



# **AGRIBUSINESS**

## **ATAR course sample examination two**

### **Marking key**

Marking keys are an explicit statement about what the examining panel expect of candidates when they respond to particular examination items. They help ensure a consistent interpretation of the criteria that guide the awarding of marks.

## Section One: Multiple-choice

20% (20 Marks)

Question	Answer
1	b
2	a
3	b
4	d
5	c
6	c
7	b
8	a
9	b
10	d
11	d
12	a
13	c
14	d
15	c
16	c
17	a
18	b
19	d
20	d

Section Two: Short answer

50% (50 Marks)

Question 21

(11 marks)

(a) (i) Describe the innovation being used by the Dang family. (2 marks)

Description	Marks
Describes the innovation	2
Identifies the innovation	1
<b>Total</b>	<b>2</b>
Answers could include: <ul style="list-style-type: none"> <li>the Dang family have been using the oversupply of strawberries to produce freeze-dried fruit</li> <li>the farm has invested in a factory within the farm environment to take advantage of an opportunity in the lucrative freeze-dried fruit market.</li> </ul> Accept other relevant answers.	

(ii) Describe how the innovation solves a problem in production **and** adds value to their agribusiness. (4 marks)

Description	Marks
Describes how the innovation solves a problem	2
Identifies how the innovation solves a problem	1
<b>Subtotal</b>	<b>2</b>
Describes how the innovation adds value to their agribusiness	2
Identifies how the innovation adds value to their agribusiness	1
<b>Subtotal</b>	<b>2</b>
<b>Total</b>	<b>4</b>
Answers could include: <p>Solves a problem in production</p> <ul style="list-style-type: none"> <li>this innovation solves the problem of wastage</li> <li>fruit that is either oversized or undersized but otherwise perfectly good is still going to market.</li> </ul> <p>Adds value to their agribusiness</p> <ul style="list-style-type: none"> <li>the innovation creates an additional revenue stream for the family as they are able to earn income off fruit that would not been able to go to market</li> <li>the freeze dried fruit is a growing, lucrative market with a unit price higher than that of fresh fruit.</li> </ul> Accept other relevant answers.	

**Question 21** (continued)

- (b) Define the concept of a value chain and identify **one** stakeholder in the agribusiness value chain. (2 marks)

Description	Marks
Defines the concept of a value chain	1
Identifies a stakeholder in the agribusiness value chain	1
<b>Total</b>	<b>2</b>
<p>Answers could include:</p> <p>Definition: The process where an agribusiness brings a product or service from conception to distribution.</p> <p>Examples of stakeholders:</p> <ul style="list-style-type: none"> <li>• farmer associations</li> <li>• smallholder farmers</li> <li>• logistics companies</li> <li>• packaging companies</li> <li>• grocery stores</li> <li>• food and beverage companies.</li> </ul> <p>Accept other relevant answers.</p>	

- (c) Explain how the Dang family's involvement in the value chain improves product traceability. (3 marks)

Description	Marks
Explains how involvement in the value chain improves product traceability	3
Describes how involvement in the value chain improves product traceability	2
States a fact about product traceability	1
<b>Total</b>	<b>3</b>
<p>Answers could include:</p> <ul style="list-style-type: none"> <li>• product traceability refers to how possible it is to track products in an agribusiness's supply chain from production to the final customer</li> <li>• by making the value chain more traceable it becomes more sustainable and increases its integrity</li> <li>• the Dang family is able to maintain product traceability in a larger section of the value chain.</li> </ul> <p>Accept other relevant answers.</p>	

Question 22

(9 marks)

(a) Determine the following elements of an income statement.

(i) Calculate the net income for the period ending 31 December 2023. (1 mark)

Description	Marks
\$263,936	1
<b>Total</b>	<b>1</b>

(ii) Define expenses. (1 mark)

Description	Marks
the costs incurred in the operation of a business	1
<b>Total</b>	<b>1</b>
Accept other relevant answers.	

