2014
Half-Yearly Examination
Form V Economics

Date: **Fri 16th May (AM)**   **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

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)
- Board approved calculators may be used

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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)

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.   Which of the following is regarded as the best way to measure the distribution of
        a country's income?

(A)   Human Development Index.
(B)   Gini Coefficient.
(C)   Real GDP per capita.
(D)   Level of unemployment.

2.   What is the best definition of the economic problem?

(A)   Due to there being limited needs and wants, as well as scarce resources, rational
        choices need to be made.
(B)   Resources are plentiful compared to the demands of society.
(C)   Since scarce resources have any number of alternative uses, opportunity cost is
        irrelevant.
(D)   Because of their relative scarcity, resources have to be allocated to satisfy as many
        needs and wants as possible in society.

3.   Which government action is inappropriate for the relevant problem stated?

	Problem	**Govt Action**
(A)	Market equilibrium quantity is too high due to negative externalities	Regulation
(B)	Market equilibrium quantity is too low due to positive externalities	Subsidies
(C)	The market does not provide the good or service	Expand Public Sector
(D)	The equilibrium market price is too high	Price Floor

4.   With labour assumed to be the only variable factor in the production process, what conclusion can be made when the marginal physical product reaches zero?

(A)   Short run average cost must be at the technical optimum.
(B)   Diminishing returns commence.
(C)   Decreasing returns to scale start to dominate.
(D)   Total physical product is at its maximum.

5.   This question is based on the demand curve below:
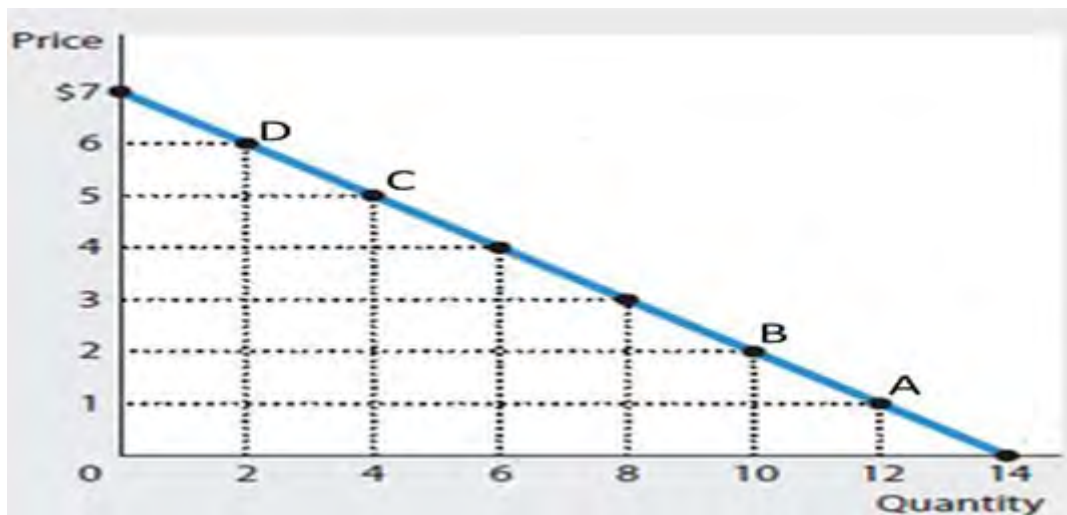
Using the total expenditure test, describe the price elasticity of demand from point B to point D?

(A)   Relatively inelastic.
(B)   Unit elasticity.
(C)   Relatively elastic.
(D)   Perfectly inelastic.

6.   Which of the following objectives and measurements are incompatible?

|	Objective	Measurement
(A)	Technical Optimum	Minimum average cost
(B)	Productivity	Ratio of Outputs to Inputs
(C)	Marginal Cost	Cost of the last unit of production
(D)	Maximum Profit	Highest possible total revenue

Question 7 refers to the following information for a 3 sector economy:
- John earnt $100,000 and spent $80,000 in 2012;
- In 2013 he spent 10% more than last year as a result of a 5% pay rise;

7.   What was John's average propensity to consume in 2013?

(A)   1.6.
(B)   0.5.
(C)   0.625.
(D)   0.84.

