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Level 3 Economics, 2016

91399 Demonstrate understanding of the efficiency of market equilibrium

2.00 p.m. Friday 25 November 2016
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.

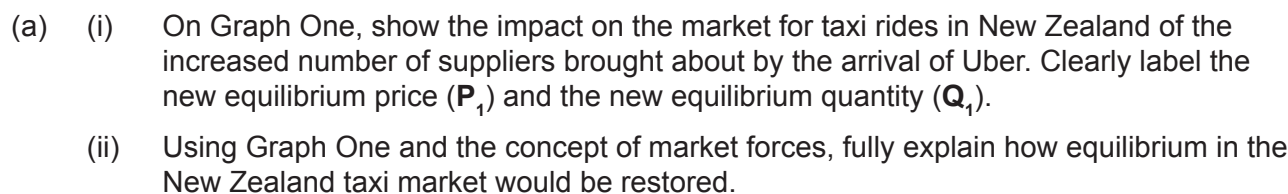
YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

TOTAL

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New Zealand has some of the most expensive taxis in the world. Uber is a mobile app allowing consumers with smartphones to submit trip requests to Uber drivers who are using their own cars as taxis. With the arrival of Uber in New Zealand late last year, the future of the taxi industry is set to be changing ...

Graph One: New Zealand taxi market



A possible intervention by the government that would also result in lower taxi fares is a maximum price control. Graph Two below shows a maximum price (P_{\max}) set below the equilibrium price, P_e .

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- (b) (i) Use Graph Two to complete Table One in order to show the changes as a result of a maximum price control.

Graph Two: New Zealand taxi market – maximum price control

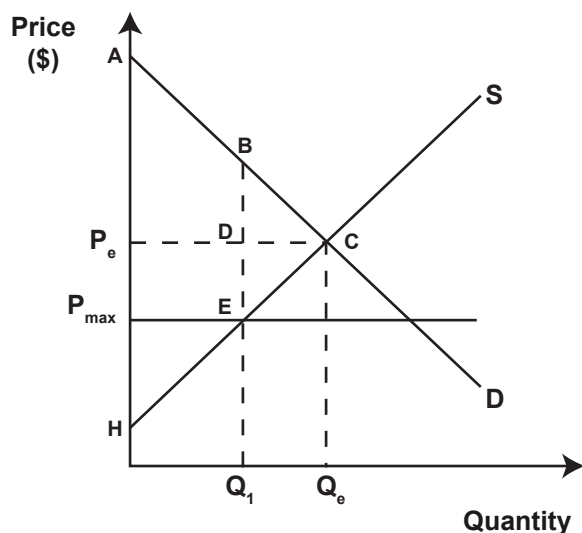


Table One

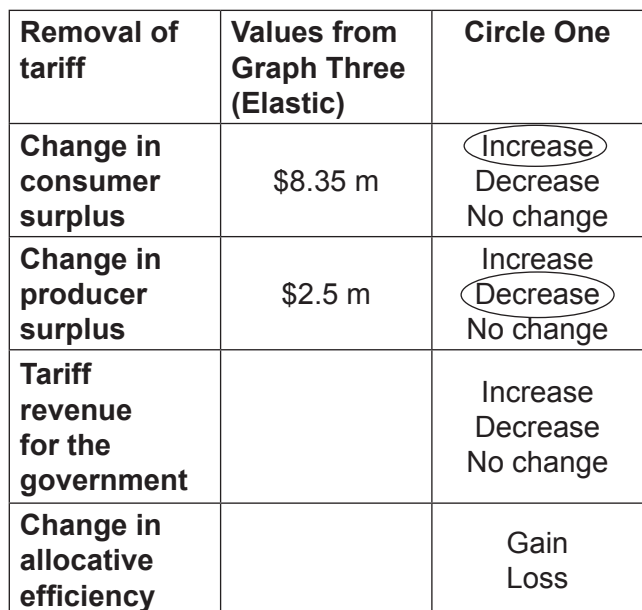
	Labels from Graph Two
Consumer surplus before maximum price	
Consumer surplus after maximum price	
Producer surplus before maximum price	
Producer surplus after maximum price	
Deadweight loss	

- (ii) Using both Graph Two and Table One, compare and contrast the impact on consumers, producers, and allocative efficiency in the New Zealand taxi market as a result of a maximum price.

New Zealand imports a wide range of goods from all over the world, including electronic equipment, pharmaceuticals, vehicles, toys, clothing, and footwear. The demand for some of New Zealand's imports is elastic; demand for others is inelastic.

(a) (i) Use Graph Three and the values provided to complete Table Two. The first two calculations have been done for you.

Table Two



- (b) Use Graph Four and the values provided to complete Table Three.

