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91399



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

QUESTION ONE: CHANGES IN THE TAXI MARKET

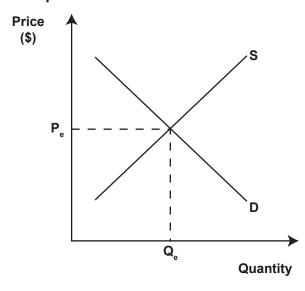
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New Zealand has some of the most expensive taxis in the world. Uber is a mobile app allowing consumers with smartphones to submit trip requests to Uber drivers who are using their own cars as taxis. With the arrival of Uber in New Zealand late last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

 $Sources\ (adapted): http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1\&objectid=11255026, https://en.wikipedia.org/wiki/Uber_(company)$

Graph One: New Zealand taxi market



(a) (i) On Graph One, show the impact on the market for taxi rides in New Zealand of the increased number of suppliers brought about by the arrival of Uber. Clearly label the new equilibrium price (\mathbf{P}_1) and the new equilibrium quantity (\mathbf{Q}_1).

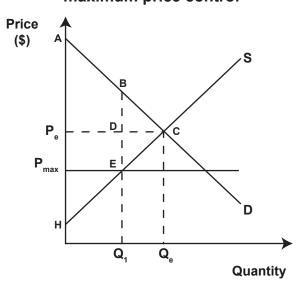
Using Graph One and the concept of market forces, fully explain how equilibrium in the New Zealand taxi market would be restored.			

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 (\mathbf{P}_{max}) set below the equilibrium price, \mathbf{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



(ii)

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	

aximum price.			

QUESTION TWO: IMPACT OF TARIFF REMOVAL ON IMPORTED GOODS

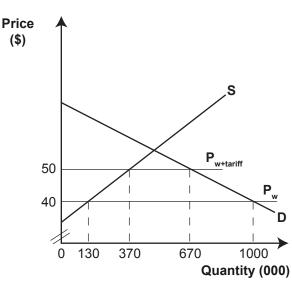
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New Zealand imports a wide range of goods from all over the world, including electronic equipment, pharmaceuticals, vehicles, toys, clothing, and footwear. The demand for some of New Zealand's imports is elastic; demand for others is inelastic.

The removal of tariffs has varying impacts if applied to imports with different elasticities of demand.

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

Graph Three: Imported Goods with Elastic Demand



(ii)

Table Two

Removal of tariff	Values from Graph Three (Elastic)	Circle One
Change in consumer surplus	\$8.35 m	Increase Decrease No change
Change in producer surplus	\$2.5 m	Increase Decrease No change
Tariff revenue for the government		Increase Decrease No change
Change in allocative efficiency		Gain Loss

nported goods that are elastic in demand.				

Referring to Graph Three and Table Two, fully explain the impact on consumers,

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

Graph Four: Imported Goods with Inelastic Demand

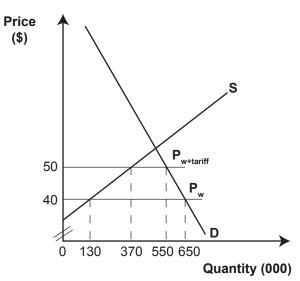


Table Three

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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QUESTION THREE: IMPACT OF INDIRECT TAX AND QUOTA

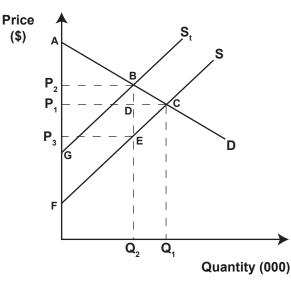
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A tax on fizzy drinks could save lives and generate millions in revenue for health programmes in New Zealand. High sugar intakes are linked to obesity, type 2 diabetes, and cardiovascular disease; a strong case can, therefore, be made for efforts to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

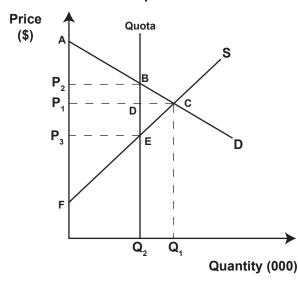
Source (adapted): http://www.otago.ac.nz/wellington/otago066842.pdf

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

Graph Five: Market for sugary foods – indirect tax



Graph Six: Market for sugary foods – quota

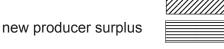


(a) (i) The government may use an indirect tax to encourage a reduction in sugar consumption. Use Graph Five above to complete Table Four below by clearly identifying the relevant labels as a result of an indirect tax on sugary foods.

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



deadweight loss.

(b)

Refeindi	er to both Graphs Five and Six, and Table Four, to compare and contrast the impact of an rect 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	ASSESSOR USE ONLY
	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 applic	cable
QUESTION NUMBER	White the question number (s) it applies	audio.