



2015  
Half-Yearly Examination  
**Form V Economics**

Date: Mon 11th May (PM)

Outcomes Assessed: All

Total marks: 70

**General Instructions:**

- Working Time: 1½ hours
- Write using a black or blue pen
- Write your name and circle your master's initials at the front of the Answer Booklet
- Write your name and master's initials on the front cover of each Writing Booklet that you use
- All work will be collected in one bundle placed inside your Writing Booklet
- Board-approved calculators may be used

**Structure of Paper & Instructions:**

- **Section A (20 marks)**  
Answer all questions in the Answer Booklet provided. Circle the alternative A, B, C or D that most fully and correctly answers the question
- **Section B (30 marks)**  
Answer all questions in the Answer Booklet provided
- **Section C (20 marks)**  
Attempt one question from this section in the Writing Booklet provided. (More can be requested)

NT  
5/15

CHECKLIST
Each boy should have the following:
1 Question Paper
1 Answer Booklet for Sections A and B
1 Writing Booklet (more can be requested)

## SECTION A (20 marks)

Write your name and circle your master's initials on the front page of the **Answer Booklet**.

Attempt ALL questions.

Select the alternative that best answers the question.

Mark your answer on the **Answer Booklet** provided.

1. The decision of a sporting goods retailer to expand by taking over the operations of a rival firm in the industry is best described by which of the following terms?

- (A) Specialisation.
- (B) Diversification.
- (C) Horizontal integration.
- (D) Vertical integration.

2. What is the most likely cause of a firm achieving profit maximisation?

- (A) The firm maintains the highest level of possible sales.
- (B) Total revenue exceeds the total cost of production by the highest amount.
- (C) The firm achieves its highest level of shareholder ownership
- (D) The firm becomes the biggest supplier in the market following a successful merger with its biggest competitor.

3. Which of the following is not true of the Human Development Index?

- (A) It includes a measurement of income.
- (B) It is a better measurement of economic development than economic growth.
- (C) The Gini Coefficient is a component in its calculation
- (D) Life expectancy at birth is used as an indicator of health standards.

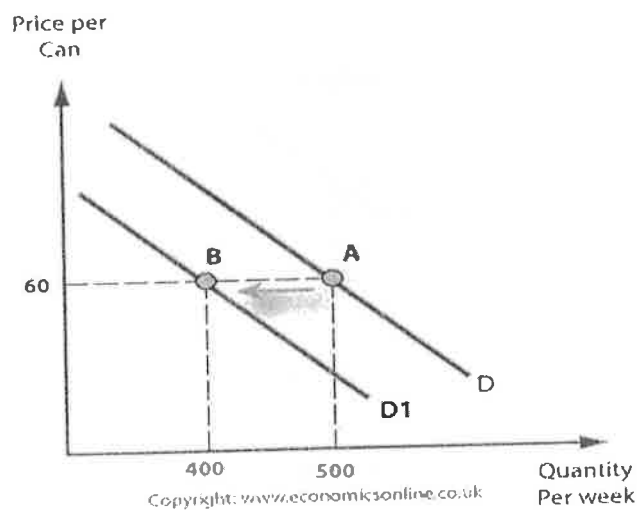
4. Which of the following two characteristics are typical of the market structure of oligopoly?

(A)	Low barriers to entry	Few competitors
(B)	Homogenous product	Low advertising expenditure
(C)	Product differentiation	Many rivals
(D)	Close substitutes	Significant market share

5. Which of the following is the most important role played by prices in the market economy?
- (A) To indicate the relative scarcity of goods and services in the economy.
  - (B) To enable firms to make maximum profits.
  - (C) To provide a signal to the government as to where they need to direct government expenditure.
  - (D) To ensure a fairer distribution of income.
6. Which of the following combinations is most likely to increase the level of domestic savings in the Australian economy in the short term?

	Household Income	Household Consumption
(A)	Rises	Rises
(B)	Rises	Falls
(C)	Falls	Rises
(D)	Falls	Falls

Question 7 is based on the following graph showing the demand for energy drinks:



7. What would cause the movement from point A to B?
- (A) An increase in the demand for energy drinks.
  - (B) An increase in the price of energy drinks.
  - (C) A government health warning about energy drinks.
  - (D) A decrease in the production of energy drinks.

