

ATAR course examination, Semester 1, 2017

ECONOMICS
ATAR Year 11

Marking key

Section One: Multiple-choice

30% (30 Marks)

This section has **24** questions. Answer **all** questions on the separate Multiple-choice answer sheet provided. For each question, shade the box to indicate your answer. Use only a blue or black pen to shade the boxes. If you make a mistake, place a cross through that square, then shade your new answer. Do not erase or use correction fluid/tape. Marks will not be deducted for incorrect answers. No marks will be given if more than one answer is completed for any question.

Suggested working time: 30 minutes.

1. Which of the following issues would be investigated by a macroeconomist?
 - a) The spending patterns of 16 year old Australians
 - b) The demand for iron ore by Chinese steel mills
 - c) The determinants of unemployment in Australia**
 - d) The role of business confidence in levels of health investment

2. Normative economics involves
 - a) The study of the normal equilibrium state of the economy
 - b) Investigation of the most appropriate targets for key indicators**
 - c) Research into the causes of structural unemployment
 - d) Calculation of the opportunity cost incurred when decisions are made

3. Which of the following isn't a necessary characteristic of a market?
 - a) Markets must be located in one physical place, such as the Australian Stock Exchange or a weekend farmers' market**
 - b) Markets must have at least one seller and at least one buyer to operate
 - c) Prices act to coordinate resource allocation in markets, with higher prices typically attracting more supply
 - d) Free markets achieve efficient outcomes through the interaction of demand and supply

4. Which of the following items would not have its price determined in a factor market?
 - a) Machinery for a new factory
 - b) Skilled labour to work on the construction of a new city office block
 - c) Land being sold to a housing developer
 - d) A four-wheel-drive to be used for city driving by a family**

5. The opportunity cost of a vanilla ice cream cone is
 - a) A chocolate ice cream cone
 - b) A piece of apple pie
 - c) A burger
 - d) All of the above are possible**

6. The table below shows the possible combinations of two goods that can be produced in one country.

Combination	Xerks	Yarbles
A	0	50
B	10	30
C	20	15
D	30	5
E	40	0

The opportunity cost of moving from combination B to D is

- a) **25 Yarbles**
 - b) 20 Xerks
 - c) 30 Yarbles
 - d) 10 Xerks
7. Which of the following could cause a PPF to shift outwards?
- a) An increase in annual recreation leave for the national workforce
 - b) **An increase in immigration to the country**
 - c) A decrease in the retirement age
 - d) Migration of unskilled workers to other countries
8. Across the macroeconomy, an increase in savings will lead to
- i. an increase in firms' inventories
 - ii. an increase in employment
 - iii. a decrease in aggregate output
 - iv. a decrease in spare capacity
- a) **i and iii**
 - b) ii and iv
 - c) i, ii and iii
 - d) ii, iii and iv
9. If, in a particular period of time, $Y = 4000$, $C = 3000$, $S = 1000$ and $I = 800$, then it is likely that
- a) There will be no change in the level of output in the next period
 - b) **The amount of income earned in the next period will fall**
 - c) The amount of income earned in the next period will remain the same
 - d) The amount of output produced in the next period will rise

10. Which of the following would be considered incorrect in the context of the circular flow of income?
- a) **Firms' capital includes the amount of money they have available**
 - b) Households earn profit when they contribute enterprise to the production process
 - c) Firms' land includes endangered species of birds nesting in their factory eaves
 - d) Households earn dividends when they sell capital to firms
11. Consider the demand for biscuits. Which of the following situations represents the substitution effect of a fall in the price of biscuits?
- a) An increase in the demand for biscuits as consumers buy less cake
 - b) A decrease in the demand for biscuits as consumers buy more cake
 - c) A contraction in the demand for biscuits as consumers buy more cake
 - d) **An expansion in the demand for biscuits as consumers buy less cake**
12. Which of the following does not help explain the slope of the demand curve?
- a) Consumers' real incomes falling as prices rise
 - b) Consumers shifting to cheaper substitutes as prices rise
 - c) Consumers' marginal benefit falling as quantity rises
 - d) **Consumers' time preference falling as quantity rises**
13. The supply of sneakers would increase if
- a) Advertising became more expensive
 - b) **Wages fell**
 - c) Socks became cheaper
 - d) The Dolce & Gabbana models at Paris Fashion Week wore sneakers
14. Suppose that felt hats and leather gloves are complements. If the technology for producing felt hats improves, then it is likely that
- a) The price of both felt hats and leather gloves will fall
 - b) The price of both felt hats and leather gloves will rise
 - c) The price of felt hats will rise, but the price of leather gloves will fall
 - d) **The price of felt hats will fall, but the price of leather gloves will rise**
15. Suppose that farmland can be used to produce sugarcane or bananas. Which of the following would lead to a decrease in supply of sugarcane?
- a) A fall in the price of bananas
 - b) **A rise in the price of bananas**
 - c) A fall in the price of sugarcane
 - d) A rise of the price of sugarcane