(b) Explain the purpose of an income statement. (3 marks)

Description	Marks
Explains the purpose of the income statement	3
Describes the purpose of the income statement	2
States a fact about the purpose of the income statement	1
<b>Total</b>	<b>3</b>
Answers could include: <ul style="list-style-type: none"> <li>• the income statement is a financial statement showing a firm’s sales revenue over a trading period and all the relevant costs generated to earn that revenue</li> <li>• a business will show income and expenses in the form of the income statement which gives important information about the profit or loss that the business has earned, which is also referred to as profitability</li> <li>• the income statement can be used for evaluating the profitability, financial position and liquidity of an agribusiness.</li> </ul>	
Accept other relevant answers	

## Question 22 (continued)

- (c) The dairy industry's average profit ratio is 0.14. Use the income statement on page 10 to analyse the profitability of Dairy R UZ. (4 marks)

Description	Marks
Analyses the profitability of Dairy R UZ with reference to the income statement	4
Explains how the profitability of Dairy R UZ is calculated with reference to the income statement	3
Describes factors that influence the profitability of an agribusiness	2
Defines profitability	1
<b>Total</b>	<b>4</b>
<p>Answer may include:</p> <ul style="list-style-type: none"> <li>profitability is the capacity of a business to be able to make a profit and if an investment will yield a return. The higher the income/revenue the more potential profitability exists for the business</li> <li>profitability may be influenced by fluctuations in prices for various inputs (such as feedstock, which have the highest share on expenditure, as well as the price volatility of the finished product (such as price of milk, cheese, yoghurt)</li> <li>profitability can be calculated using the profit ratio which is the profit divided by net sales</li> <li>Profit is equal to Total Revenue – Total Expenses = \$263,936</li> <li>Net Sales is equal to Milk sold + Calves sold = \$655,675 + 43,694 = \$699,369</li> <li>for Dairy R UZ the profit ratio can be determined as \$263,936 divided by \$699,369 equals 0.38</li> <li>this means that Dairy R UZ's profitability is higher than the industry average of 0.14.</li> </ul>	
Accept other relevant answers.	

Question 23

(9 marks)

- (a) Explain the purpose of a business plan for Sally's potential purchase of Bell and Flora. (3 marks)

Description	Marks
Explains the purpose of a business plan for Sally's potential purchase of Bell and Flora	3
Describes the purpose of a business plan for Sally's potential purchase of Bell and Flora	2
States a fact about the purpose of a business plan for Sally's potential purchase of Bell and Flora	1
<b>Total</b>	<b>3</b>
Answers could include: <ul style="list-style-type: none"> <li>a business plan is a detailed outline of goals and how future operations, financing, marketing and management will assist in achieving the aims of the business</li> <li>a business plan is often prepared when a new business is being established</li> <li>business owners may require detailed information about the future strategic plan of an agribusiness</li> <li>Sally needs a business plan as she is hoping to be eligible to secure finance from a bank.</li> </ul>	
Accept other relevant answers.	

- (b) Explain the purpose of the following **two** elements of a business plan in the context of Bell and Flora. (6 marks)

Description	Marks
For each element of a business plan (2 x 3 marks)	
Explain each of the elements in the context of Bell and Flora	3
Describes each of the elements in the context of Bell and Flora	2
States a fact about each of the elements	1
<b>Total</b>	<b>6</b>
Answers could include: <p>Business objectives</p> <ul style="list-style-type: none"> <li>this section states quantifiable goals of the proposed business and details the goods and/or services on offer</li> <li>shows where and how production will take place for example, the type of equipment needed</li> <li>details the suppliers of the resources such as raw materials or components</li> <li>states the pricing strategies to be used and outlines how these will help the business achieve its goals</li> <li>Sally is planning to buy and expand Bell and Flora.</li> </ul> <p>Staffing requirements</p> <ul style="list-style-type: none"> <li>ensures there is a match between the needs of the business and the required expertise to successfully run the business</li> <li>provides an explanation of the main roles of each of the senior employees within the business and the expenditure on wages for those employees</li> <li>identifies the skillsets of potential new employees, how they will be recruited and the training requirements to ensure they are ready to contribute to the business</li> <li>Sally has been advised that she needs to employ at least five new staff members in the first year if her ownership and she would ensure her staffing requirements align with the business goals of Bell and Flora.</li> </ul>	
Accept other relevant answers.	