8. Consider the following scenario in a 5 sector circular flow of income model:

- The government is running a budget surplus
- The financial sector has excess funds following firms' investment decisions
- Household spending on imports exactly matches firms' revenues from exports

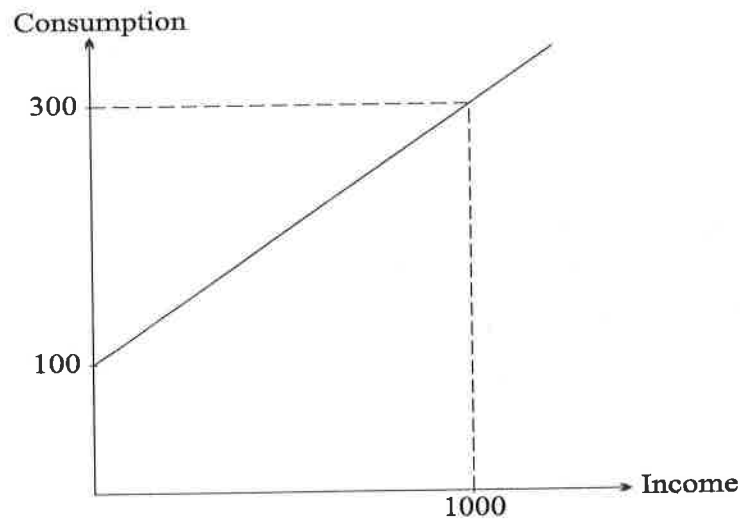
What is likely to happen to the level of income in this economy?

- (A) It will rise.  
(B) It will fall.  
(C) It will remain constant.  
(D) It is impossible to predict given the above information.

9. Which characteristics do goods provided by the private sector generally have?

(A)	Non-Excludable	Non-Rival
(B)	Non-Excludable	Rival
(C)	Excludable	Non-Rival
(D)	Excludable	Rival

Question 10 is based on the following consumption function:



10. In general terms, when the level of income is \$1000, how much does this economy spend on items other than the basic necessities of life?

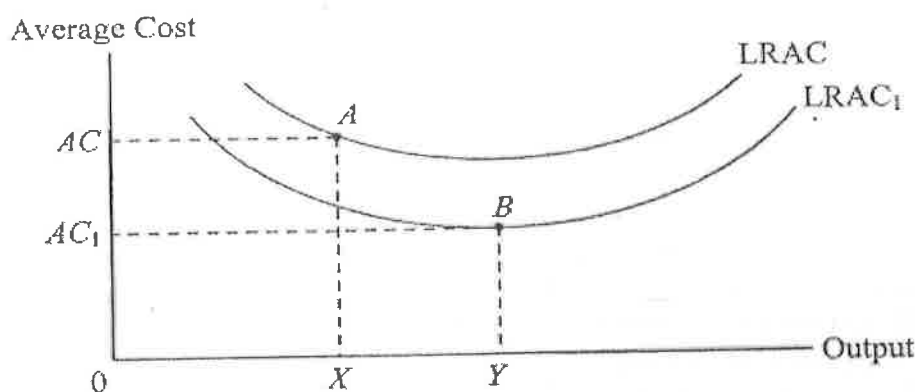
- (A) \$100  
(B) \$200  
(C) \$300  
(D) \$1000

11. Last year Alan earned \$50,000 and spent \$40,000. Following a 20% increase in his salary this year, he increased his saving by \$10,000.

Which of the following statements is true?

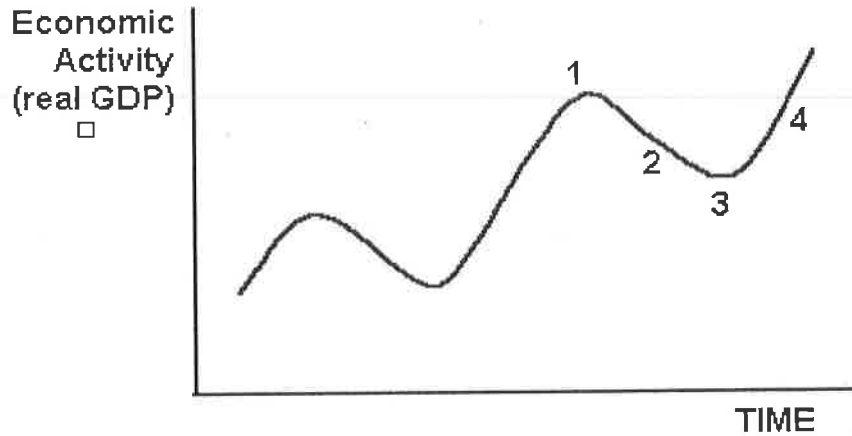
- (A) His average propensity to consume has increased.
- (B) His average propensity to consume has remained constant.
- (C) His marginal propensity to consume is greater than his marginal propensity to save.
- (D) His marginal propensity to consume is zero.

