NZQA

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Level 3 Economics, 2017

91399 Demonstrate understanding of the efficiency of market equilibrium

2.00 p.m. Wednesday 29 November 2017
Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of the efficiency of market equilibrium.	Demonstrate in-depth understanding of the efficiency of market equilibrium.	Demonstrate comprehensive understanding of the efficiency of market equilibrium.

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

You should attempt ALL the questions in this booklet.

If you need more room for any answer, use the extra space provided at the back of this booklet.

Check that this booklet has pages 2–10 in the correct order and that none of these pages is blank.

**YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.**

TOTAL

ASSESSOR'S USE ONLY

QUESTION ONE: IMPACT OF A SUBSIDY

An expert in population nutrition at Auckland University, Boyd Swinburn, says that poor diet is now a bigger cause of ill health than smoking in countries like New Zealand. Subsidising fruit and vegetables could improve the country's health.

Source: http://www.radionz.co.nz/news/national/123254/food-taxes-and-subsidies-'could-improve-health'

To encourage healthier eating, the government could look to subsidise fruit and vegetables.

Graph One: Market for fruit and vegetables – impact of a subsidy

(a) (i) On Graph One, the original equilibrium price is P_e and the original equilibrium quantity is Q_e. Show the impact of a subsidy on the market for fruit and vegetables by clearly labelling the new equilibrium price P_1 and the new equilibrium quantity Q_1.

(ii) Explain in detail, using market forces, how equilibrium in the market for fruit and vegetables would be restored. In your answer, refer to Graph One.

(b) (i) On Graph One, complete the following to show the impact of a subsidy on the fruit and vegetables market:

- Shade in the increase in consumer surplus
- Shade in the increase in producer surplus
- Shade in the deadweight loss
- Label the area of total cost to the government using the letters A, B, C, and E.

(ii) Refer to Graph One to compare and contrast the impact of a subsidy on the New Zealand fruit and vegetables market. In your answer, include the impact on:

- consumer and producer surplus
- government
- allocative efficiency.

QUESTION TWO: IMPACT OF A QUOTA

A quota on production limits the amount produced, forcing the price up.

A quota imposed on products with different elasticities can have varying impacts. Graphs Two and Three show a quota that halves the original production of an inelastic good and an elastic good, respectively.

Graph Two: A good with inelastic demand
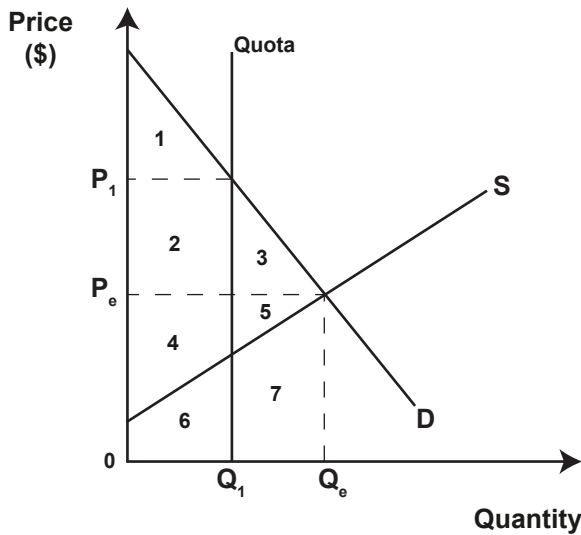
Graph Three: A good with elastic demand
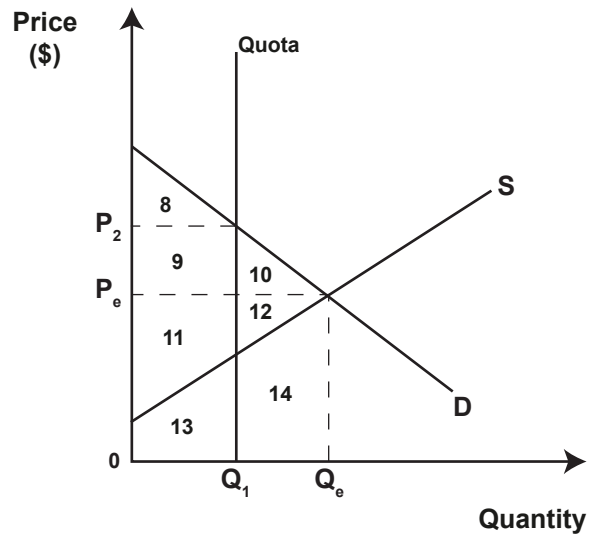
(a)   Use Graph Two above to complete Table One, to show the impact of a quota. Use the numbers in the graph to represent the respective areas:

