SUPERVISOR'S USE ONLY

3

91400

914000

Draw a cross through the box (☒) if you have NOT written in this booklet

+

NZQA | Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Level 3 Economics 2026

91400 Demonstrate understanding of the efficiency of different market structures using marginal analysis

Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of the efficiency of different market structures using marginal analysis.	Demonstrate in-depth understanding of the efficiency of different market structures using marginal analysis.	Demonstrate comprehensive understanding of the efficiency of different market structures using marginal analysis.

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 2–15 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.

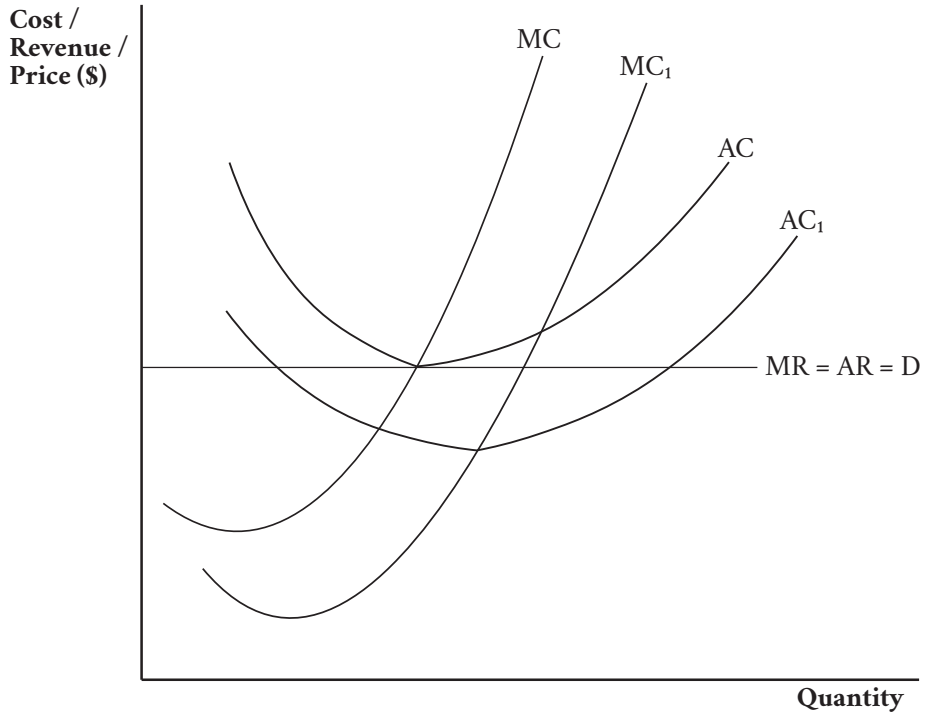
YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

© New Zealand Qualifications Authority, 2026. All rights reserved.
No part of this publication may be reproduced by any means without the prior permission of the New Zealand Qualifications Authority.

QUESTION ONE: Perfect competition and change in costs

Dairy farming is an example of perfect competition. Developments in farming technology in recent years have led to efficiency gains, increasing milk production while reducing overall costs. More efficient machines have meant more milk output despite less time being spent in the milking shed, leading to lower energy and chemical costs.

Graph One: An individual dairy farmer experiencing a change in costs



(a) Select (✔) ONE type of cost that has changed in Graph One, and whether this cost has increased or decreased considering its MC and AC curves have shifted to MC_1 and AC_1.

Cost type		Change	
☐	Fixed cost	☐	Increased
☐	Variable cost	☐	Decreased

Refer to the resource material and Graph One on page 2 in your answer to part (b) below.

(b) Explain a specific example of the cost you identified in part (a) and why it would shift the MC and AC curves to the right to MC_1 and AC_1.

(c) On Graph One on page 2:

- identify and label the profit maximising price (Pe) and quantity (Qe) before the change in cost
- identify and label the profit maximising price (P_1) and quantity (Q_1) after the change in cost
- shade and label the type of profit made after the change in cost.