16. Consider the market for truffles. If the winter rainfall around Manjimup is unusually low and truffle farms in the area record low production levels, then it is likely that in the market for caviar, a substitute for truffles, there will be

- a) **A rise in price and a rise in quantity traded**
- b) A rise in price and a fall in quantity traded
- c) A fall in price a rise in quantity traded
- d) A fall in price and a fall in quantity traded

17. In any market, if the marginal cost of producing the last unit sold is greater than the marginal benefit of creating it, then the market is

- a) Producing the efficient quantity, as total cost is greater than total benefit
- b) Over-producing but efficient as long as marginal benefit is less than marginal cost on the last unit produced
- c) Under-producing and should raise the quantity produced to improve efficiency
- d) **Over-producing and should lower the quantity produced to improve efficiency**

18. Technical efficiency involves

- a) Minimising waste by using resources in the area where they have the most value
- b) **Maximising output by combining resources in the most productive manner**
- c) Adapting the use of resources in response to changing conditions
- d) Adopting new technology by substituting capital for labour

19. Imposing a price which is greater than the equilibrium price will lead to

- a) An undersupply or shortage in the quantity produced
- b) A decrease in supply as producers attempt to maximise profit
- c) An increase in supply as producers respond to higher prices
- d) **An inefficient allocation of resources and a surplus in supply**

20. Antoinette's demand schedule for Justin Bieber concert tickets is shown below.

Price (\$)	Qty demanded
500	1
400	2
300	3
200	4

What is Antoinette's consumer surplus if she buys four tickets for \$100 each?

- a) \$400
- b) \$600
- c) \$800
- d) **\$1000**

21. The implementation of a price ceiling below the equilibrium price implies that
- a) Producer surplus will increase at the expense of eroded consumer surplus
 - b) Deadweight loss will be zero as the total surplus is constant but is redistributed in favour of consumers
 - c) Deadweight loss is reduced by the price ceiling, and sellers over-produce in response to the change in price
 - d) **Consumer surplus will increase at the expense of eroded producer surplus**
22. Suppose that Jenny and Melissa each earn an income of \$98,000, but Melissa pays \$10,000 more in tax than Jenny does. Ceteris paribus, an economist would describe this situation as being
- a) Marginally inefficient
 - b) Summatively inefficient
 - c) Vertically inequitable
 - d) **Horizontally inequitable**
23. An uncompensated negative production externality results in
- a) A higher quantity being traded at a higher price than socially optimal
 - b) **A higher quantity being traded at a lower price than socially optimal**
 - c) A lower quantity being traded at a higher price than socially optimal
 - d) A lower quantity being traded at a lower price than socially optimal
24. Which of the following trade practices would not be targeted by the ACCC?
- a) Collusive tendering
 - b) Resale price maintenance
 - c) **Price discrimination**
 - d) Predatory pricing
25. Suppose that there are only two firms in a market, and they are planning to merge to create 1 firm. Economists would be concerned that this may lead to
- a) **Lower output and a higher price**
 - b) Higher output and a lower price
 - c) Higher output and a higher price
 - d) Lower output and a lower price
26. A monopolistically competitive industry is characterised by
- a) **A large number of firms producing slightly differentiated products**
 - b) One firm producing a completely differentiated product
 - c) Significant barriers to the entry of new firms into the industry
 - d) Firms able to earn supernormal profits