Table One

	Numbers from Graph Two – Inelastic Demand
Change in consumer surplus	
New producer surplus	
Deadweight loss	

(b)   (i)   Refer to Graph Two and Table One to fully explain the impact of a quota on:
   •   consumer surplus
   •   producer surplus
   •   allocative efficiency.

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(ii)   Use Graphs Two and Three to compare and contrast the impact on consumer surplus and allocative efficiency when goods have different elasticities of demand.

QUESTION THREE: RISING RENTS

> Rents, particularly in Auckland, are set to increase, with landlords blaming housing shortages and an unprecedented interest in their properties.
>
> Source (adapted): http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11779030

The rising rents have largely been driven by increasing demand.

Graph Four: Auckland rental housing market – increasing demand

(a) (i) On Graph Four, show the impact on the market for rental housing in Auckland as a result of increasing demand. Clearly label the new equilibrium price P_1 and the new equilibrium quantity Q_1.

(ii) Explain in detail, using market forces, how equilibrium in the Auckland rental housing market would be restored. In your answer, refer to the changes you made to Graph Four.

A possible intervention to keep rents from rising is a maximum rent control. Graph Five below shows a maximum rent (P_{max}) set below the equilibrium rent of P_e.

Graph Five: Auckland rental housing market – maximum rent control
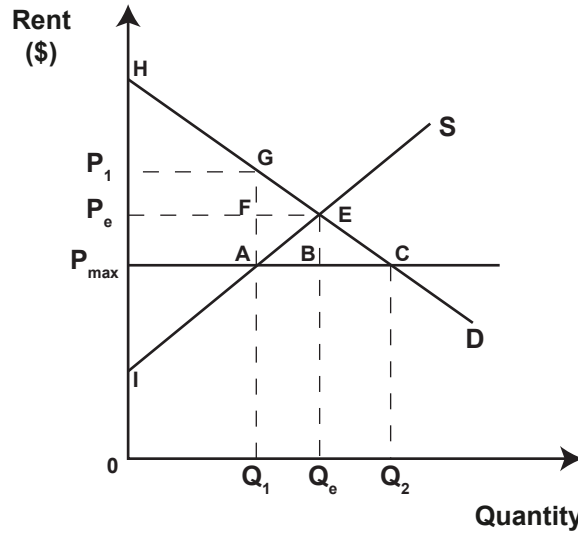
(b) (i) Complete Table Two below by identifying the relevant labels from Graph Five showing the changes as a result of a maximum rent control.

Table Two

	Labels from Graph Five
Consumer surplus before maximum rent control	
Consumer surplus after maximum rent control	
Producer surplus before maximum rent control	
Producer surplus after maximum rent control	
Deadweight loss	

(ii) Referring to both Graph Five and Table Two, compare and contrast the impact on tenants, landlords, and allocative efficiency in the Auckland rental housing market as a result of a maximum rent control. In your answer, explain the change in:
• consumer and producer surplus for tenants and landlords
• allocative efficiency.

More answer space is available on the next page.

QUESTION NUMBER	Extra space if required. Write the question number(s) if applicable.

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