Question 8 is based on the graphs for beef below:
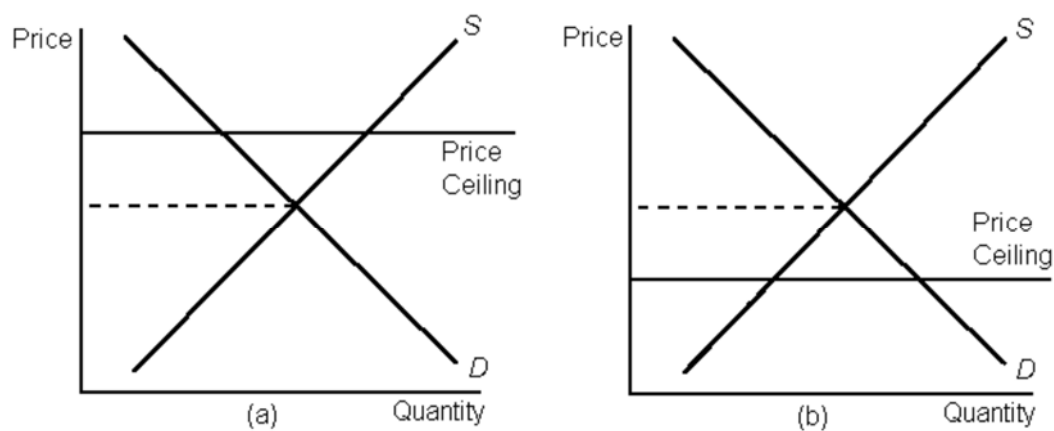
8.   On which graph(s) would there be a shortage for beef at the Price Ceiling?

(A)   Graph (a) only.
(B)   Graph (b) only.
(C)   Neither Graph (a) nor (b).
(D)   Both Graph (a) and (b).

9.   What is the typical pattern of income, consumption and savings that is followed according to the life-cycle theory of consumption?

(A)   Consumption rises steadily but then falls as retirement is reached.
(B)   Income peaks at the point of retirement.
(C)   A period of saving exists between two periods of dissaving.
(D)   Individuals on higher incomes tend to have a higher marginal propensity to consume.

10. If a manufacturer wants to ensure the supply of the raw materials that it uses and gain a greater market share, which respective combination of growth sources should it pursue?

(A) Backward vertical integration and horizontal integration.
(B) Backward and forward vertical integration.
(C) Horizontal integration and vertical integration.
(D) Diversification and forward vertical integration

Questions 11 & 12 relate to the following information:

Country	Investment	Imports	Govt Exp	Savings	Exports	Taxation
China	100	200	500	300	100	200
Australia	500	400	200	100	500	300
Japan	200	300	600	400	200	400

11. Which country is most likely to be experiencing falling unemployment?

(A) China.
(B) Australia.
(C) Japan.
(D) All of the above.

12. Which country will need to borrow the most to fund their government expenditure?

(A) China.
(B) Australia.
(C) Japan.
(D) None of the above.

13. Which combination of characteristics is typical in a market economy?

(A) Excessive demerit goods, not enough merit goods and economic stability.
(B) High levels of competition, producer sovereignty and a socially desirable distribution of income.
(C) Profit-making activities pursued by entrepreneurs, private property rights and the pattern of production determined collectively by consumers.
(D) Big public sector, large networks of buyers and sellers and lack of government regulation.

14.   The concentration of advanced technology industries in the Macquarie Park
        industrial area in Sydney's north west is best described as an example of what
        type of specialisation?

(A)   Land.
(B)   Labour.
(C)   Capital.
(D)   Enterprise.

