



South Australian  
Certificate of Education

# Economics 2021

## Question booklet 1

- Questions 1 and 2 (35 marks)
- Answer **all** questions
- Write your answers in this question booklet
- You may write on page 8 if you need more space
- Allow approximately 65 minutes

## Examination information

### Materials

- Question booklet 1
- Question booklet 2
- SACE registration number label

### Instructions

- Use black or blue pen

**Total time:** 130 minutes

**Total marks:** 70

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Attach your SACE registration number label here

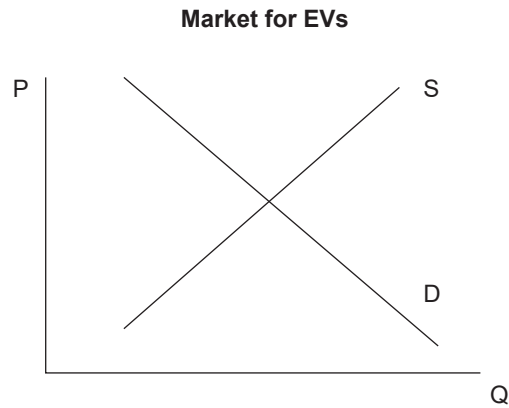


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1. **Source A: Economics of electric vehicles (EVs)**

The government of Country X predicts a small increase in demand for electric vehicles (EVs) in the near future, as consumers become more confident about the vehicles' reliability. The government also predicts a substantial increase in supply, as new producers enter the market and existing producers benefit from economies of scale.

- (a) With reference to Source A, explain the likely impact of these predicted changes on the market equilibrium for EVs. Complete the diagram below to support your answer.



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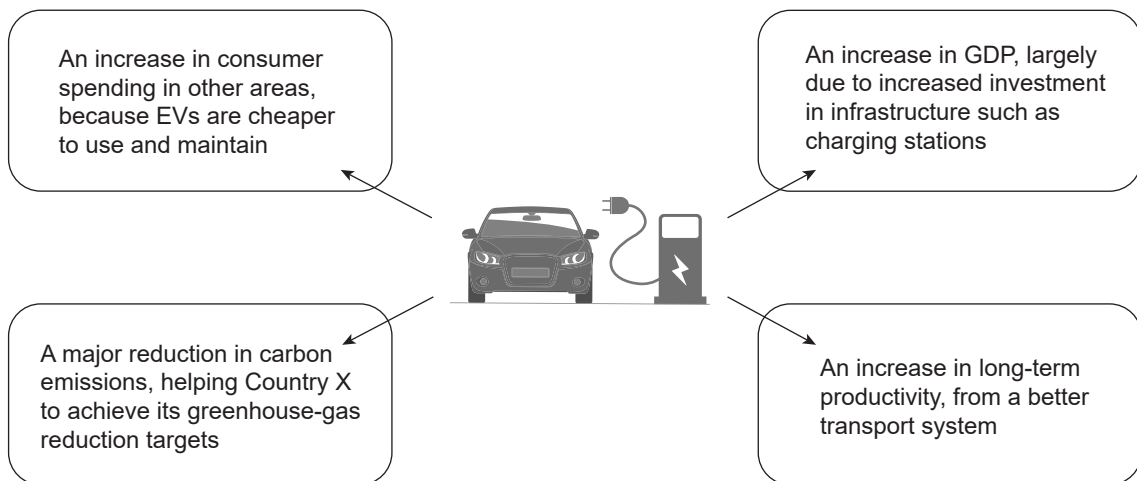
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(4 marks)

(b) **Source B: Benefits of EVs compared with petrol/diesel vehicles**



Source: adapted from © Elena Tumanova | Dreamstime.com

(i) Describe the difference between the economic concepts of consumption and investment.

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(3 marks)

(ii) With reference to Source B, explain how additional investment in charging stations could lead to an increase in GDP (gross domestic product). Refer to the expenditure multiplier in your answer.