Question 12 is based on the following graph:



12. If the firm moved from point A on LRAC to point B on  $LRAC_1$ , which of the following is experienced by the firm?
- (A) Internal economies of scale and external diseconomies of scale.
  - (B) External economies of scale and cost saving advantages from increased scale.
  - (C) External economies of scale and problems arising for the firm due to poor management and excessive duplication of paperwork.
  - (D) Internal diseconomies of scale and the achievement of the technical optimum.
13. An increase in demand in a market where supply is perfectly inelastic will result in which of the following outcomes?
- (A) An increase in market output without a price increase.
  - (B) A reduction in market price and lower market output.
  - (C) A rise in market price and higher market output.
  - (D) A rise in market price without a change in market output.
14. Which of the following is not considered an example of a public good?
- (A) The Australian Broadcasting Corporation.
  - (B) The Sydney Harbour Bridge.
  - (C) The Australian Defence Force.
  - (D) Clean air.

Question 15 is based on the following graph:



15. Which of the following characteristics are likely when an economy moves from point 3 to point 4?

(A)	Falling employment levels	Higher inflationary pressures
(B)	Reduced import spending	Greater income equality
(C)	Higher taxation receipts	Greater environmental pressures
(D)	Lower unemployment	Lower exports

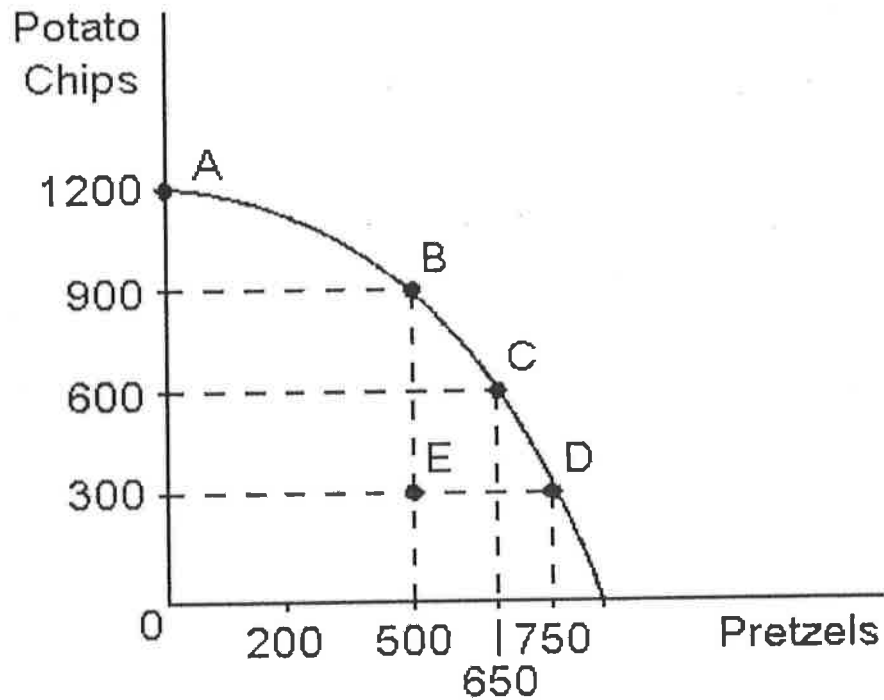
16. Which of the following government policy responses is compatible with the relevant example of market failure?