Question 15 refers to the demand curves below for 3 goods:
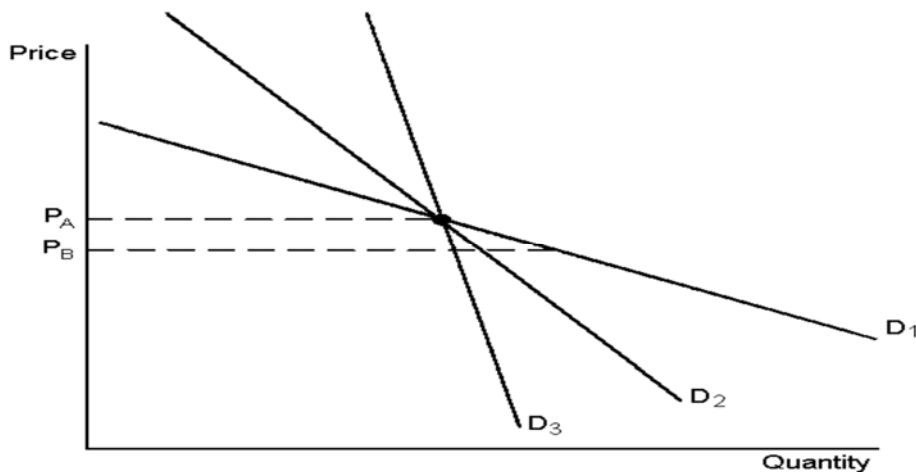
15.   As price falls from P_A to P_B, which of the following statements is true?

(A)   The biggest expansion in demand is on D_1 and so this good must be a necessity.
(B)   The smallest extension in demand is on D_1 and so this good must be a luxury.
(C) D_2 represents unitary elasticity as it lies between D_1 and D_3.
(D) D_3 will have a lower price elasticity of demand coefficient than D_1.

16.   How does productivity contribute to improvements in our standard of living?

(A)   Lower production costs, improved international competitiveness and higher
        profits.
(B)   Higher prices and reduced need for labour resources.
(C)   Both (A) and (B) above.
(D)   Neither (A) nor (B) above.

17.   To what does ethical decision-making refer with regards to a firm's behaviour?

(A)   Maximise dividends paid to shareholders.
(B)   Pursue a satisfactory level of all goals such as profit maximisation and growth.
(C)   Consider the impacts on society and the environment.
(D)   Provide a wide range of quality goods and services to the market.

Question 18 refers to the graph below, showing the demand and supply for smartphones:
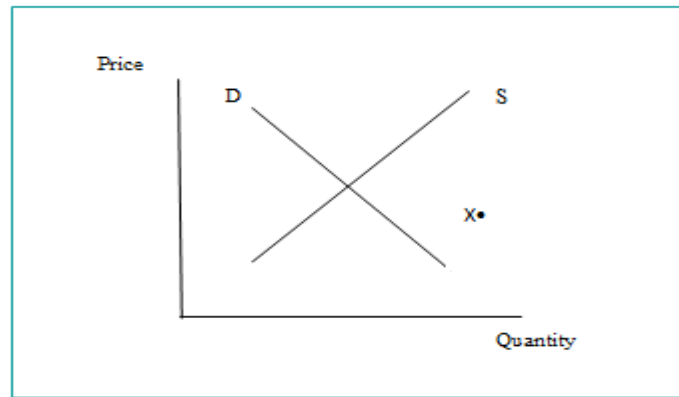
18.   Which respective combination of demand and supply changes would result in a new equilibrium at point X?

(A)   More smartphone advertising and a rise in the price of substitute.
(B)   Increase in incomes and decrease in the cost of smartphone components.
(C)   Greater expectations that the price of smartphones will fall in the future and increase in smartphone production technology.
(D)   Reduced population and adverse weather affecting the manufacture of smartphones.