27. Which of the following is not a feature of perfectly competitive markets?

- a) **Differentiated products**
- b) Many buyers
- c) Many sellers
- d) **Barriers to entry**

28. If a beekeeper's bees pollinate the neighbouring orchard, this would be an example of a

- a) Positive consumption externality
- b) Negative consumption externality
- c) **Positive production externality**
- d) Negative production externality

29. Common resources are

- a) Rival and excludable
- b) **Rival and non-excludable**
- c) Non-rival and excludable
- d) Non-rival and non-excludable

30. Which of the following would be subject to free riders?

- a) Public transport
- b) Cinema tickets
- c) **National defence**
- d) A private beach

Question 31

(12 marks)

The table below gives production possibility combinations for a country producing wheels and axles.

Production possibility	Wheels	Axles
A	0	100
B	25	75
C	50	50
D	75	25
E	100	0

- a) List the assumptions of the production possibility frontier. (2 marks)

2 goods	1: ½ mark
fixed resources	2: 1 mark
fixed technology	3: 2 marks

- b) In the space below, construct a production possibility frontier from the information provided in the table. (2 marks)

axes and points labelled, points correctly plotted	1 – 2 marks
-1 mark for each error	

- c) Calculate the opportunity cost of moving from point D to point C. (1 mark)

25 wheels (must state wheels)	1 mark
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- d) Label a point F corresponding to the production of 25 wheels and 25 axles. Explain the significance of operating at this point. (2 marks)

Point correctly plotted	½ mark
Inside the curve – resources not fully employed	1 mark
Not maximising output (or standard of living)	½ mark

- e) Label a point G corresponding to the production of 75 wheels and 50 axles. Explain the significance of operating at this point. (2 marks)

Point correctly plotted	½ mark
Outside the curve - unattainable	1 mark
Need additional (or better) resources or technology	½ mark

f) Explain the significance of the slope of this PPF.

(3 marks)

Straight line	1 mark
Opportunity cost is constant	1 mark
All resources have equivalent skill sets	1 mark

Australians feed Singapore’s appetite for broccoli

The Australian
23 May 2017

President George W. Bush famously hated it but it seems most of the world can’t get enough broccoli.

Particularly affluent consumers [live] in Singapore, where 70 per cent of Australia’s \$8.2 million export broccoli crop was flown in and sold fresh last year. It’s a niche demand that southern Queensland vegetable grower Troy Qualischefski is more than happy to meet, with passenger planes flying from Brisbane airport carrying 8kg boxes of his fresh broccoli in their freight holds two or three times a week.

His Qualipac broccoli sells for about \$10/kg in Singapore, with well-off local Chinese and expats rushing to buy Australian-grown fresh fruit and vegetables rather than cheaper product mainly from China, where proper chemical use and food safety are hard to guarantee.

Now about 30 per cent of the 8000 tonnes of irrigated broccoli grown each year by Mr Qualischefski and his brother Bradley — they are among the country’s biggest growers — is destined for export markets in Southeast Asia and the Middle East.

It’s a similar story across Australia, with exports of broccoli nationally soaring by 21 per cent on the back of growing Singapore demand, more affordable airfreight options and the recent resumption of exports to Japan. Currently only 6 per cent, or \$277m worth of Australia’s \$3.7 billion total vegetable crop is exported, although for broccoli the figure is closer to 10 per cent.

<http://www.theaustralian.com.au/business/australians-feed-singapores-appetite-for-broccoli/news-story/bf1c7e7447ee65b2414ba87b640575af>
[Accessed 23 May 2017]

- a) According to the article, what was the value of Australia’s export broccoli crop in 2016? (1 mark)

\$8.2 million (must have “\$” and “million”)	1 mark
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- b) With reference to a suitable diagram, explain how the expansion of markets in Southeast Asia and the Middle East would affect the supply of broccoli produced in Australia. (3 marks)

Correctly labelled diagram showing increase in supply (demand not needed)	1 mark
Increase in supply from S0 to S1	1 mark
Reasoning: broccoli production is becoming more profitable	1 mark

- c) Many Australia vegetable farmers must decide between growing green beans or broccoli. Explain how the developments in the export market for broccoli would affect the supply of green beans. (3 marks)

