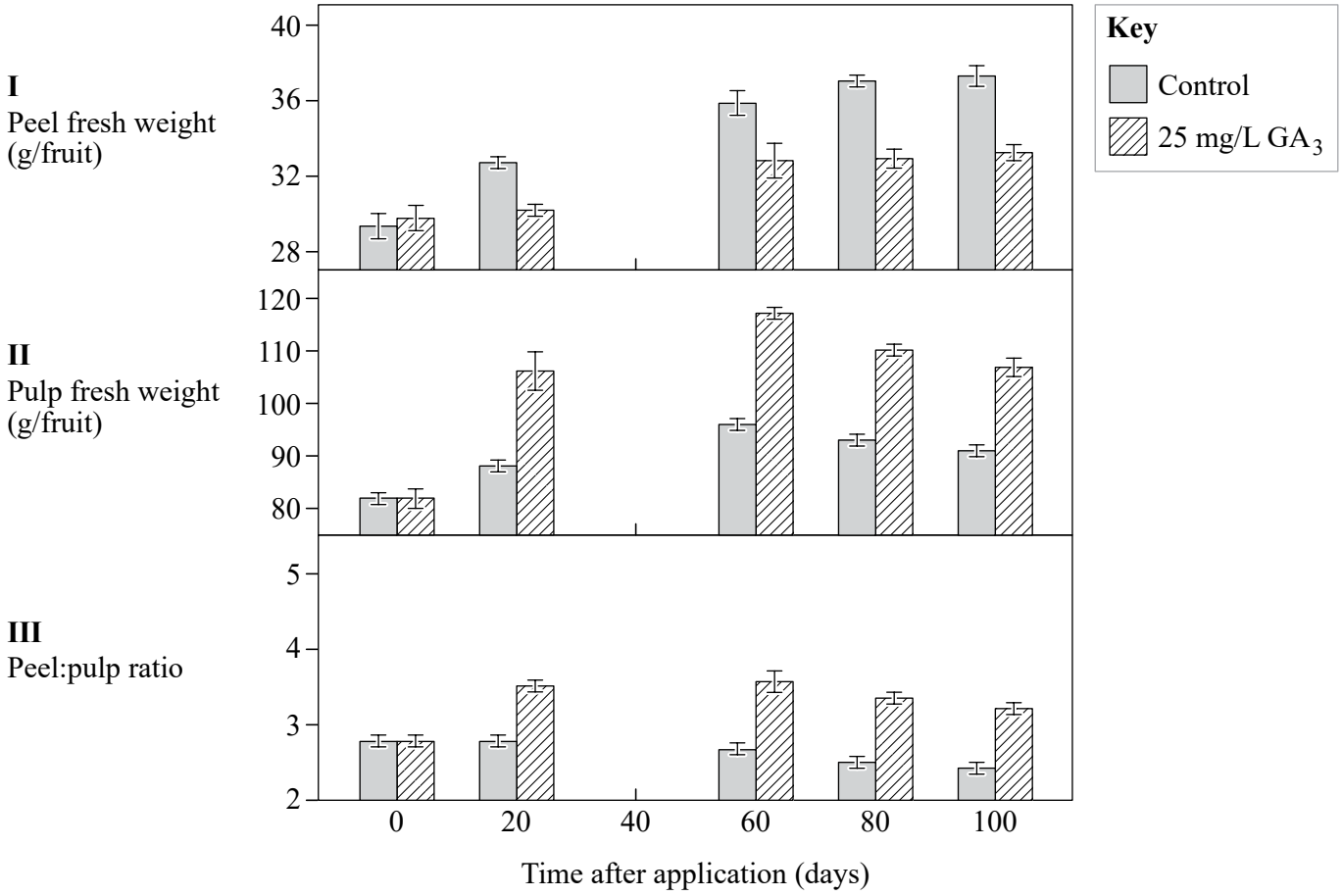
(C) implementation of water quotas in irrigation areas.

(D) destruction of plantations due to extreme weather events.

QUESTION 17

The graphs show the effect of 25 mg/L GA_3 spray applied to mandarin trees on peel fresh weight (I), pulp fresh weight including juice content (II) and peel:pulp ratio (III).

Error bars indicate standard error.