	MARKET FAILURE	POLICY RESPONSE
(A)	High costs & inefficiency due to lack of necessary infrastructure	Owning and operating a natural monopoly
(B)	Worsening income inequality	Lower Government taxation and expenditure
(C)	Higher levels of collusion and market sharing	Relaxation of rules in the Competition and Consumer Act, 2010
(D)	Economic recession	Higher Government expenditure and taxation

17. If there is an increase in the price of bread, which of the following changes to demand is most likely?

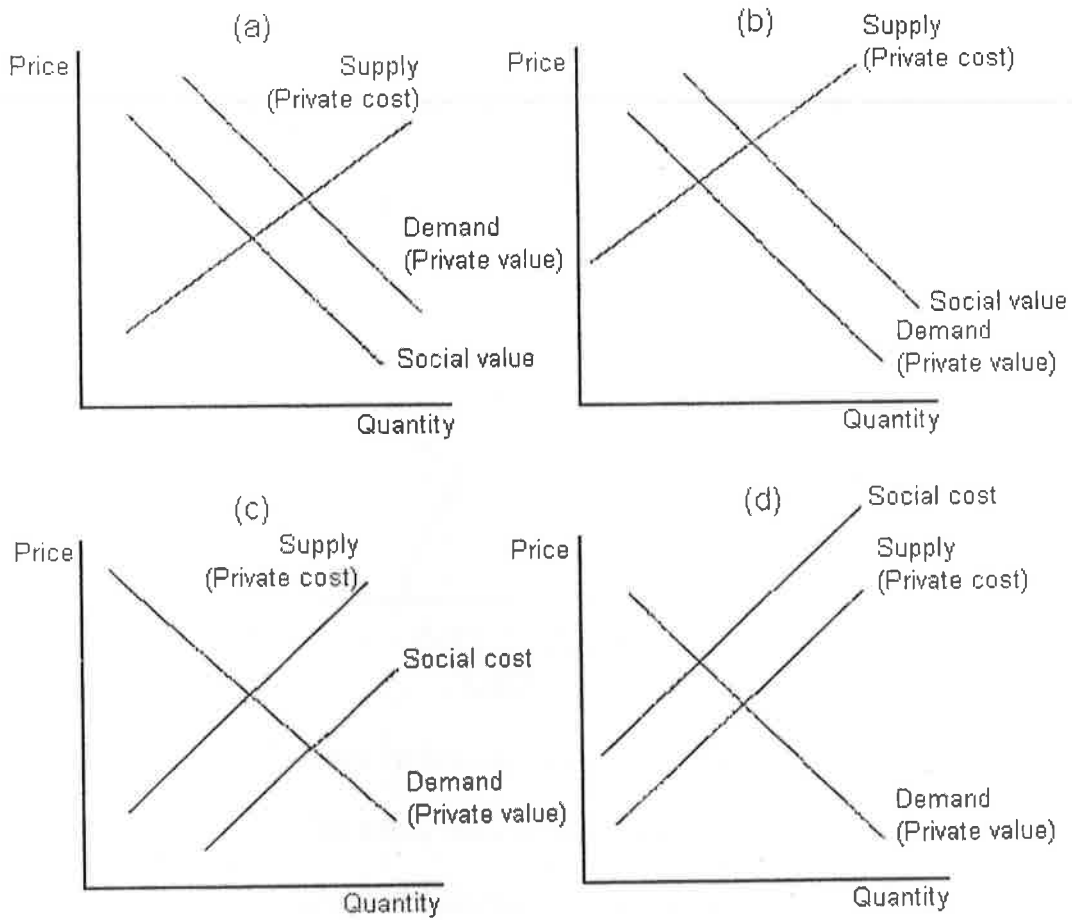
- (A) A decrease in demand for bread.
- (B) An expansion in demand for its substitute, crackers.
- (C) A decrease in demand for its complement, butter.
- (D) An expansion in demand for bread.

Question 18 is based on the following graph:



18. Which statement is true regarding the opportunity costs?
- (A) The opportunity cost of potato chips is lower as the economy moves from point D to C compared to that from C to B.
  - (B) The opportunity cost of the first 500 pretzels is 900 potato chips.
  - (C) The opportunity cost of the last 300 potato chips is 300 pretzels.
  - (D) The opportunity cost of pretzels is higher as the economy moves from point A to B compared to that from B to C.
19. If the government wishes to redistribute money from sellers to buyers in a particular market, what should it do to price?
- (A) Set a price ceiling below equilibrium price.
  - (B) Set a price floor above equilibrium price.
  - (C) Set a price ceiling above equilibrium price.
  - (D) Set a price floor below equilibrium price.