Question 24

(12 marks)

- (a) Explain the concept of price elasticity of supply, with reference to the wheat market. (3 marks)

Description	Marks
Explains the concept of price elasticity of supply with reference the wheat market	3
Explains the concept of price elasticity of supply	2
States a fact about the concept of price elasticity of supply	1
<b>Total</b>	<b>3</b>
Answers could include: <ul style="list-style-type: none"> <li>price elasticity of supply refers to the responsiveness of quantity supplied to a change in the price of a product</li> <li>a product with inelastic supply has a small change in quantity supplied when price changes</li> <li>a product with elastic supply has a large change in quantity supplied when price changes</li> <li>characteristics of goods that are supply inelastic are those with little spare capacity, there is limited ability to switch production of goods, and those with a long production period</li> <li>in the wheat market, farmers cannot plant more wheat, once they have information that suggests the price of wheat is about to increase, due to spatial constraints.</li> </ul> Accept other relevant answers.	

- (b) (i) Draw a demand and supply model for the market for wheat. (2 marks)

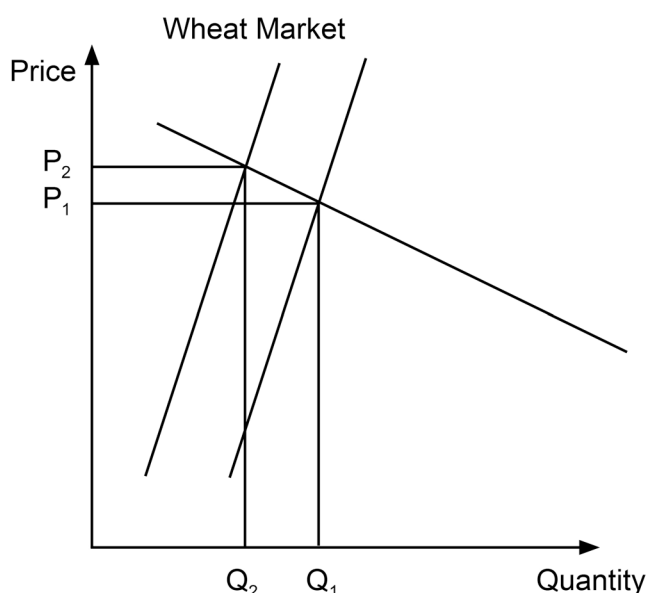
Description	Marks
Correctly labelled and detailed demand and supply model	2
Demonstrates a partly correct demand and supply model showing an inelastic supply curve	1
<b>Total</b>	<b>2</b>



- (ii) On your model, demonstrate and describe the impact of a drought on the supply of wheat. (4 marks)

Description	Marks
Correctly labelled and detailed demand and supply model showing a decrease in supply on inelastic supply curve	2
Demonstrates a partly correct demand and supply model	1
<b>Subtotal</b>	<b>2</b>
<b>Description of model</b>	
Describes how drought causes an increase in price and a decrease in quantity supplied	2
Identifies that drought causes a decrease in supply	1
<b>Subtotal</b>	<b>2</b>
<b>Total</b>	<b>4</b>

Answer could include:



Demand and supply model

- drought causes a decrease in the supply of wheat
- this leads to an increase in priced wheat ( $P_1 \rightarrow P_2$ ) and a decrease in the quantity of wheat supplied ( $Q_1 \rightarrow Q_2$ ).

- (c) Explain **one** reason why wheat producers are price takers. (3 marks)

Description	Marks
Explains a reason why wheat producers are price takers	3
Describes a reason why wheat producers are price takers	2
States a fact about why wheat producers are price takers	1
<b>Total</b>	<b>3</b>

Answers could include:

- price takers are businesses that must accept the prevailing prices in a market as they are unable to influence the market price on their own
- this could be due to the large amount of market competition which exists in the commodity industry
- this could also be due to commodity producers having a low percentage of market share which means they do not have any pricing power in the market
- another reason could be due to commodity products being largely homogenous.

Accept other relevant answers.

## Question 25

(9 marks)

Explain the following **three** pricing strategies in the context of an agribusiness you have studied.