A conclusion that could be drawn from this experiment is that GA_3 treatment

(A) slowed the increase in peel weight during maturation.

(B) significantly decreased the pulp weight during maturation.

(C) significantly delayed the naturally occurring decrease in peel:pulp ratio.

(D) significantly increased the peel weight compared to the control treatment.

QUESTION 18

A market specification criterion used only by Meat Standards Australia (MSA) is

(A) fat depth.

(B) meat colour.

(C) carcass weight.

(D) tropical content.

QUESTION 19

A source of extreme risk for farm workers that can occur in a plant production system is

(A) applying a pesticide to a greenhouse hydroponic system.

(B) formulating a ration using a hammer mill.

(C) mixing a herbicide with a surfactant.

(D) moving stock between paddocks.

QUESTION 20

In a ruminant animal, fats are broken down into

(A) amino acids.

(B) hydrochloric acid.

(C) volatile fatty acids.

(D) essential fatty acids.

References

Question 3

Data sourced from DataGene 2019a, 'Cow ABVs — August 2019', www.datagene.com.au/cowABVsMenu.

——2019b, 'Good bulls guide — August 2019', www.datagene.com.au/GoodBulls.

Question 5

Data sourced from Ramos-Elorduy, J 2006, table 2, in 'Threatened edible insects in Hidalgo, Mexico and some measures to preserve them', *Journal of Ethnobiology and Ethnomedicine*, issue 2, https://doi.org/10.1186/1746-4269-2-51. Licensed under CC BY 2.0.

Question 10

Data sourced from Barastoc 2019, 'Our products', https://barastocpoultry.com.au/our-products/essentials-range/chick-starter.

Question 17

Data extracted from Pozo, L et al. 2000, Figure 3, View of Effects of gibberellic acid on ripening and rind puffing in 'Sunburst' mandarin, *Proceedings of the Florida State Horticultural Society* 2022, Flvc.org, available at: https://journals.flvc.org/fshs/article/view/86362/83278

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Book of books used

External assessment 2021

Question and response book

Agricultural Science

Paper 1

Time allowed

- Perusal time — 10 minutes
- Working time — 90 minutes

General instructions

- Answer all questions in this question and response book.
- QCAA-approved calculator permitted.
- Planning paper will not be marked.

Section 1 (20 marks)

- 20 multiple choice questions

Section 2 (40 marks)

- 8 short response questions

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Section 1

Instructions

- Choose the best answer for Questions 1–20.
- This section has 20 questions and is worth 20 marks.
- Use a 2B pencil to fill in the A, B, C or D answer bubble completely.
- If you change your mind or make a mistake, use an eraser to remove your response and fill in the new answer bubble completely.

	A	B	C	D
Example:	●	○	○	○

	A	B	C	D
1.	○	○	○	○
2.	○	○	○	○
3.	○	○	○	○
4.	○	○	○	○
5.	○	○	○	○
6.	○	○	○	○
7.	○	○	○	○
8.	○	○	○	○
9.	○	○	○	○
10.	○	○	○	○
11.	○	○	○	○
12.	○	○	○	○
13.	○	○	○	○
14.	○	○	○	○
15.	○	○	○	○
16.	○	○	○	○
17.	○	○	○	○
18.	○	○	○	○
19.	○	○	○	○
20.	○	○	○	○

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Section 2

Instructions

- Write using black or blue pen.
- If you need more space for a response, use the additional pages at the back of this book.
  - On the additional pages, write the question number you are responding to.
  - Cancel any incorrect response by ruling a single diagonal line through your work.
  - Write the page number of your alternative/additional response, i.e. See page …
  - If you do not do this, your original response will be marked.
- This section has eight questions and is worth 40 marks.

QUESTION 21 (1 mark)

Identify the six different types of energy involved in digestion and metabolism of food.

Do not write outside this box.

QUESTION 22 (4 marks)

A cage egg producer in Queensland is concerned about the low level of cage egg sales in the retail market. Explain two risk management strategies the producer could use to help prevent financial loss.

Do not write outside this box.

QUESTION 23 (4 marks)

a) Describe paddock rotation and the reason for this practice. *[2 marks]*

The table contains yield data for different grazing management strategies.