20. Which of the following graphs correctly shows the costs of pollution from the production of steel?



- (A) Graph (a)
- (B) Graph (b)
- (C) Graph (c)
- (D) Graph (d)

**END OF SECTION A**



**SECTION B (30 marks)**  
**Answer all the questions in the spaces below**

21. The following table shows possible weekly input and output figures for a firm producing butter using only two factors of production:

Land	Labour	Output	Average Cost (\$)
1	1	100	10
1	2	180	5
1	3	280	3
1	4	340	4
1	5	375	6

a) How do you know that this table represents the short run position for the firm? (1 mark)

---



---

b) What is the marginal product of the 4th worker? (1 mark)

---

c) Calculate the figure for weekly labour productivity when 5 workers are employed. (1 mark)

---

d) At what level of output is the technical optimum achieved? (1 mark)

---

e) If each unit of butter is sold for \$5, what is the total maximum profit that the firm could make? (**Show working**) (2 marks)

---



---



---



---



---



---

(Q 21 continues overleaf)

- f) Use the law of diminishing returns to explain the shape of this firm's short run average cost curve. (4 marks)

---

---

---

---

---

---

---

---

---

---

---

---

22. a) Complete **CLEARLY LABELLED** graphs in the table below to illustrate the difference between a **CONTRACTION** in supply and a **DECREASE** in supply. (2 marks)

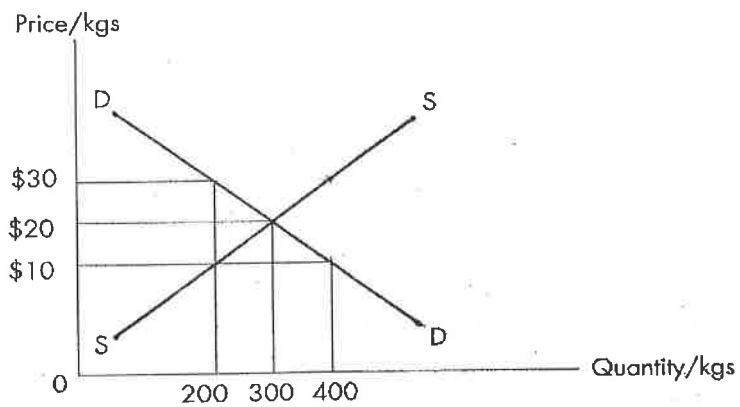
CONTRACTION IN SUPPLY	DECREASE IN SUPPLY

- b) Identify two possible causes of a decrease in supply. (2 marks)

i) \_\_\_\_\_

ii) \_\_\_\_\_

- c) Using the total outlay method, describe the price elasticity of demand for the product shown in the graph below when price rises from \$10 to \$30. (Show working) (2 marks)




---



---



---



---

- d) Explain the factors that determine the slope of the demand curve. (4 marks)

---



---



---



---



---



---



---



---



---



---

(Section B continues overleaf)

23. Consider the following information about possible income, consumption, savings and investment patterns within a 3 sector economy before answering parts a) and b) below:

Income	Consumption	Savings	Investment
1000	900	?	500
2000	1800	?	500
3000	2700	?	500
4000	3600	?	500
5000	4500	?	500

- a) What is the equilibrium level of income? (1 mark)

---

- b) Calculate the marginal propensity to save? (1 mark)

---

---

- c) Explain what **usually** happens to an economy's average propensity to consume as its level of income rises and why. (2 marks)

---

---

---

---

---

- d) Apart from the level of income, state two other factors which determine an individual's decision to spend or save any extra income received. (2 marks)

i) 

---

ii) 

---

- e) With reference to various market structures, explain the difference between 'price takers' and 'price setters'. (4 marks)

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**END OF SECTION B**

**SECTION C (20 marks)**

Answer **ONE** question from this section in a **WRITING BOOKLET**.

Write your name, master's initials and question being attempted  
on the front of the Writing Booklet.

If you use more than one booklet, write your name again on the front and  
clearly indicate that you are using a second booklet.

**EITHER**

24. Explain how the circular flow of income model can be used to explain  
fluctuations in the level of economic activity.

**OR**

25. Explain why Australia is considered a mixed market economy.

**END OF EXAMINATION**

SOLS

# ANSWER BOOKLET FOR SECTIONS A & B

NAME: .....