Description	Marks
For each pricing strategy (3 x 3 marks)	
Explains the pricing strategy in the context of an agribusiness case study	3
Describes the pricing strategy in the context of an agribusiness case study	2
States a fact about the pricing strategy	1
<b>Total</b>	<b>9</b>
<p>Answers could include:</p> <p>Skim</p> <ul style="list-style-type: none"> <li>used for technologically advanced and innovative products</li> <li>new product development can be very expensive, and so a high price is set to recoup the costs of research and development. Skimming can also create a unique, high quality or prestigious image for the product</li> <li>due to the high potential profits that can be made, other firms will eventually be attracted to the industry. When this happens, the original firm will skim (gradually reduce) its price.</li> </ul> <p>Penetration</p> <ul style="list-style-type: none"> <li>used to help establish a new product in the industry by setting a relatively low price (or a special introductory price) to gain brand recognition and market share. As the product establishes itself over time, the price can be raised</li> <li>this strategy is suitable for mass market products that sell in large enough volumes to sustain low profit margins</li> <li>a potential problem is that setting prices too low can mean that customers perceive the product as inferior and poor quality.</li> </ul> <p>Premium/Prestige</p> <ul style="list-style-type: none"> <li>premium/prestige pricing strategy is where an agribusiness sets a higher 'premium' price for their good or service so that it is perceived by the customer as a luxury product</li> <li>the quality of the product may not be superior, but the nature of the marketing gives the impression of higher quality targeting a niche market of more affluent consumers.</li> </ul>	
Accept other relevant answers.	

Section Three: Extended answer

30% (30 Marks)

Question 26

(15 marks)

- (a) Describe and account for **two** trends in the agricultural workforce shown in the infographic on page 18. (6 marks)

Description	Marks
For each trend (2 x 3 marks)	
Describes and accounts for a trend in the agricultural workforce shown in the data	3
Describes a trend in the agricultural workforce shown in the data	2
Identifies a trend in the data	1
<b>Subtotal</b>	<b>3</b>
<b>Total</b>	<b>6</b>
<p>Answers could include:</p> <p>Size of agricultural workforce</p> <ul style="list-style-type: none"> <li>• has decreased from 287,597 to 228,372 between 2001 and 2016</li> <li>• this may have occurred due to the amalgamation of properties or the mechanisation of farm work requiring fewer employees.</li> </ul> <p>Number of owner-operators</p> <ul style="list-style-type: none"> <li>• the number of owner-operators have decreased from 56% of employees in 2001 to 37% of employees in 2016</li> <li>• farmland is being purchased by corporations in Australia and overseas, reducing the proportion of farms being operated by their owners.</li> </ul> <p>Age of owner-operators</p> <ul style="list-style-type: none"> <li>• has increased from 51 in 2011 to 56 in 2016</li> <li>• this is because new farm owners have been increasingly from overseas and corporations that have not pursued an owner-operator model</li> <li>• therefore existing owner-operators have aged and few younger owner-operators have entered the market.</li> </ul>	
Accept other relevant answers.	

## Question 26 (continued)

- (b) Explain **three** factors that have contributed to the changing nature of employment opportunities in the agricultural industry. (9 marks)

Description	Marks
For each factor (3 x 3 marks)	
Explains a factor that has contributed to the changing nature of employment opportunities in the agricultural industry	3
Describes a factor that has contributed to the changing nature of employment opportunities in the agricultural industry	2
Identifies a factor that has contributed to the changing nature of employment opportunities in the agricultural industry	1
<b>Subtotal</b>	<b>3</b>
<b>Total</b>	<b>9</b>
<p>Answers could include:</p> <p><b>Mechanisation of agricultural production</b></p> <ul style="list-style-type: none"> <li>• more farms are substituting labour for capital in their production process</li> <li>• decrease in demand for agricultural labourers</li> <li>• the nature of employment may shift from agricultural labourers to an increase in demand for service providers for the mechanised inputs</li> <li>• this moves the demand for employment to elsewhere in the value chain but maintains the employment in the agribusiness environment.</li> </ul> <p><b>Changing access to migrant workers</b></p> <ul style="list-style-type: none"> <li>• between 2001 and 2016 non-citizen workers have increased threefold for low-skilled jobs</li> <li>• changes to the holiday maker visa program has reduced the requirement for applicants to complete regional/rural employment</li> <li>• during the pandemic access to migrant workers reduced creating greater demand for local workers</li> <li>• Pacific Islander visa opportunities increased in mid-2021 to fill the additional demand created by the loss of access to working holiday visa holders</li> <li>• federal government adjusted visa conditions for existing migrant workers to remain in employment beyond their visa expiry date to continue working in areas of high demand.</li> </ul> <p><b>Educational attainment</b></p> <ul style="list-style-type: none"> <li>• the agricultural workforce has a lower level of post-secondary educational attainment than most other sector workforces</li> <li>• younger workers in the sector tend to have higher educational attainment than older workers</li> <li>• owner-operator and unpaid family worker classes have the lowest levels of educational attainment</li> <li>• as a phasing out of owner-operators in the industry occurs, the levels of educational attainment will increase</li> <li>• increased demand for agricultural and environmental scientists and those with a management and commerce qualification within the sector has seen educational attainment increase.</li> </ul>	
Accept other relevant answers.	

