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Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Level 3 Economics 2024

91399 Demonstrate understanding of the efficiency of market equilibrium

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 2–14 in the correct order and that none of these pages is blank.

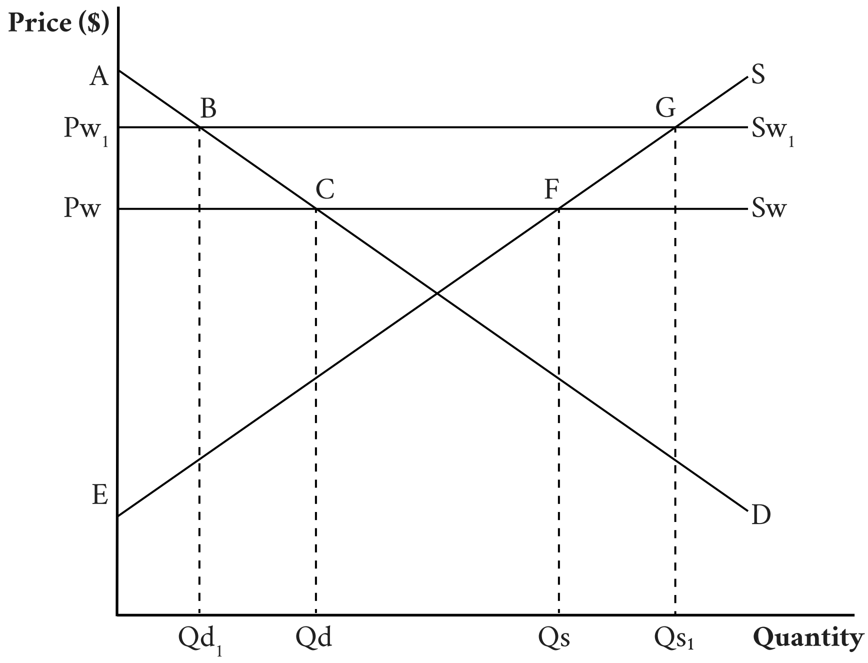
Do not write in the margins (////). This area will be cut off when the booklet is marked.

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

QUESTION ONE: Increase in the world price

Graph One shows the world price increasing for a product that New Zealand exports.

Graph One: The market for a New Zealand export product – impact of an increase in world price



(a) (i) Complete Table One by using the labels in Graph One to identify the prices and quantities.

Table One

	Before world price increase	After world price increase
Price NZ consumers pay		
Price NZ producers receive		
Quantity consumed by NZ consumers		
Quantity sold by NZ producers		

(ii) Complete Table Two by using the labels in Graph One to identify the surpluses and deadweight loss.

Table Two

	Before world price increase	After world price increase
Consumer surplus		
Producer surplus		
Deadweight loss (if any)		

(iii) Explain why the world price is a horizontal line.

Refer to Graph One, Table One, and Table Two in your answer to part (b) below.

(b) Explain in detail the impacts the increase in the world price on a product that New Zealand exports might have on the following:

New Zealand consumers

Question One (b) continues on page 4 ➤

New Zealand producers (exporters)

Refer to Graph One and Table Two in your answer to part (c) below.

(c) Explain the impact of the increase in the world price on the market for a product that New Zealand exports on allocative efficiency.

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The assessment continues on the following page.

QUESTION TWO: Indirect tax

[redacted]

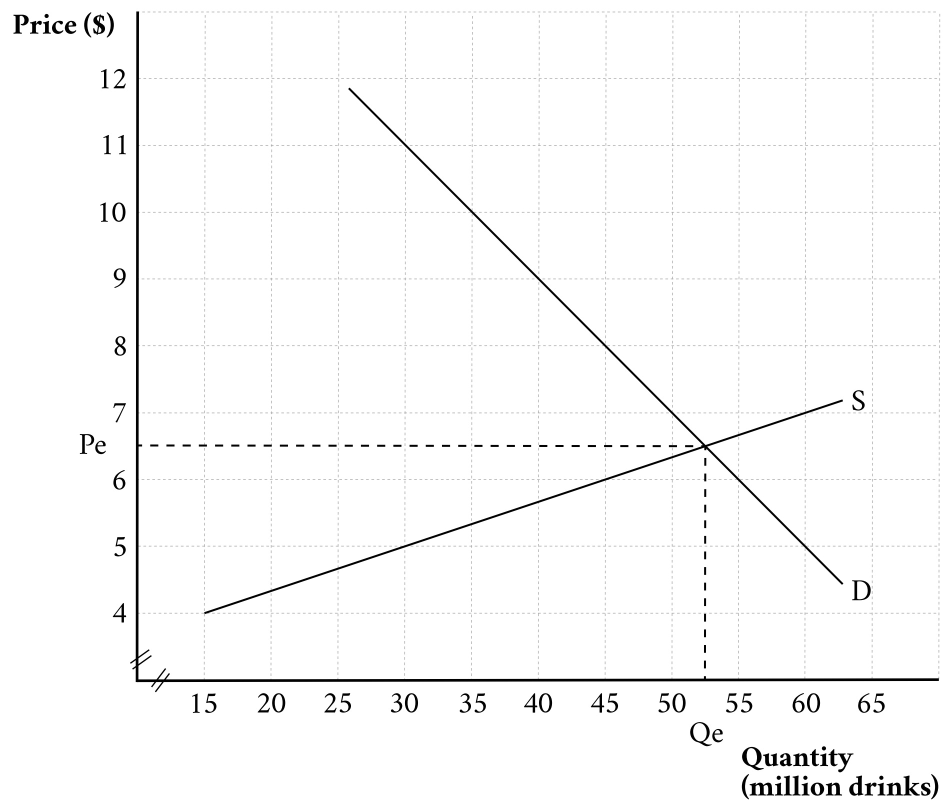
[redacted]

Source: Taunton, E. (2023, May 31) Here's why your beer and wine will soon cost more. *Stuff*. https://www.stuff.co.nz/business/132192469/heres-why-your-beer-and-wine-will-soon-cost-more

There is more than one reason for increasing the tax on alcohol. One of them is to discourage consumption.

