

# 3

91399



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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**

ASSESSOR'S USE ONLY











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The examination continues on the following page.**

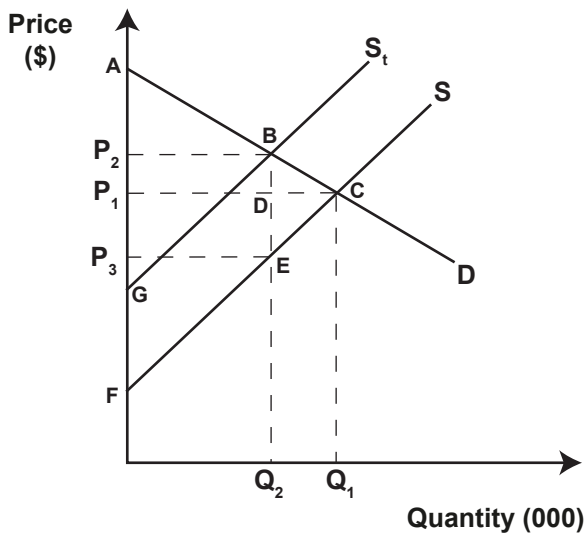
**QUESTION THREE: IMPACT OF INDIRECT TAX AND QUOTA**

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.

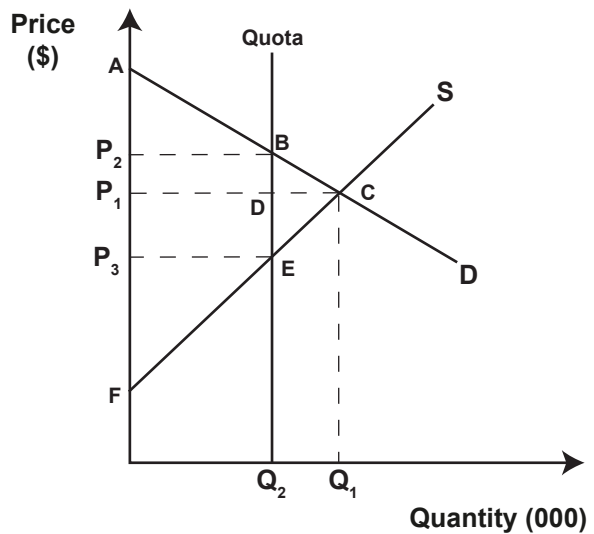
Source (adapted): <http://www.otago.ac.nz/wellington/otago066842.pdf>

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. 