MASTER (CIRCLE): SD ACH JDS NT

## SECTION A (20 Marks)

- |      |          |          |          |          |      |          |          |          |             |
|------|----------|----------|----------|----------|------|----------|----------|----------|-------------|
| (1)  | A        | B        | <b>C</b> | D        | (11) | A        | B        | C        | <b>D</b>    |
| (2)  | A        | <b>B</b> | C        | D        | (12) | A        | <b>B</b> | C        | D           |
| (3)  | A        | B        | <b>C</b> | D        | (13) | A        | B        | C        | <b>D</b>    |
| (4)  | A        | B        | C        | <b>D</b> | (14) | A        | <b>B</b> | C        | D           |
| (5)  | <b>A</b> | B        | C        | D        | (15) | A        | B        | <b>C</b> | D           |
| (6)  | A        | <b>B</b> | C        | D        | (16) | <b>A</b> | B        | C        | D           |
| (7)  | A        | B        | <b>C</b> | D        | (17) | A        | B        | <b>C</b> | D           |
| (8)  | A        | <b>B</b> | C        | D        | (18) | <b>A</b> | B        | C        | <b>D</b> !! |
| (9)  | A        | B        | C        | <b>D</b> | (19) | <b>A</b> | B        | C        | D           |
| (10) | A        | <b>B</b> | C        | D        | (20) | A        | B        | C        | <b>D</b>    |

TURN OVER FOR SECTION B

## FORM V HALF-YEARLY EXAMINATION 2015

### SECTION B: SHORT ANSWER CRITERIA

#### OUTCOMES ASSESSED: P1, P2, P3, P5, P7, P8, P10 P11 & P12

- 21 a) How do you know that this table represents the short run position for the firm? (1 mark)

Criteria	Marks
Correct answer (Where there is at least one FIXED factor)	1

- b) What is the marginal product of the 4th worker? (1 mark)

Criteria	Marks
Correct answer ( $340 - 280 = 60$ )	1

- c) Calculate the figure for weekly labour productivity when 5 workers are employed. (1 mark)

Criteria	Marks
Correct answer ( $375/5 = 75$ per worker per week)	1

- d) At what level of output is the technical optimum achieved? (1 mark)

Criteria	Marks
Correct answer (280)	1

- e) If each unit of butter is sold for \$5, what is the total maximum profit that the firm could make? (Show working) (2 marks)

Criteria	Marks
Correct answer (\$560) AND working (related to $TR - TC$ )	2
Either correct answer but no working or some correct working but wrong answer	1

**Note:**

Many boys just assumed max profit would be with 3 labourers as that is where AC is at its minimum. They were marked correct but DON'T assume that in the future as min costs does NOT necessarily mean max profits!

- f) Use the law of diminishing returns to explain the shape of this firm's short run average cost curve. (4 marks)

Criteria	Marks
Comprehensive explanation	4
Clear explanation but not comprehensive	3
Reasonable explanation but not comprehensive nor clear	2
Only superficial explanation	1



**Answer could include:**

State law of diminishing returns (= Short Run concept ONLY)

Define AC (=TC/Q)

Consider how the law applies initially as AC falls and then subsequently when AC rises, both with reasons (eg specialisation then overcrowding)

Link to productivity and/or efficiency

- 22 a) Complete CLEARLY LABELLED graphs in the table below to illustrate the difference between a CONTRACTION in supply and a DECREASE in supply. (2 marks)

Criteria	Marks
2 correct graphs	2
Only 1 correct graph	1

**Answer could include:**

Contraction in supply = shift down and along the supply curve

Decrease in supply = shift of entire curve to the left

- b) Identify two possible causes of a decrease in supply. (2 marks)

Criteria	Marks
2 correct causes	2
Only 1 correct cause	1

**Answer could include:**

Increase in price of other g & s (not necessarily substitutes and/or complements!)

Increase in costs of production

Reduced availability of resources

Unfavourable climatic conditions

Loss of technology

**Note:**

Needed to state a change in **direction** of the determinant; ie 'climatic conditions' NOT accepted

- c) Using the total outlay method, describe the price elasticity of demand for the product shown in the graph below when price rises from \$10 to \$30. (Show working) (2 marks)

Criteria	Marks
Correct answer (Relatively inelastic) AND working (Related to total outlay rising from \$4000 to \$6000)	2
Either correct answer but no working or some correct working but wrong answer	1

**Note:**

The question clearly states \$10 TO \$30 so answers which covered \$10 to \$20 and then \$20 to \$30 only received one mark where appropriate

d) Explain the factors that determine the slope of the demand curve.