**Graph Four: Imported Goods
with Inelastic Demand**

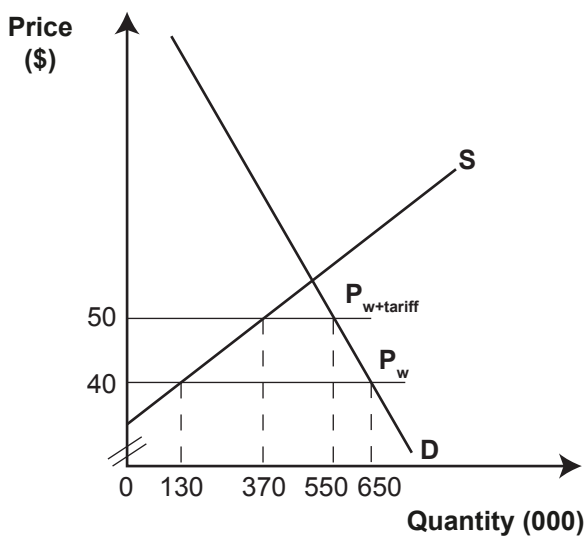


Table Three

Removal of tariff	Values from Graph Four (Inelastic)	Circle One
Change in consumer surplus		Increase Decrease No change
Change in producer surplus		Increase Decrease No change

- (c) Compare and contrast the impact of the removal of tariffs on consumer surplus and producer surplus when goods have different elasticity of demand. In your answer, refer to Table Two and Table Three and both graphs. Fully explain any difference in the impact on consumer and producer surplus.

More answer space is available on the next page.

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The examination continues on the following page.**

QUESTION THREE: IMPACT OF INDIRECT TAX AND QUOTA

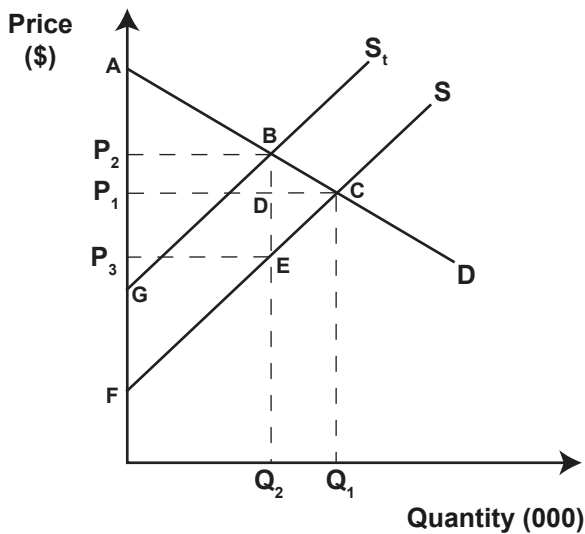
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A tax on fizzy drinks could save lives and generate millions in revenue for health programmes in New Zealand. High sugar intakes are linked to obesity, type 2 diabetes, and cardiovascular disease; a strong case can, therefore, be made for efforts to reduce consumption.

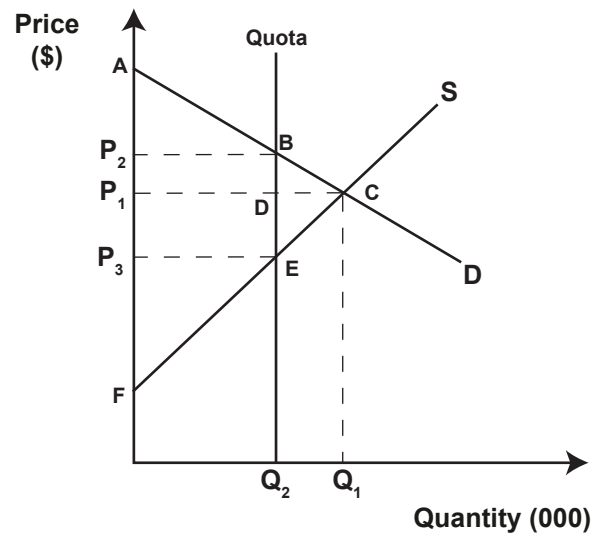
Source (adapted): <http://www.otago.ac.nz/wellington/otago066842.pdf>

Graphs Five and Six show the effects of two possible government interventions to reduce consumption of sugary foods by the same amount. P_1Q_1 is the equilibrium before government intervention.

Graph Five: Market for sugary foods – indirect tax



Graph Six: Market for sugary foods – quota






- (a) (i) The government may use an indirect tax to encourage a reduction in sugar consumption. Use Graph Five above to complete Table Four below by clearly identifying the relevant labels as a result of an indirect tax on sugary foods.

Table Four

	Labels from Graph Five
Change in consumer surplus	
Change in producer surplus	
Tax revenue for the government	
Deadweight loss	

- (ii) Alternatively, the government could restrict the availability of sugary foods by imposing a quota on producers to limit their supply. On Graph Six above, show the impact of a quota on sugary foods by clearly shading in and labelling the area representing:

- new consumer surplus 
- new producer surplus 
- deadweight loss. 

- (b) Refer to both Graphs Five and Six, and Table Four, to compare and contrast the impact of an indirect tax and a quota on the market for sugary foods. In your answer, fully explain:
- the impact on consumers, producers, and the government of an indirect tax on sugary foods
 - the impact on allocative efficiency of the indirect tax and the quota
 - whether the indirect tax or the quota will be more effective in reducing the consumption of sugary foods.

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

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QUESTION
NUMBER