19.   What combination of policies would be most appropriate for a government experiencing an economic boom?

	Fiscal Policy	Monetary Policy
(A)	Larger budget deficit	Higher interest rates
(B)	Smaller budget deficit	Lower interest rates
(C)	Larger budget surplus	Higher interest rates
(D)	Smaller budget surplus	Lower interest rates

20.   How does the passing of time impact on the price elasticity of supply for most goods and services?

(A)   It becomes more inelastic.
(B)   It shifts the supply curve to the right.
(C)   It makes the supply curve less steep.
(D)   It has no effect.

END OF SECTION A

ALL questions are to be found in the ANSWER BOOKLET used for Section A
Attempt all parts of each of the **THREE** questions (**Qs 21, 22 & 23**).

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 economies and diseconomies of scale influence a firm's long run
        average costs.

OR

25.   Explain how demand and supply interact to achieve an efficient allocation of
        resources in a free market.

END OF EXAMINATION

FORM V ECONOMICS: HALF-YEARLY EXAMINATION 2014

ANSWER BOOKLET FOR SECTIONS A & B

NAME: ……..

MASTER (CIRCLE):   SD   ACH   JDS   NT

SECTION A (20 Marks)

(1)   A   B   C   D   (11)   A   B   C   D

(2)   A   B   C   D   (12)   A   B   C   D

(3)   A   B   C   D   (13)   A   B   C   D

(4)   A   B   C   D   (14)   A   B   C   D

(5)   A   B   C   D   (15)   A   B   C   D

(6)   A   B   C   D   (16)   A   B   C   D

(7)   A   B   C   D   (17)   A   B   C   D

(8)   A   B   C   D   (18)   A   B   C   D

(9)   A   B   C   D   (19)   A   B   C   D

(10)   A   B   C   D   (20)   A   B   C   D

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

21 a)   What is meant by the term 'market failure'?   (2 marks)

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b)   Identify two types of market failure and explain how the government
        could intervene to resolve these situations.   (4 marks)

i)   **TYPE OF MARKET FAILURE:**   _____

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ii)   **TYPE OF MARKET FAILURE:**   _____

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c)   Describe two differences between a perfectly competitive market
      and a monopolistically competitive market.   (4 marks)

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22.   This question refers to the graph below for boxes of crackers:
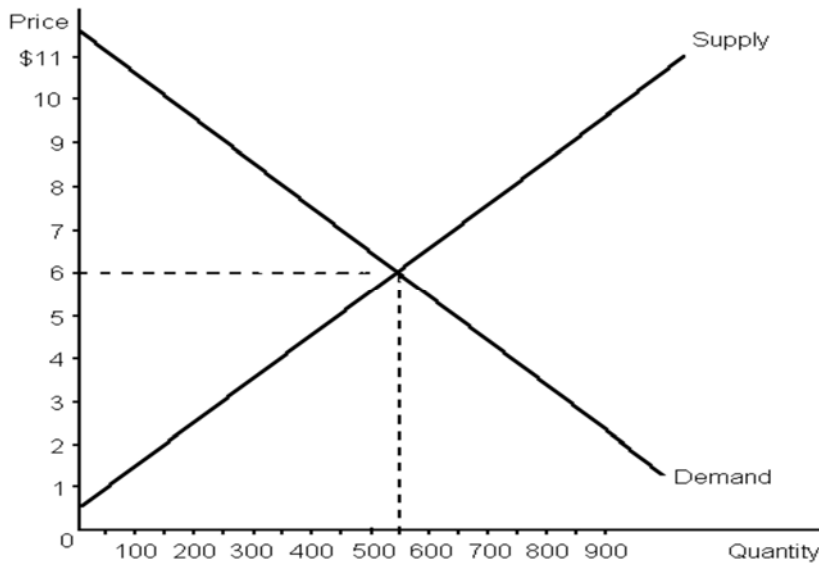
a)   Is it above or below $6 that the willingness and ability to sell exceeds
       the willingness and ability to buy?   (1 mark)

_____

b)   What is producer revenue at the equilibrium price?   (1 mark)

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c)   Give two distinct reasons explaining why the supply curve has a positive slope.
                                                                          (2 marks)