Green beans & broccoli are substitutes in production	1 mark
Decrease in supply of green beans	1 mark
Reasoning: green beans are relatively less profitable	1 mark

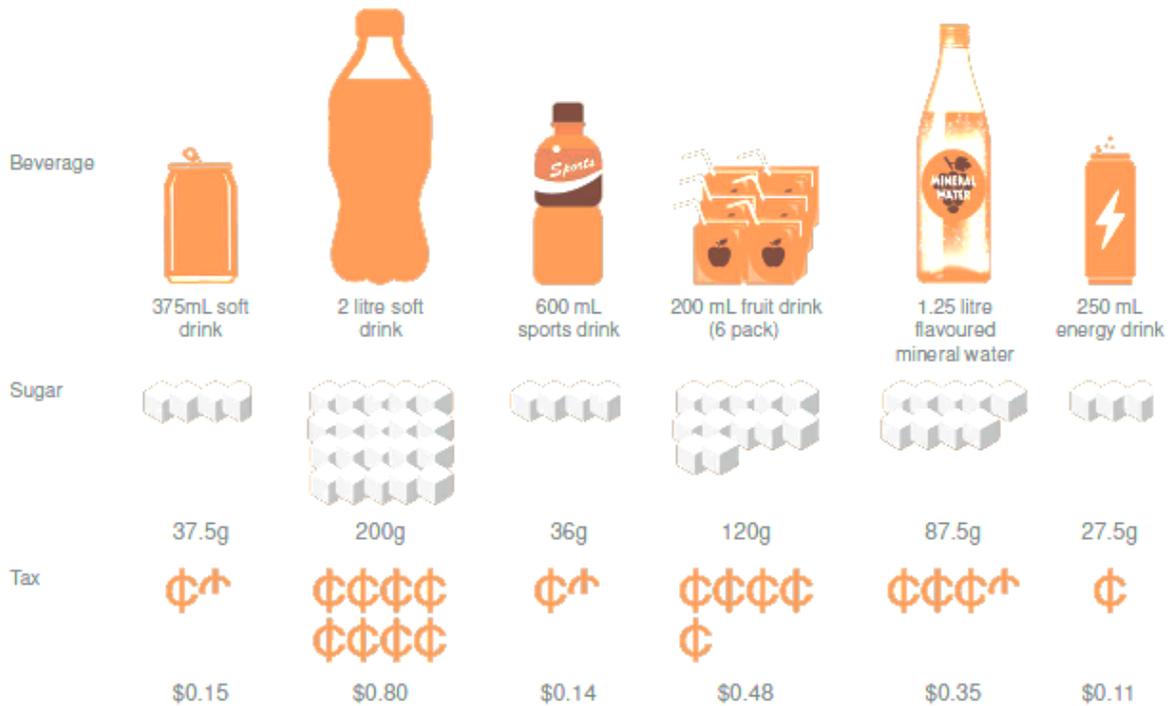
- d) Discuss the impact that the changes identified in part c would have on the market for green beans in Australia. (5 marks)

Decrease in supply leads to lower quantity, higher price	2 marks
Diagram (optional – not specified by question)	1 mark
Explanation of diagram (needs to be particularly detailed for 3 marks)	3 marks

Question 33

(12 marks)

Impact of a tax of 40 cents per 100 grams of sugar found in sugar-sweetened beverages



Grattan Institute, *A Sugary Drinks Tax* (November 2016), p. 41

- a) According to the figure above, by how much would the price of a 2 litre bottle of soft drink rise if the proposed tax is introduced? (1 mark)

\$0.80	1 mark
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- b) Explain two reasons why the government might choose to implement a tax on added sugar in drinks. (4 marks)

Possible reasons include:

Combat a negative externality (could link to obesity or other health issues, or pollution in the production process, etc)	2 marks
Gain revenue	2 marks
Political arguments – trying to gain votes	2 marks
Trying to encourage substitute industries	2 marks

- c) With reference to a suitable diagram, discuss the impact that this tax would have on the efficiency of the market for sugar-sweetened beverages. (7 marks)

Correctly labelled diagram showing implementation of a tax	2 marks
Definitions: efficiency, CS, PS, DWL	1 mark
Changes in price and quantity traded	1 mark
Changes in CS, PS, DWL	1 mark
Area of government tax revenue	1 mark
Conclusion: efficiency falls	1 mark

Question 34

(14 marks)

China's air pollution crisis shows no sign of ending as nation fails to lower coal use

ABC News
10 January 2017

For weeks northern China has been covered in a thick toxic smog. It is one of the worst episodes of air pollution the country has seen, affecting 460 million people... coal is estimated to cause about 40 per cent of the smog in the nation's capital.