Strategy	Annual yield (t DM/ha)	Utilisation (%)
Continuous grazing	8.5	60
Paddock rotation	10.2	65
Cell grazing	10.2	80

b) Draw a conclusion about the grazing strategy most likely to increase animal production. Justify your conclusion. *[2 marks]*

Do not write outside this box.

QUESTION 24 (6 marks)

a) Identify one significant animal disease that affects production. *[1 mark]*

b) Identify two health effects and two economic effects of the disease identified in Question 24a). *[2 marks]*

c) Use an example to explain a biological method of pest control and the conditions that should be met before it is used to control an animal pest. *[3 marks]*

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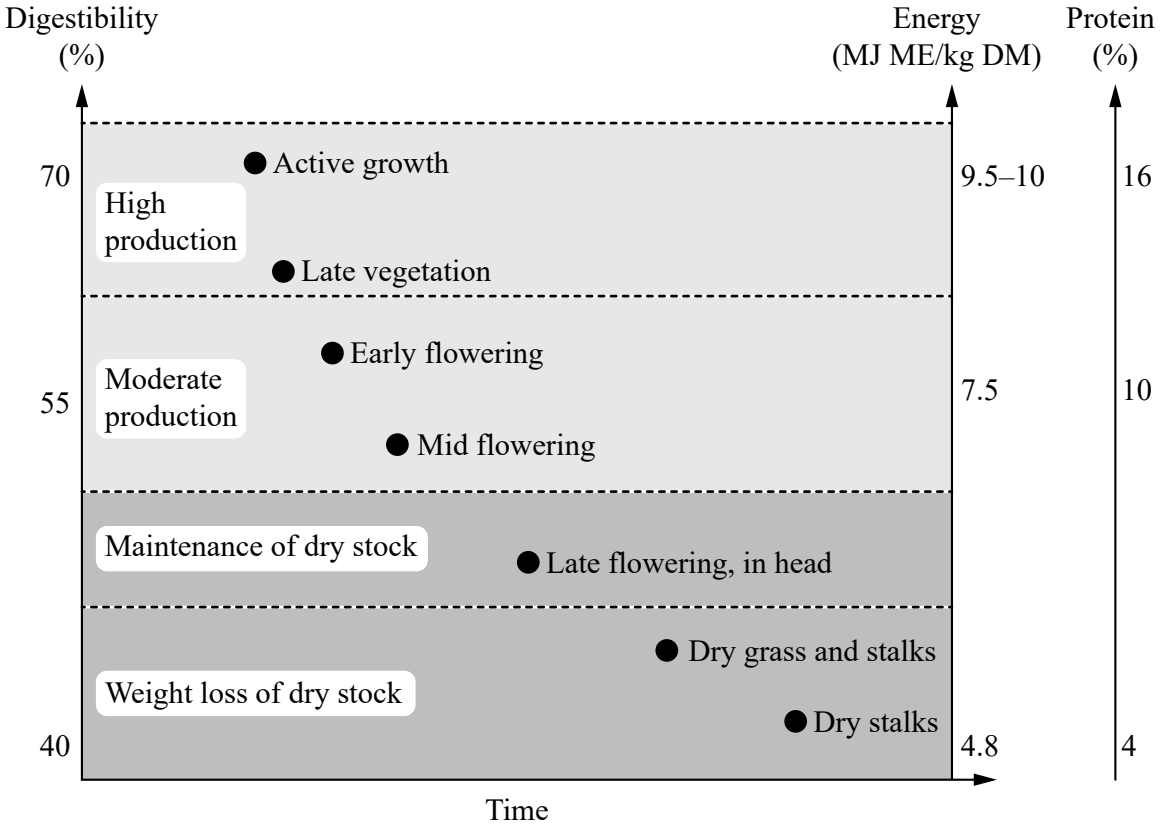
QUESTION 25 (5 marks)

The graph shows changes in pasture quality over time. The table contains the energy and protein requirements for weaner sheep at different live weights.