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Q 22 CONTINUED OVERLEAF

d) **On the graph below**, carefully draw the impact of a tax of $2 per box on the producers of crackers and **clearly** identify the new equilibrium price. (2 marks)

e) Explain why the price has not increased by the full extent of the tax.
(4 marks)

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23.   This question refers to the information in the table below:

Production Possibilities for Australia	
Computers	Cheese (kgs)
250	0
200	500
150	900
100	1200
50	1400
0	1500

a)   In the space below, **sketch** the production possibilities frontier, measuring
       computer production on the horizontal axis and cheese production on
       the vertical axis and plotting only the first and last combinations.   (2 marks)

b)   What is the opportunity cost of the last 50 computers?   (1 marks)

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c)   How would an economist describe the production of 50 computers
       and 1200 kgs of cheese?   (1 mark)

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Q 23 CONTINUED OVERLEAF

d) Explain two factors that would need to change for this economy to be able to produce a combination of 300 computers and 100 kgs of cheese. (4 marks)

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e) Using an example, describe how the concept of opportunity cost relates to the spending patterns of a government. (2 marks)

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END OF SECTION B

RETURN TO THE QUESTION PAPER FOR SECTION C

FORM V ECONOMICS: HALF-YEARLY EXAMINATION 2014

ANSWER BOOKLET FOR SECTIONS A & B

NAME: ………..

MASTER (CIRCLE):   SD   ACH   JDS   NT

SECTION A (20 Marks)

(1)   A   (B)   C   D   (11)   A   (B)   C   D

(2)   A   B   C   (D)   (12)   (A)   B   C   D

(3)   A   B   C   (D)   (13)   A   B   (C)   D

(4)   A   B   C   (D)   (14)   (A)   B   C   D

(5)   A   B   (C)   D   (15)   A   B   C   (D)

(6)   A   B   C   (D)   (16)   (A)   B   C   D

(7)   A   B   C   (D)   (17)   A   B   (C)   D

(8)   A   (B)   C   D   (18)   A   (B)   C   D

(9)   A   B   (C)   D   (19)   A   B   (C)   D

(10)   (A)   B   C   D   (20)   A   B   (C)   D

TURN OVER FOR SECTION B

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SEE NEXT PAGE

SECTION B: SHORT ANSWER CRITERIA

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

21 a) **What is meant by market failure?**   (2 marks)

Criteria	Marks
Comprehensive definition	2
Superficial definition	1

Answer could include:
Where demand and supply only account for private benefits and costs and not social costs and benefits. Hence presence of + and - externalities/spillovers; i.e. cost on a 3rd party so price does not reflect true cost on society

b)   **Identify two types of market failure and explain how the government could intervene to resolve these situations.**   (4 marks)

Criteria	Marks
2 types plus 2 good explanations	4
2 types but only one good explanation	3
2 types but poor/no explanation **or** 1 type with one good explanation	2
1 type only but poor/no explanation	1

Answer could include:
Price too low -> Price Floor; Price too high -> Price Ceiling
Q too high -> Tax; Q too low -> Subsidy
Externalities: Negative then Q too high -> Tax, regulation, etc
                 Positive then Q too low -> Subsidy, govt provision, etc
Climate Change -> Tax, regulation, etc
Recession/Boom/Volatile business cycle -> Fiscal & Monetary policies
Y inequality -> More G, Lower T, etc

c)   **Describe two differences between a perfectly competitive market and a monopolistically competitive market.**   (4 marks)

Criteria	Marks
2 differences well explained	4
2 differences but only 1 good explanation	3
2 differences but poor/no explanation **OR** 1 difference with 1 good explanation	2
1 difference only but poor/no explanation	1

Answer could include:
V large number v Large number
Homogenous product v Differentiated product
No barriers to enter/exit v Low barriers to enter/exit

22 a) Is it above or below $6 that the willingness and ability to sell exceeds the willingness and ability to buy? **(1 mark)**