Graph Two shows the market for alcoholic drinks at equilibrium with equilibrium price (P_e) and quantity (Q_e).

Graph Two: The market for alcoholic drinks – impact of an indirect tax



(a) A $2 per drink indirect tax is imposed on the market for alcoholic drinks.

(i) Complete Graph Two above by:

- adding and labelling a new curve showing the increase in indirect tax
- identifying and labelling the new equilibrium price (P_1), and quantity (Q_1)
- identifying and labelling the resulting shortage or surplus at the original price (P_e).

Refer to the relevant figures or labels from Graph Two and the concept of market forces in your answer to (ii) below.

(ii) Explain how equilibrium would be restored in the market for alcoholic drinks following an increase in indirect tax.

(b) Using figures from Graph Two, calculate the values for the following. Circle increase or decrease where appropriate.

- Change in consumer surplus: $________ million increase or decrease
- Change in producer surplus: $________ million increase or decrease
- Total tax revenue: $________ million
- Deadweight loss: $________ million

Refer to Graph Two and the calculations in part (b) in your answer to (c) below.

(c) Explain the impact of the indirect tax of $2 per drink on the following in the market for alcoholic drinks.

Consumer surplus

Producer surplus

Allocative efficiency

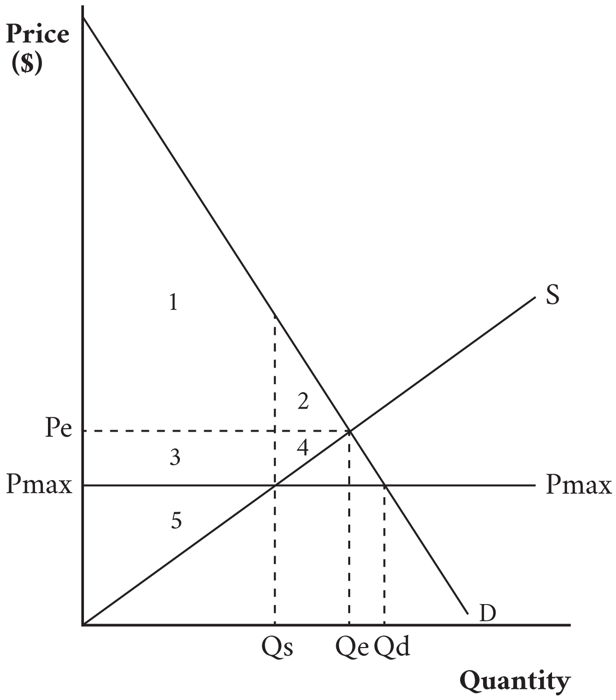
QUESTION THREE: Maximum price control and elasticity

To help ease the impact of the cost of living crisis, the Government could impose a maximum price on some grocery items.

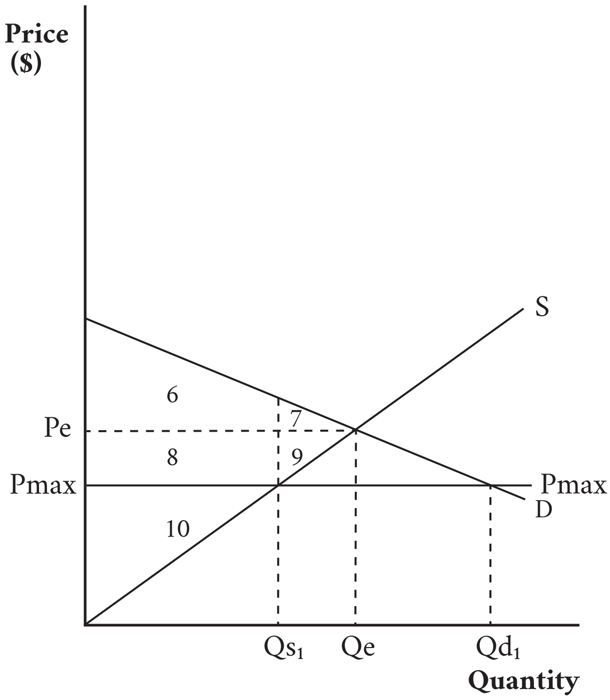
Graph Three shows a maximum price control on an item with an inelastic demand.

Graph Four shows a maximum price control on an item with an elastic demand.

Graph Three: Inelastic



Graph Four: Elastic



(a) (i) Complete Table Three by using the numbers in Graph Three and Graph Four to identify the surpluses and deadweight loss.

Table Three

	Graph Three (inelastic)	Graph Four (elastic)
Consumer surplus before maximum price control		
Consumer surplus after maximum price control		
Producer surplus before maximum price control		
Producer surplus after maximum price control		
Deadweight loss (if any)		

(ii) Define price elasticity of demand and explain one reason why an item might be elastic.

(b) Compare and contrast the impact the maximum price control might have on consumers, producers, and allocative efficiency. Refer to Graph Three and Graph Four in your answer.

Answer space continues on page 12 ➤

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

QUESTION NUMBER

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