Live weight	Weaner < 20 kg	Weaner 20–25 kg	Weaner > 25 kg
Metabolisable energy (MJ/kg dry matter)	3.4–4.5	4.5–5.7	5.7–6.8
Crude protein (%)	14–16	12–14	10–12

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a) Describe one function of protein in an animal's diet. *[1 mark]*

b) Use the table to identify the relationship between the crude protein requirement and the weight of weaner sheep. *[1 mark]*

c) Use the graph and table to draw a conclusion about the effect on animal growth if a group of 30 kg weaner sheep was fed a grass-based pasture at the late flowering and dry grass and stalks stages. Explain your reasoning. *[3 marks]*

Do not write outside this box.

QUESTION 26 (7 marks)

A producer is developing a cropping plan for next summer. They are considering whether they should plant peanuts or lucerne.

Peanuts	**Budget ($/ha)**
Income	
Jumbo (2.5 t/ha @ $1200/t)	3000
Ones (0.5 t/ha @ $1000/t)	500
Splits (0.25 t/ha @ $900/t)	**X**
Total income	**Y**
Variable costs	
Fallow management	16
Planting	313
Plant nutrition	87
Plant protection	129
Irrigation	360
Harvesting	241
Total variable costs	1146

Lucerne	**Budget ($/ha)**
Income	
AFIA Grade A1 (320 bales/ha @ $8/bale)	2560
AFIA Grade B2 (106 bales/ha @ $6/bale)	636
AFIA Grade C3 (106 bales/ha @ $4/bale)	424
Total income	3620
Variable costs	
Fallow management	29
Planting	35
Plant nutrition	44
Plant protection	8
Irrigation	630
Harvesting	193
Other	32
Total variable costs	**Z**

Do not write outside this box.

a) Determine the values for the cells marked X, Y and Z in the tables. *[3 marks]*

X: _____

Y: _____

Z: _____

b) Use the data in the tables to identify which crop the producer should plant.
Provide reasoning for your decision. *[4 marks]*

Do not write outside this box.

QUESTION 27 (7 marks)

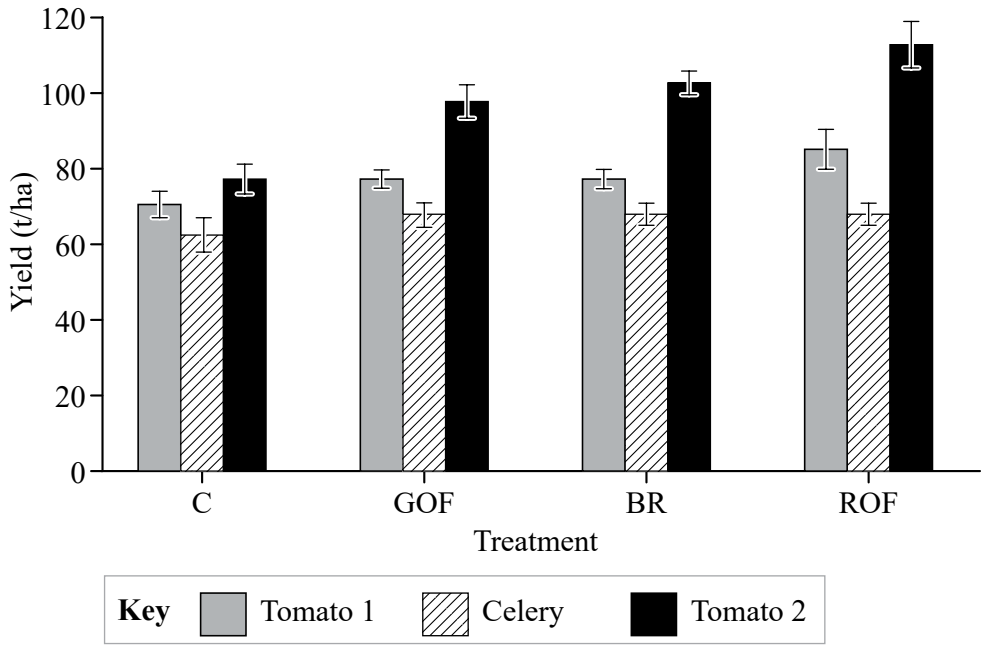
A trial was conducted on a double-crop rotation system, using nitrogen supplied in different forms, to evaluate the effects of different fertilisers on crop yield.

The different kinds of common organic fertilisers used and compared to the control treatment (C) were:

- general organic fertiliser (GOF)
- biogas residue (BR)
- refined organic fertiliser (ROF).