Criteria	Marks
'Above' clearly stated	1

b) What is producer revenue at the equilibrium price? **(1 mark)**

Criteria	Marks
'$3300' clearly stated	1

c) Give two reasons explaining why the supply curve has a positive slope. **(2 marks)**

Criteria	Marks
2 reasons	2
Only 1 correct reason given	1

Answer could include:
Profit motive of higher prices
Entry of new firms

d) Draw the impact of a $2 tax per box on the producers of crackers and identify the new equilibrium price, **(2 marks)**

Criteria	Marks
New supply curve correctly drawn with new price of $7 identified	2
New supply curve correctly drawn **OR** new price of $7 identified	1

e) Explain why the price has not increased by the full extent of the tax. **(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:
Impact and incidence
Price elasticity of demand
Firms' revenue
Extreme cases (PED = 0, etc)

23 a) Sketch the production possibilities frontier, measuring computer production on the horizontal axis and cheese production on the vertical axis and plotting only the first and last combinations. (2 marks)

Criteria	Marks
All instructions carried out accurately	2
Only some/one instruction(s) carried out accurately	1

Answer could include:
Plotting 1500 kgs Cheese with 0 Computers on vertical axis
Plotting 0 Cheese with 250 Computers on horizontal axis
PP Frontier with concave shape NOT straight line

b) What is the opportunity cost of the last 50 computers? (1 mark)

Criteria	Marks
'500 kgs of Cheese' clearly stated	1

c) How would an economist describe the production of 50 computers and 1200 kgs of cheese? (1 mark)

Criteria	Marks
'Allocatively Inefficient' clearly stated but also accepted 'Inefficient', 'Unemployment/Underemployment (of resources)', 'Excess capacity', etc	1

d) Explain two factors that would need to change for this economy to be able to produce a combination of 300 computers and 100kgs of cheese. (4 marks)

Criteria	Marks
Comprehensive explanation of 2 factors	4
1 factor well explained but other factor unclear	3
2 factors identified but neither well explained OR 1 factor only but well explained	2
Only 1 factor identified with no/unclear explanation	1

Answer could include:
Better technology
Improved quantity of resources
Improved quality of resources

e) Using an example, describe how the concept of opportunity cost relates to spending patterns of a government. (2 marks)

Criteria	Marks
Relevant example given with good explanation	2
Relevant example given but explanation poor/incomplete	1

Answer could include:
School or hospital
Road or railway
Etc

24. Explain how economies and diseconomies of scale influence a firm's long run average costs.

Definition:

Economies of scale refer to the reductions in costs per unit of output as output increases. They are the 'savings of size' if a firm is able to increase the size or scale of its plant or operations in the long run production period. For example, a business may find that with increasing market share or growth in market demand for its product or service, it may need to expand its scale of operations, such as building or renting a larger factory, shop, office or warehouse complex. In the long run production period all factors can become variable, including fixed factors such as land and capital.
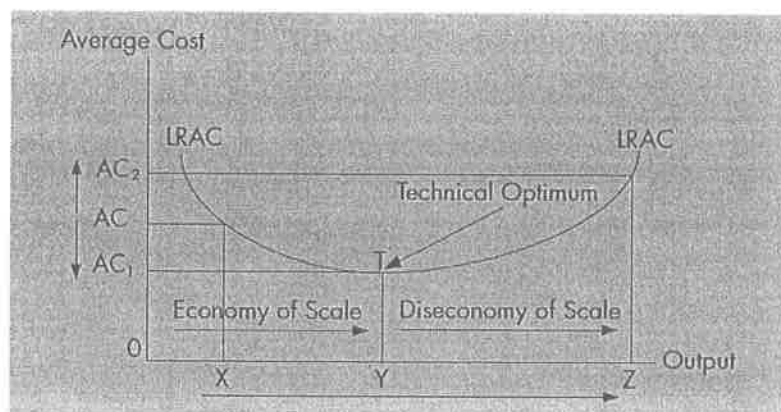
There is scope to explain sources of EOS.