Cheap coal has powered China's economic miracle and still provides 70 per cent of the country's energy. The Government is reluctant to wean itself off coal, fearing unemployment and unrest.

And there is good reason to be concerned — studies suggest more than one million people die prematurely every year from the toxic air that has engulfed northern China.

China's addiction to coal shows no signs of slowing. China produces and consumes more coal than the rest of the world combined.

But the biggest air polluters are the coal-fired power stations that ring Beijing. There are about 22 major plants, working overtime to service the increase in production of steel and cement and also to provide additional electricity to the cities and homes in northern China during the winter months.

- a) According to the article, why are coal-fired power stations currently “working overtime”? (1 mark)

Need 1 of:

To service the increase in production of steel and cement	1 mark
Providing additional electricity in the winter months	1 mark

- b) Define market failure. (1 mark)

Free market outcome is not socially optimal	1 mark
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- c) With reference to a suitable diagram, explain why the production of electricity in coal-fired power stations in China is causing market failure. (6 marks)

Diagram showing negative production externality	2 marks
Free market outcome	1 mark
Socially optimal outcome	1 mark
Negative externality: discrepancy between S_p and S_s	1 mark
Link coal-fired power stations to pollution	1 mark

- d) Discuss two possible strategies that the Chinese government could use to address the issues caused by coal-fired power stations. (6 marks)

2 of:

Tax to align S_p and S_s (raises costs of production, supply decreases)	3 marks
Assign property rights (Coase theorem)	3 marks
Regulatory measures (legislation) to control firms' activities	3 marks

Section Three: Extended answer

20% (20 Marks)

Question 35

(20 marks)

- a) Evaluate the importance of the profit motive in determining equilibrium levels of expenditure, output and income. (8 marks)

Define E, O, Y	1 mark
E = O: profit motive	2 marks
O = Y: resource use	2 marks
E = Y: 2 sector model (no savings or other leakages)	2 marks
Conclusion: profit motive is a key determinant but not the only one	1 mark

- b) Discuss the impact that changes in leakages and injections will have on the level of macroeconomic equilibrium. (12 marks)

Define macroeconomic equilibrium (optional but encouraged)	
Identify leakages: S, T, M	1 mark
Identify injections: I, G, X	1 mark
Decrease in leakages: increase in consumption, decrease in inventories, firms revise production plans upwards, employment & incomes rise, equilibrium E, O, Y rise	4 marks
Opposite also holds for increase in leakages	1 mark
Decrease in injections: decrease in spending on Aust-made items, increase in inventories, firms revise productions plans downwards, employment & incomes fall, equilibrium E, O, Y fall	4 marks
Opposite also holds for increase in injections	1 mark

Question 36

(20 marks)

- a) With reference to suitable diagrams, explain how overproduction and underproduction impact the efficiency of free markets. (12 marks)

Definitions: efficiency, CS, PS, DWL	1 mark
Free market equilibrium: diagram & explanation	2 marks
Underproduction: diagram & explanation	4 marks
Overproduction: diagram & explanation	4 marks
Conclusion: efficiency maximised iff at equilibrium	1 mark

- b) Discuss the reasons why the government may choose to implement a price floor on inner-city parking, and the impact this floor will have on the efficiency of the market if the government is unable to support the floor by purchasing surplus units. (8 marks)

Define price floor, reasons for implementing price floor: encourage people to take public transport, or support parking suppliers (or similar argument)	2 marks
Price floor diagram	2 marks
Change in price & quantity traded	1 mark
Change in CS & PS, area of DWL (must link to MC & MB)	2 marks
Reduces efficiency of the market	1 mark