Both crops of tomato used the same variety.

The graph shows the mean yield for each crop and fertiliser treatment. Error bars represent 95% confidence intervals.



a) Explain why nitrogen is important for plant growth in agricultural crops. *[2 marks]*

Do not write outside this box.

b) Analyse the data to identify the relationship between the type of fertiliser applied and celery yield. *[1 mark]*

c) Decide which fertiliser tomato farmers should use to optimise production in this cropping system. Justify your decision with two pieces of evidence and give a reason this type of fertiliser would be expected to improve the yield of a tomato crop. *[4 marks]*

Do not write outside this box.

QUESTION 28 (6 marks)

A dairy farm in the tick-free zone of Queensland has been quarantined due to a cattle tick infestation. The producer is required to treat their animals over a two-year period to eradicate the infestation and then continue to treat their animals to prevent re-infestation.

Discuss an effective strategy for a two-year period, considering the goals and implications of using chemicals in a dairy enterprise.

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ADDITIONAL PAGE FOR STUDENT RESPONSES

Write the question number you are responding to.

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ADDITIONAL PAGE FOR STUDENT RESPONSES

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References

Question 23

Data from Agriculture and Horticulture Development Board 2018, 'Table 5: A guide to expected utilisation according to different grazing systems' in *Planning Grazing Strategies for Better Returns* (Better Returns Manual 8), p. 10, https://ahdb.org.uk/knowledge-library/planning-grazing-strategies-for-better-returns.

Question 25

Diagram adapted from Meat & Livestock Australia 2019, Figure 2 in 'Improving pasture use with the MLA Pasture Ruler' factsheet available at: https://www.mla.com.au/globalassets/mla-corporate/extensions-training-and-tools/creative-commons/pasture-ruler-tips-and-tools---cc.pdf.
Licensed under Creative Commons Licence CC-BY-SA 4.0.

Table — Data from Tool 11.1 in Energy and protein requirements of sheep 2022, http://www.makingmorefromsheep.com.au/healthy-contented-sheep/tool_11.1.html

Question 26

Data from NSW Department of Primary Industries 2013, 'Surface irrigated lucerne — established stand' in *Farm Enterprise Budget Series — Northern Zone*, summer 2012–2013, www.dpi.nsw.gov.au/__data/assets/pdf_file/0008/175922/Irrigated-surface-lucerne-12-13.pdf

Data from Queensland Government 2017, 'Peanut (Irrigated) North Burnett 2016' (report), *AgMargins*, Department of Agriculture and Fisheries, https://agmargins.net.au/Reports/Details/2ec442dd-adab-47e8-a4aa-033e472359ce. Licensed under CC BY 3.0.

Question 27

Adapted from Li, S et al. 2017, Figure 1 in 'Effect of different organic fertilizers application on growth and environmental risk of nitrate under a vegetable field', *Scientific Reports*, vol. 7, no. 1., page 2 available at: www.nature.com/articles/s41598-017-17219-y
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Book of books used

External assessment 2021

Question and response book

Agricultural Science

Paper 2

Time allowed

- Perusal time — 10 minutes
- Working time — 90 minutes

General instructions

- Answer all questions in this question and response book.
- Write using black or blue pen.
- QCAA-approved calculator permitted.
- Planning paper will not be marked.

Section 1 (40 marks)

- 9 short response questions

Section 2 (15 marks)

- 1 extended response question

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Section 1

Instructions

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  - Write the page number of your alternative/additional response, i.e. See page …
  - If you do not do this, your original response will be marked.
- This section has nine questions and is worth 40 marks.

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QUESTION 1 (5 marks)

In 2015 and 2016, a number of events affected Australian horticulture industries.

- An agreement between South Korea and Australia — the Korea–Australia Free Trade Agreement (KAFTA) — came into effect on 1 January 2015.
- The Korea–New Zealand Free Trade Agreement came into effect on 20 December 2015.
- Yields of Tasmanian cherries harvested in 2016 were lower than expected.

The table shows an excerpt of fresh fruit and vegetable exports from Australia to South Korea from 1 January 2014 to 31 December 2016.