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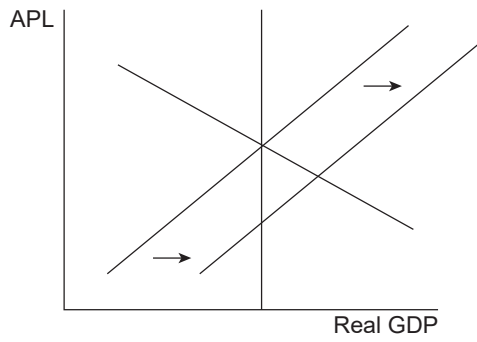
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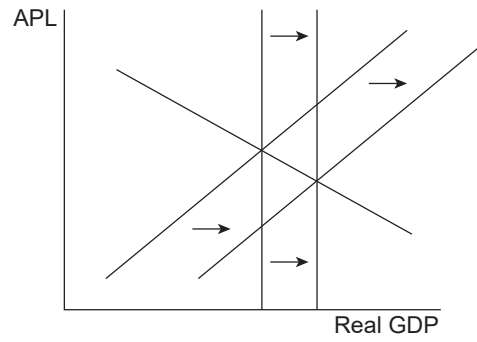
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(4 marks)

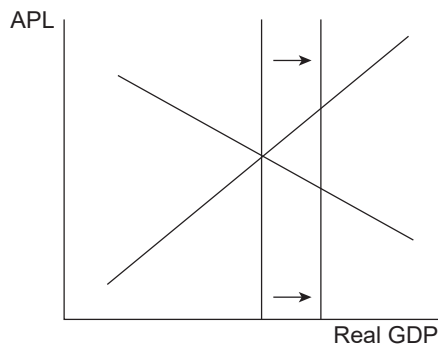
(iii) Refer to the following aggregate demand – aggregate supply diagrams.



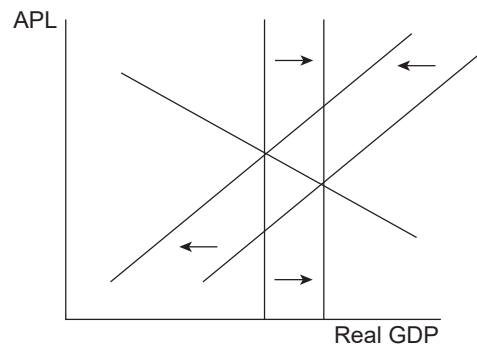
**Diagram A**



**Diagram B**



**Diagram C**



**Diagram D**

Select the diagram that best represents an increase in long-term productivity by ticking the appropriate box.

Diagram A

Diagram B

Diagram C

Diagram D

(1 mark)

(iv) Explain why an increase in long-term productivity is beneficial to an economy.

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(2 marks)

- (c) (i) Emissions from petrol/diesel vehicles create a negative consumption externality.

Explain why negative consumption externalities are considered an example of market failure.

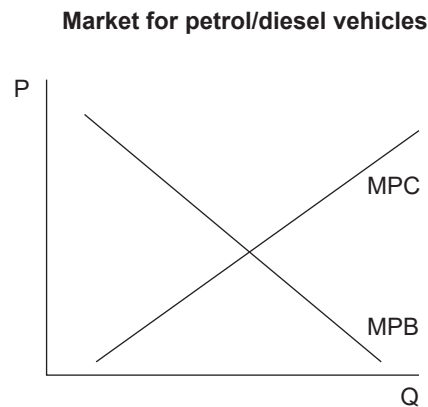
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(2 marks)

- (ii) Complete the diagram below to illustrate your answer, and identify the market failure on the diagram.



(2 marks)

- (d) (i) Outline *one* type of market failure, other than externalities, that may exist in the petrol/diesel vehicle market.

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(2 marks)

- (ii) State *one* strategy that a government could use to address the market failure identified in part (d)(i).

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(1 mark)



2. **Source C: Marketing game**

There are only two companies in Country X that install charging stations for electric cars: Volts Ltd and Amps Ltd. Each company has a choice of two strategies:

- Marketing — choose to spend on marketing
- Not marketing — choose not to spend on marketing.

The payoff matrix below shows the profit (\$million) that each company can make when it chooses between spending or not spending on marketing.

		Amps Ltd	
		Marketing	Not marketing
Volts Ltd	Marketing	40, 20	50, 15
	Not marketing	30, 35	45, 25

Use Source C to answer the following questions.

- (a) The manager of Amps Ltd is convinced that their company should spend on marketing. State which strategy Volts Ltd should then use.

\_\_\_\_\_ (1 mark)

- (b) Explain whether Amps Ltd should always spend on marketing.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_ (2 marks)

- (c) Identify the Nash equilibrium in this game.

\_\_\_\_\_ (1 mark)

- (d) ‘Both companies could increase their net profit by not playing the Nash equilibrium.’

Assess the accuracy of this statement.