Internal Economies of Scale

Internal economies of scale refer to cost savings or cost advantages that accrue to the firm because it becomes more efficient in allocating its internal resources. Internal economies of scale are represented by the downward sloping section of the LRAC curve between points OX and OY in Figure 5.3. Internal economies of scale result from cost savings within the firm's direct span of control. Sources of internal economies of scale can include the following:

*   Increased specialisation and division of labour which may lead to higher labour productivity and output.
*   Increased specialisation of capital which may raise total factor productivity and labour productivity in particular. Total output will increase as a result of using specialised capital in production.
*   Lower input costs through the purchase of raw materials and other inputs in bulk.
*   Access to cheaper finance may result from a firm increasing its scale of production due to larger market share, sales and profits. Larger companies or businesses tend to pay lower interest costs on their borrowings, because the risk associated with borrowing is less than for small businesses.
*   By-products or waste materials may be used from large scale production because of recycling or the creation of a market for waste products from the production process e.g. a printing business may recycle excess paper for usable products such as business cards, note pads and packaging.
*   Research and development (R and D) and technological advances may lead to new products and processes for a firm, which may lower production costs and increase the sales of its output.

Internal Diseconomies of Scale

Internal diseconomies of scale refer to increases in production costs per unit as output increases such as between points OY and OZ in Figure 5.3. Increases in plant size beyond technical optimum will lead to rising average costs as the fixed factor (e.g. land or capital) is incapable of yielding further reductions in average costs. This may be caused by any or all of the following factors:

*   The management of the firm may become too complex and costly to co-ordinate as there is a lack of communication between different departments and different layers of management (i.e. senior, middle and supervisory levels of management) leading to bureaucratic inertia or inefficiency.
*   Increased output may only occur with more variable factors (e.g. labour and raw materials) which may raise variable costs and increase average costs at the given level of plant size.
*   Congestion in the production process, errors in production, higher costs in distribution and administration of the business, may raise costs to such an extent that average costs keep rising and become difficult to control and reduce.
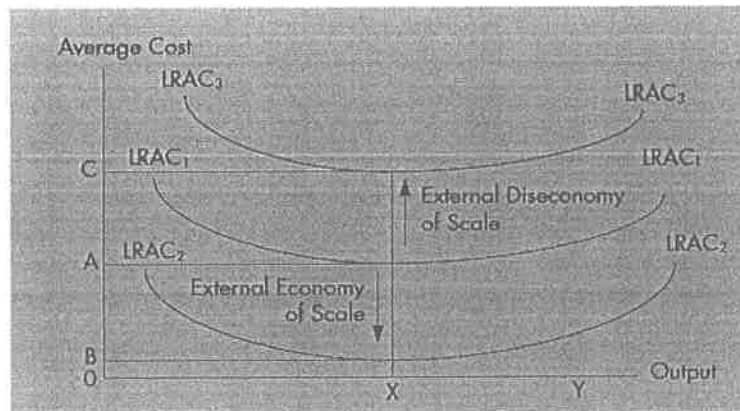
And show shifts in LRAC due to external factors

External Economies due to:

- Lower resource costs because of proximity to natural resources e.g. the steelworks at Port Kembla are located near Illawarra coal deposits.
- Improved transport facilities provided by government to service the needs of major industrial or commercial complexes. These could include expanded rail, bus, port or airport services.
- Access to cheaper power and infrastructure provided by government for the whole industry.
- Proximity to a healthy, educated, trained and skilled labourforce which increases labour productivity and provides a skills base for firms in the whole industry.
- Research and development of new methods of production and new products as a result of industry co-operation or government funded research and development.
- Access to a lower cost of finance due to growth and profit opportunities in the industry as a whole.