Crop	Exports (tonnes)		
	2014	2015	2016
Asparagus	39	87	105
Cherries	248	365	77
Oranges	245	1 015	1 461
Potatoes	11 372	24 269	20 634

a) Draw a conclusion about the benefits of the KAFTA for Australian horticulture industries. Justify your response. *[2 marks]*

Do not write outside this box.

b) Explain how these events account for the changes in cherry exports from 2014 to 2016. *[3 marks]*

Do not write outside this box.

QUESTION 2 (4 marks)

Family farms are one type of agricultural enterprise. Identify another type of agricultural enterprise and use an example to explain two of the enterprise's features.

QUESTION 3 (3 marks)

Explain the role of a beneficial organism in a plant production system. Use two examples in your response.

Do not write outside this box.

QUESTION 4 (4 marks)

The table shows the effect of increasing foliar application of magnesium on the average number and weight of chilli fruits at harvest. Uncertainties indicate 95% confidence intervals.

Treatment	Number of fruits	Fresh weight of fruits (g)
Control	7.0 ± 0.1	139.0 ± 1.0
50 ppm	17.0 ± 0.6	226.0 ± 1.2
100 ppm	18.3 ± 1.2	260.0 ± 1.2
150 ppm	21.0 ± 1.2	274.0 ± 1.2

Use the data to discuss how foliar application of magnesium affects the yield of chilli plants.

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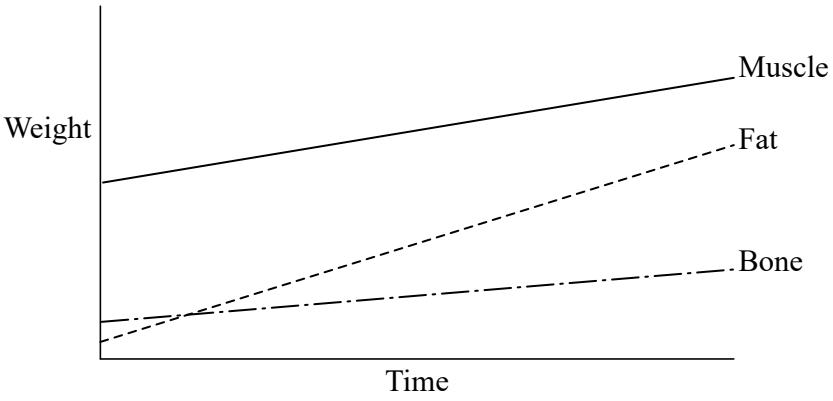
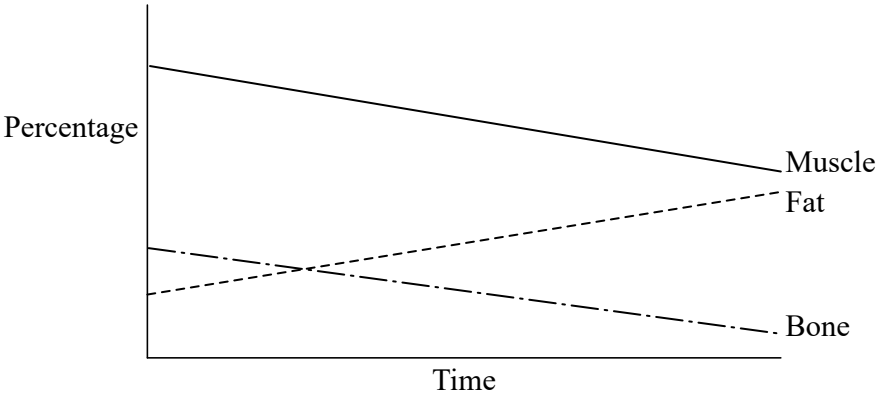
QUESTION 5 (4 marks)

The graphs show generalised growth trends for animals' weight and percentage composition.





Use the graphs to draw a conclusion about why animals are suitable for different markets at different ages. Justify your conclusion with three pieces of evidence.

Do not write outside this box.

Do not write outside this box.

QUESTION 6 (7 marks)

The table contains information about the market share (% volume) and value for different egg production systems in the 2018 financial year.