Question 27

(15 marks)

- (a) Describe **two** forms of protection that the Australian Government may use in the international trade of food and fibre products. Provide an example for your chosen forms of protection. (6 marks)

Description	Marks
For each form of protection (2 x 3 marks)	
Describes a form of protection with an example	3
Describes a form of protection	2
Identifies one form of protection	1
<b>Total</b>	<b>6</b>
<p>Answers could include:</p> <p><b>Tariffs</b></p> <ul style="list-style-type: none"> <li>• direct taxes the government imposes on imported goods, making them more expensive to domestic markets</li> <li>• for example, 5% tariff on potatoes in the Korea-Australia Free Trade Agreement.</li> </ul> <p><b>Duties</b></p> <ul style="list-style-type: none"> <li>• taxes that the government imposes on the producers of imported goods</li> <li>• for example, the Wine Equalisation Tax.</li> </ul> <p><b>Subsidies</b></p> <ul style="list-style-type: none"> <li>• financial support given by the government to individual firms or industries to make them competitive against imported goods and/or services</li> <li>• for example, government support for the sugar industry to target an environmental outcome rather than production outcome.</li> </ul> <p><b>Quotas</b></p> <ul style="list-style-type: none"> <li>• the government places a measurable limit on the quantity of a good that can be imported into a country</li> <li>• for example, the United States imposes a quota on the amount of beef they can import from Australia. Australia does not use quotas.</li> </ul>	
Accept other relevant answers.	

**Question 27** (continued)

- (b) With reference to the above information and examples you have studied, discuss **three** arguments for **or** against government intervention in agribusiness. (9 marks)

Description	Marks
Arguments for or against government involvement (3 x 3 marks)	
Discusses one argument for or against government intervention	3
Describes one argument for or against government intervention	2
States a fact about one argument for or against government intervention	1
<b>Total</b>	<b>9</b>
<p>Answers could include:</p> <p>Arguments in support of government intervention:</p> <p><b>Market regulation</b> Regulating agricultural markets encourages fair competition, prevent monopolies, and stabilises prices. By implementing policies that curb unfair trade practices and market manipulations, the government facilitates a more stable and predictable environment for agribusinesses. This is important for farmers who may face fluctuations in food and fibre prices or market demand.</p> <p><b>Research and development</b> Funding for agricultural research helps agribusinesses adopt innovative technologies, sustainable practices, and improved crop varieties. This support enhances the overall productivity and competitiveness of the agribusiness sector, contributing to long-term economic growth and resilience.</p> <p>Arguments against government intervention:</p> <p><b>Bureaucracy</b> Government involvement, including regulatory complexities, can limit innovation and entrepreneurship in agribusiness. Excessive regulations may impose administrative and economic burdens, making it difficult for small and medium-sized agribusinesses to comply with regulatory requirements. In turn, this can limit their ability to adapt to changing market conditions and adopt new technologies.</p> <p><b>Market distortion</b> Excessive government intervention can lead to market distortions and inefficiencies. Subsidies, price controls, and other interventions may create artificial market conditions, discouraging the efficient allocation of resources. This can result in overproduction, misallocation of resources, and a lack of responsiveness to market signals, ultimately hindering the competitiveness of agribusinesses.</p> <p>Accept other relevant answers.</p>	

Question 28

(15 marks)

- (a) With reference to the text, describe **three** ways the government is involved in environmental protection. (6 marks)