(4 marks)

Criteria	Marks
2 factors plus 2 good explanations	4
2 factors but only one good explanation	3
2 factors but poor/no explanation or 1 factor with one good explanation	2
1 factor only but poor/no explanation	1

**Answers could include:**

Inverse relationship between price and qd means a negative slope

Factors determining PED including:

- Necessity/Luxury (This counts as ONE factor NOT two!)
- Existence of close substitutes
- Habit-Forming/Addictive
- % of Y spent on the good
- Length of time since price change

**Note:**

Answers needed to relate the factors specifically to the slope of the demand curve; eg some wrote an excellent list of 2(+) factors but only stated the impact on elasticity without any reference to the demand curve's slope/gradient

23 a) What is the equilibrium level of income?

(1 mark)

Criteria	Marks
Correct answer ( $Y=5000$ )	1

b) Calculate the marginal propensity to save?

(1 mark)

Criteria	Marks
Correct answer ( $100/1000 = 0.1$ )	1

c) Explain what usually happens to an economy's average propensity to consume as its level of income rises and why.

(2 mark)

Criteria	Marks
Correct answer (APC falls) AND explanation that proportionally less is needed to be spent on basic needs	2
Either correct answer but no/poor explanation OR correct explanation but wrong answer	1

d) Apart from the level of income, state two factors which determine an individual's decision to spend or save any extra income received. (2 marks)

Criteria	Marks
States TWO correct answers	2
States ONE correct answer	1

Answers could include:

Age, future plans, future expectations, availability of credit, interest rates, tax, culture, personality.

e) With reference to various market structures, explain the difference between 'price takers' and 'price setters'. (4 marks)

Criteria	Marks
Explain price takers/setters, gives e.g. of market structures of BOTH	4
Explain price taker/setter, giving e.g. of market structure of ONE	3
Explain price taker/setter, giving no examples OR gives e.g. of market structures but no explanation OR refers to market and mixed market economy structures with Government power	2
1 market structure only but poor/no explanation	1

Answers could include:

Price Taker - Pure (perfect) competition/ Monopolistic competition

- Higher concentration of markets
- Homogenised product
- Limited barriers to entry
- Small size/high number of firms

Price Setter - Oligopoly/ Monopoly

- Differentiated product
- High barriers to entry
- Low number of firms/one firm
- Size of firms

## Form V Half Yearly – Section C

**Question 24: Explain how the circular flow of income model can be used to explain fluctuation in the level of economic activity.**

- Definition of the circular flow of income.
- A good 5 sector circular flow model was essential.
- A basic explanation of the components of each sector, their individual impact on economic activity and the basic mechanics of the CF model was vital.
- An examination of the impact of aggregate leakages and aggregate injections in equilibrium and disequilibrium was required.
- Discussion of the connection between equilibrium/disequilibrium and the business cycle. This was done best with the aid of a business cycle diagram.

The best answers explained:

- How the business cycle occurs naturally without any govt intervention. ie during an upswing as income rises, so to does saving, tax collections and import purchases. These leakages will grow to match injections at the peak of the boom, and if they overshoot injections they will cause a downswing. ...

### **Comments:**

Draw a full 5-sector model, not parts.

The focus of the question was not govt intervention to smooth the business cycle.

Marks: 20 marks x 1;19x2;18x1;17x9;16x7;15x8;14x10;13x4;12x4;11x1;6x1

Mean: 15; Median 15; Range 6-20

**Q 25: Explain why Australia is considered a mixed market economy.**

- Definition of a mixed market economy ie mostly free market with govt intervention to correct various market failures.
- Discussion of basics of the free market that Australia possesses – price mechanism works well to generate efficiency and minimise wastage.
- Draw market equilibrium diagram showing movement to equilibrium that prevents shortages or surpluses.
- Idea of consumer sovereignty, and for firms profit maximisation.
- Market failure requires govt intervention. 5 reasons for govt intervention:
- Failure to provide goods at all or in appropriate quantities ie public goods, merit goods, and demerit goods (subsidies/taxes)
- Economic instability – fluctuations in the business cycle (Fiscal/Monetary policy)
- Inequality of income (progressive tax/transfer payments)
- Externalities – particularly negative environmental – where social costs exceed private costs
- Market power – large firms will tend to dominate in some sections of the free market. Govt regulates this.

### **Comments:**

Far too much discussion of price ceilings and floors – this was only a minor point.

Diagrams drawn but not explained, labelled or referred to.

Concept of market failure often too narrow – public goods, merit and demerit.

Marks: 20 marks x 1;19x3;18x3;17x8;16x5;15x7;14x15;13x6;12x2;11x2;10x 1;6x1

Mean: 14.8; Median 14-15; Range 6-20