System	Market volume (%)	Market value (%)	Eggs produced (× 1000)	Change in market volume from 2017 (%)
Cage eggs	43.99	30.68	101 038	–6.90
Free-range eggs	45.38	56.36	104 211	13.80
Barn-laid eggs	9.12	9.45	20 944	3.70
Specialty eggs	1.51	3.51	3 466	15.20

a) Determine which egg production system would have the highest value per egg in the marketplace. Justify your answer using two pieces of evidence. *[3 marks]*

Do not write outside this box.

b) Infer reasons for two trends in the change of egg production systems. *[4 marks]*

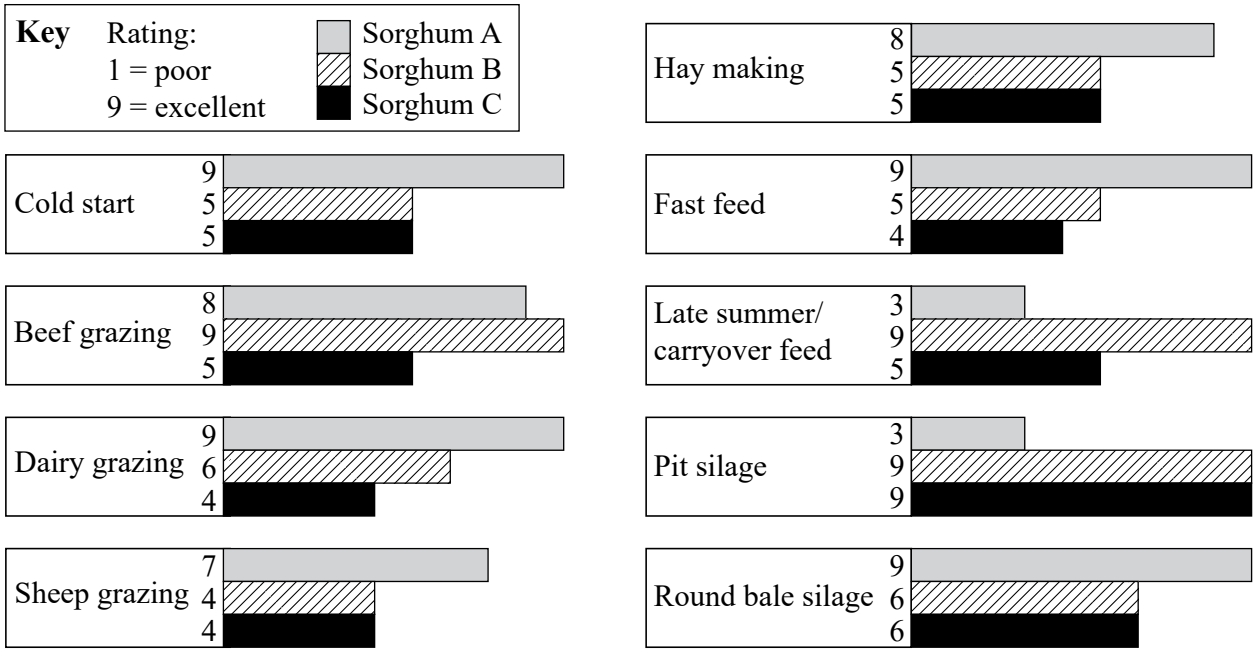
Do not write outside this box.

QUESTION 7 (5 marks)

A beef producer in southern Queensland wants to take advantage of an unseasonal late-winter rainfall of 110 mm and plant a summer forage crop. The beef producer is unsure if the crop will be grazed off or mechanically removed as hay or bale-wrapped silage. This decision will depend on future growing conditions.

The table shows the mean rainfall usually experienced in the region. The information in the graphs describes the characteristics of three different varieties of forage sorghum suitable for the region.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean rainfall (mm)	129.8	144.0	104.7	43.0	45.3	37.4	31.8	26.8	24.2	49.5	66.3	104.3



Determine the best variety of forage sorghum for this producer to plant. Justify your decision with four pieces of evidence from the data.

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QUESTION 8 (3 marks)

Explain the term *cultural practice*. Give two examples of cultural practices used in a plant production system.

Do not write outside this box.

QUESTION 9 (5 marks)

Several key management issues can affect sustainable agricultural production.

a) Identify a management issue shown in the image. *[1 mark]*

b) Explain two processes that may have contributed to the issue identified in Question 9a). *[2 marks]*

Do not write outside this box.

c) Propose two solutions for the issue identified in Question 9a). *[2 marks]*

Do not write outside this box.