External Diseconomies due to:

- Higher resource costs may be paid as firms compete for available resources or inputs.
- Increased government regulation of the industry, which can add to the compliance costs of the industry and each firm involved in that production activity. Examples could include regulations over pollution emissions, the disposal of hazardous wastes or traffic and parking restrictions. Other examples could be onerous government zoning laws, development applications and building codes.
- Higher labour costs due to skill shortages, as the industry expands and higher wages and fringe benefits have to be paid by firms to attract (and retain) skilled labour in the industry.
- Increased congestion and pollution in the industry e.g. a lack of extensive or suitable parking facilities or higher levels of traffic congestion and industrial pollution in an industrial region.

General observations:

- Responses that drew SRAC or showed increasing returns to scale on diagrams needed to explain relevance. There is relevance, but sticking them on a diagram and not referring to them in the body of the essay is not helpful.
- Weaker responses tended to throw in as many terms as possible (including ones I had never heard of) and hope for the best..
- Best responses used examples and detailed explanation of sources of EOS.

Average – 15 / Range 18-11

25. Explain how demand and supply interact to achieve an efficient allocation of resources in the free market

Definition:

Market equilibrium is a situation where price and output are determined through the interaction of demand and supply. When the quantity demanded of a good or service is equal to the quantity supplied of that good or service, market equilibrium price and quantity are established. Market equilibrium is also a situation in where there is no tendency for change in either the price or quantity of a good or service. The tendency for markets to equilibrate is caused by the forces of demand and supply responding to any imbalance between them, through an adjustment process according to price movements. The price mechanism refers to the interplay of the market forces of demand and supply in determining equilibrium prices and quantities of final goods and services and the factors of production, in allocating resources to their most productive uses in consumption and production. The price mechanism therefore operates in both product and factor markets in market economies like Australia.

Relevant diagrams:
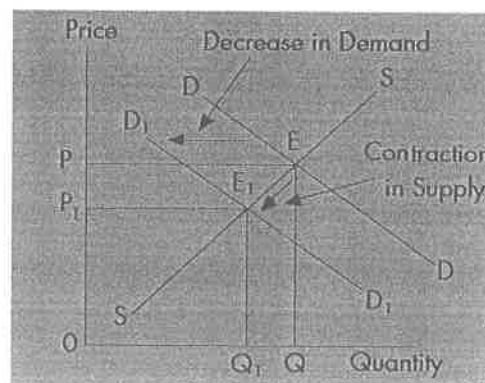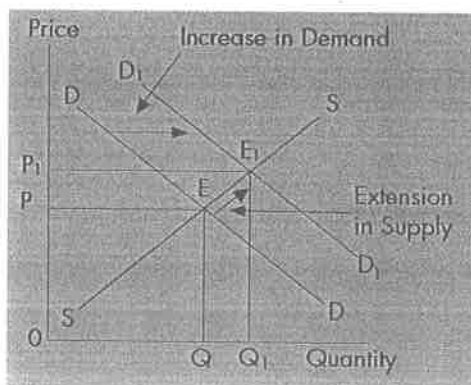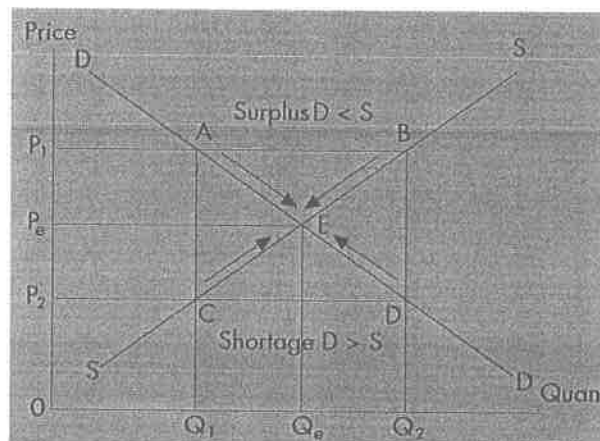
- To analyze how any event influences a market, we use the supply-and-demand diagram to examine how the event affects the equilibrium price and quantity.
- In market economies, prices are the signals that guide economic decisions and thereby allocate resources
- An efficient allocation of resources should be defined
- Identify specific determinants of demand and supply

25/112 attempted this question.
Range 19-11 Average - 14