Description	Marks
For each way (3 x 2 marks)	
Describes one way the government is involved in environmental protection with reference to the text	2
Identifies one way the government is involved in environmental protection	1
<b>Total</b>	<b>6</b>
<p>Answers could include:</p> <ul style="list-style-type: none"> <li>• screens, inspects and clears millions of mail parcels, cargo containers, plants and animals, and people</li> <li>• uses x-ray machines</li> <li>• pre and post quarantine surveillance programs</li> <li>• use of detector dogs at the boarder</li> <li>• establish import controls – requirement for the declaration of plant material and animal products and permission is required to ensure that potential biosecurity risks are managed</li> <li>• conduct routine or random inspections – Department of Agriculture clears cargo arriving in Australia and ensures they meet biosecurity arrangements. Some goods are randomly inspected to ensure the integrity of the biosecurity system</li> <li>• provide quarantine services – the service prevents the introduction of invasive pests, diseases and weeds from across Australia or overseas</li> <li>• surveillance and monitoring of high risk areas, risk assessments and livestock movement and identification</li> <li>• sharing international resources and intelligence.</li> </ul> <p>Accept other relevant answers.</p>	

## Question 28 (continued)

- (b) With reference to the text and examples you have studied, analyse current management practices that promote economic, social and environmental indicators of sustainability within an agribusiness. (9 marks)

Description	Marks
For each economic, social and environmental indicator (3 x 3 marks)	
Analyses a current management practice that promotes sustainability within agribusiness	3
Describes a current management practice that promotes sustainability within agribusiness	2
Identifies a current management practice that promotes sustainability within agribusiness	1
<b>Total</b>	<b>9</b>
<p>Answers could include:</p> <p><b>Social sustainability</b></p> <ul style="list-style-type: none"> <li>• implement strict quarantine measures for livestock and crops in response to a disease outbreak, restricting movement to contain the spread and protect public health</li> <li>• engage with local communities transparently and involve them in decision-making including holding community forums to disseminate information about the biosecurity risk, explain planned interventions, and gather feedback from local residents</li> <li>• provide support to affected communities during biosecurity crises. Establish community support programs, offering financial aid, counselling services, or assistance with recovery efforts to help individuals and businesses affected by biosecurity-related disruptions.</li> </ul> <p><b>Economic sustainability</b></p> <ul style="list-style-type: none"> <li>• balance quick and effective responses with economic viability. Invest in advanced technologies for early detection and rapid response to biosecurity threats, minimising the impact on production while efficiently containing the spread of the threat</li> <li>• ensure a resilient and diversified supply chain to adapt to disruptions. Develop partnerships with multiple suppliers and distributors to diversify sourcing and distribution channels, reducing vulnerability to disruptions caused by biosecurity events</li> <li>• have contingency plans in place for the continuity of production. Establish a comprehensive business continuity plan that includes alternative production sites, emergency response teams, and stockpiles of essential resources, ensuring the ability to maintain operations during a biosecurity crisis.</li> </ul> <p><b>Environmental sustainability</b></p> <ul style="list-style-type: none"> <li>• minimise environmental impact of control measures (e.g. pesticides, herbicides). Use targeted and environmentally friendly pest control methods, such as introducing natural predators or employing biological control agents, to minimise the need for chemical pesticides</li> <li>• adopt sustainable agricultural practices, such as integrated pest management and organic farming. Implement integrated pest management strategies that involve crop rotation, companion planting, and the use of beneficial insects to control pests, reducing reliance on synthetic pesticides and fertilisers</li> <li>• invest in research and development for environmentally friendly solutions. Allocate resources to research projects focused on developing and improving sustainable farming techniques, such as precision agriculture or the use of biopesticides, to minimise the environmental impact of agricultural practices.</li> </ul> <p>Accept other relevant answers.</p>	



## ACKNOWLEDGEMENTS

### Question 22

Dot point 2 adapted from: Chetroiu, R., Cişmileanu, A. E., Cofas, E., et al. (2022, June 18). Assessment of the Relations for Determining the Profitability of Dairy Farms, A Premise of Their Economic Sustainability. *Sustainability* 2022, 14(12). Retrieved August, 2024, from <https://www.mdpi.com/2071-1050/14/12/7466#B14-sustainability-14-07466>  
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