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 \_\_\_\_\_ (3 marks)







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# Economics 2021

## Question booklet 2

- Questions 3 and 4 (35 marks)
- Answer **all** questions
- Write your answers in this question booklet
- You may write on page 8 if you need more space
- Allow approximately 65 minutes

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Copy the information from your SACE label here

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3. **Source D: Mechanical services**

Owners of petrol/diesel vehicles can choose from a large number of firms providing similar mechanical services to maintain their vehicles. Many firms are able to build consumer loyalty, but it is still a highly competitive market.

By contrast, recent studies have indicated that the market for the servicing of EVs will initially be dominated by a few EV manufacturing dealerships, because of the highly specialised training and equipment required. This market domination by a few dealerships will benefit producers more than consumers.

*Refer to Source D.*

- (a) State *one* reason why the petrol/diesel vehicle servicing market is 'monopolistically competitive'.

\_\_\_\_\_  
\_\_\_\_\_ (1 mark)

- (b) Explain the price elasticity of demand faced by firms in this monopolistically competitive market for petrol/diesel vehicle servicing.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (2 marks)

- (c) Assess the claim that the initial dominance of a few EV manufacturing dealerships for the servicing of EVs will benefit producers more than consumers.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (3 marks)

**Source E: Wages for mechanics**

The annual wages for petrol/diesel vehicle mechanics and EV mechanics in one country are shown below.

	<i>Mean (\$)</i>	<i>Median (\$)</i>
<i>Petrol/diesel vehicle mechanic</i>	48 500	42 300
<i>EV mechanic</i>	47 500	58 000

- (d) Using *all* the figures in this table, assess whether most mechanics earn higher wages in the EV industry or the petrol/diesel industry.

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(4 marks)

4. **Source F: Macroeconomic conditions for Country Y**

The following table includes economic data for Country Y over 4 years.

Country Y experienced a sudden and unexpected disruption to production towards the end of Year 2, which resulted in a major decline in business and consumer confidence.

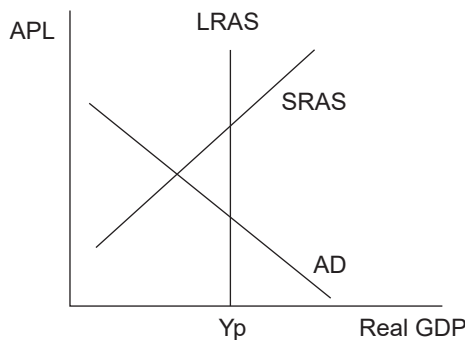
	Year 1	Year 2	Year 3	Year 4
GDP growth (%)	2.9	2.2	-5.3	-3.2
Government revenue (% of GDP)	17.0	16.0	12.0	10.0
Government expenditure (% of GDP)	20.0	19.5	21.5	24.0
Unemployment rate (%)	4.8	4.2	9.5	10.5
Inflation rate (%)	2.2	2.5	1.4	0.5
Official interest rate (%)	0.5	0.25	0.25	0.10

Recognised government macroeconomic targets include:

- unemployment of 4–5%
- inflation of 2–3%
- GDP growth of 3–4%.

Use Source F to answer the following questions.

- (a) (i) On the aggregate demand – aggregate supply model below, indicate the change in economic conditions in Country Y from Year 3 to Year 4.



(2 marks)

- (ii) Using *one* piece of data from Source F, justify your response in part (a)(i).

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(2 marks)

(b) The following indicators can be used to determine the phase of the business cycle for an economy. State *one* limitation for each indicator.

(i) Unemployment rate:

\_\_\_\_\_  
\_\_\_\_\_ (1 mark)

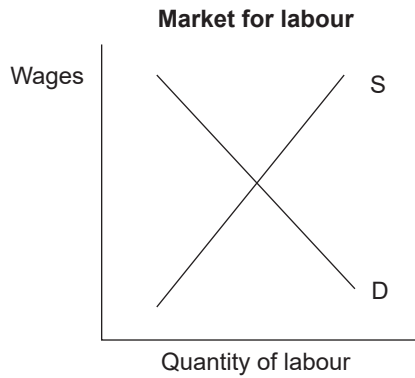
(ii) Consumer and business confidence:

\_\_\_\_\_  
\_\_\_\_\_ (1 mark)

(c) Using data from the table in Source F, explain the relationship between GDP growth and the unemployment rate.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (2 marks)

(d) (i) On the following diagram, indicate how the change in economic conditions from Year 2 to Year 3 might affect the demand for labour and the supply of labour.



(2 marks)

(ii) Explain *one* reason why the official unemployment rate may understate the real level of unemployment in Country Y.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (2 marks)