Section 2

Instructions

- This section has one question and is worth 15 marks.
- Respond in 300–350 words.

QUESTION 10 (15 marks)

Case study

A pastoral company is a 9000-ha sheep and cattle production system situated in southern Queensland in the wheat–sheep belt. It runs 26 000 merino sheep and 800 breeding cows. The land is predominantly native pastures and shrubs on sandy to loamy topsoils, with low fertility and poor water holding capacity. The annual average rainfall is 600 mm. A creek runs through the property and there are several permanent waterholes. There are some patches of soil erosion along the creek where livestock access the creek for drinking water.

The company is working to become carbon-neutral in support of the red meat industry goal of carbon neutrality by 2030. Carbon emission reduction strategies being used on the property include:

- genetics — using composite sires and breeding for early finishing in lambs
- lot feeding — reaching market compliance faster by moving to a feedlot situation for finishing
- productivity — using a combination of genetics and livestock management to increase wool production from 440 tonnes in 2018 to 800 tonnes in 2024
- vegetation and land management — using 20% of the land area for conservation and biodiversity. Most of this vegetation is contained to wildlife corridors 30 to 50 m wide. Larger paddocks have been cut up into smaller paddocks surrounded by shelterbelts. Creeks have all been fenced off and all paddocks now have permanent water sources, supplied by a combination of bore and dam water.

The company has an issue with flystrike in its sheep. Approximately 3% of the flock is affected annually, which is higher than the industry average of 1.5 to 2%. Stock is only purchased from known producers, and health declarations are essential for any incoming stock. The company keeps new animals in its quarantine paddock for a minimum of 10 days before they are introduced to new pastures, flocks and herds.

Currently, there is little control of run-off from the feedlot. Although the feedlot is scraped and the top layer of waste is removed, this does not often happen within the industry standard of every 13 weeks. Run-off is stockpiled on the farm and sometimes becomes odorous. The manager has reported that manure waste often ends up in the creek after storms.

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Refer to the case study.

Use three environmental management criteria to assess sustainable practices in the production system. For each criterion, analyse and justify three strengths and/or weaknesses.

Draw a justified conclusion about the sustainability of the production system.

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References

Question 1

Data sourced from AHEIA *Fresh Fruit and Vegetable Export/Import Statistics* (2017/18), https://www.ftalliance.com.au/data/news_attachments/1808%20aheia%20statistics%5B363944%5D.pdf

Question 4

Data from Table 4, Harris, K.D., Vanajah, T. and Puvanitha, S., 2018. 'Effect of foliar application of Boron and Magnesium on growth and yield of green chilli (*Capsicum annum* L.)'. A*GRIEAST: Journal of Agricultural Sciences*, 12(1), p.31. DOI: http://doi.org/10.4038/agrieast.v12i1.49

Question 5

Texas A&M University 2021, *Market when ready: Growth curves* in 'Meat science: Growth and development of meat animals', https://meat.tamu.edu/ansc-307-honors/growth.

Question 6

Data source Australian Eggs 2018, Annual Report 2018–19, p. 3 https://www.australianeggs.org.au/who-we-are/annual-reports, https://www.australianeggs.org.au/education/terms-and-conditions

Question 7

Data from AusWest Seeds and Stephen Pasture Seeds, 'Forage crops: Sorghum', www.ausweststephenseeds.com.au and https://www.pioneerseeds.com.au/our-products/summer-forage

Question 9

Image incorporates:
Fence posts: https://pixabay.com/photos/coupling-field-fence-fence-posts-3201429/
Vegetation, Matt Lavin 2013, https://www.flickr.com/photos/35478170@N08/8896227652 CC BY-SA
Windmill, https://pixabay.com/photos/windmill-western-texas-panhandle-2092692/
Wind erosion (Mallee Chickapook), https://omeka.cloud.unimelb.edu.au/cchc/items/show/5570 Public Domain

Question 10

Adapted from Meat & Livestock Australia 2019, 'Carbon-neutral pathways', *Feedback Magazine*, July/August, p. 20, https://v3au.zone-secure.net/drive/6703/1046011/#page=20
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