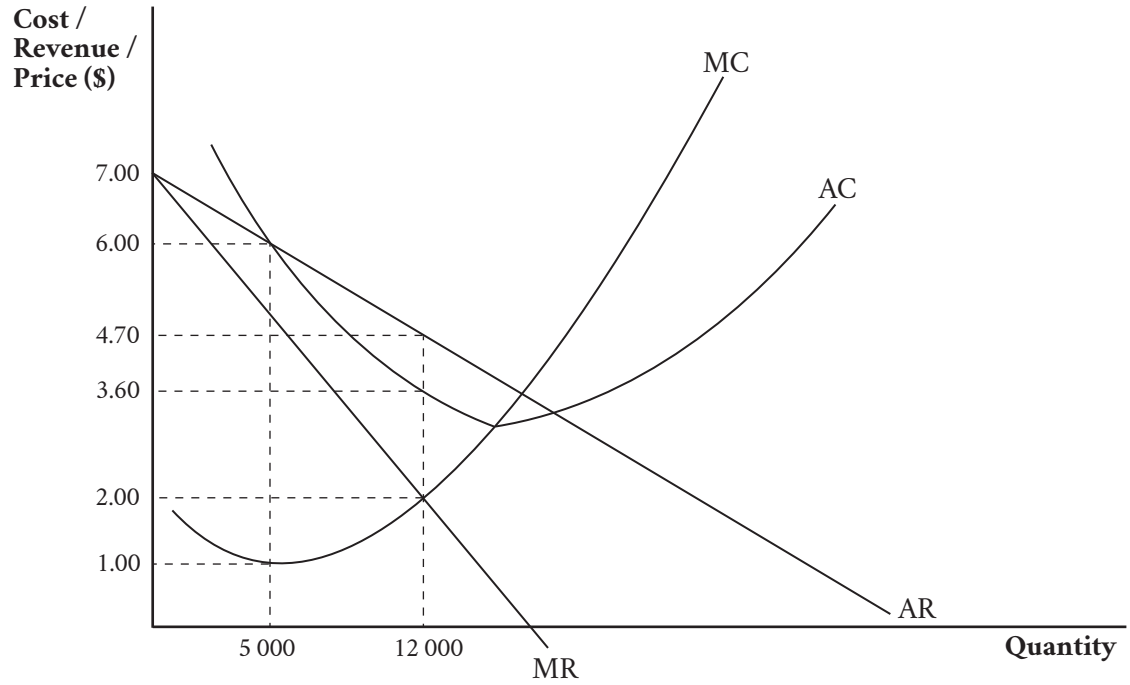
Question continues on the next page ➤

(d) Compare and contrast the individual farmer's profit maximising output and profit before and after the change in costs. In your answer, refer to marginal analysis and Graph One on page 2.

This page has been deliberately left blank.
The assessment continues on the following page.

QUESTION TWO: Monopoly

Graph Two: A monopoly earning supernormal profit



(a) (i) Using Graph Two, complete Table One below by stating the profit maximising price and quantity and calculating the supernormal profit.

Table One

Profit maximising price	**$**
Profit maximising quantity	**units**
Supernormal profit Show your working	**$**

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

(ii) Explain whether the monopoly is likely to continue to earn a supernormal profit in the long run. In your answer, include the characteristics of a monopoly.

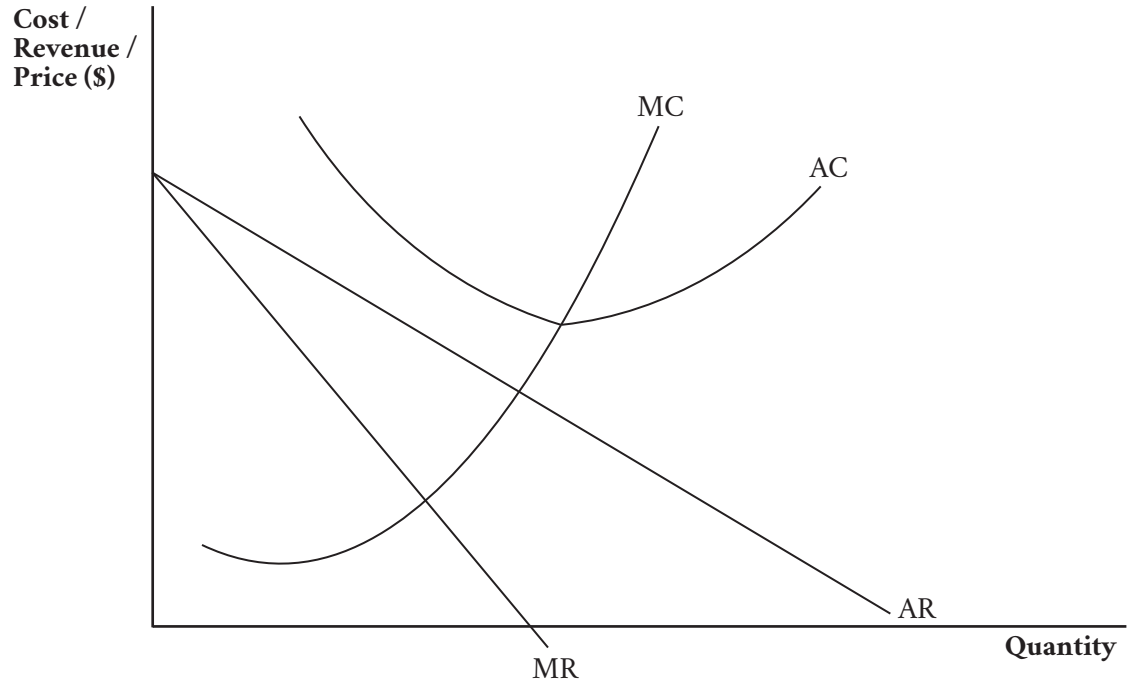
Refer to Graph Two on page 6 in your answer to part (iii) below.

(iii) Using marginal analysis, explain whether the monopoly is likely to choose to produce 5 000 units of output.

Question continues on the next page ➤

Subnormal profits could lead to businesses closing, but monopolies aren't always free to leave the market. High fixed costs often force businesses to endure losses in the short run before a long run exit becomes feasible.

Graph Three: A monopoly making a subnormal profit



(b) (i) On Graph Three above:

- identify and label the loss minimising price (P_1), and quantity (Q_1)
- shade and label the subnormal profit.

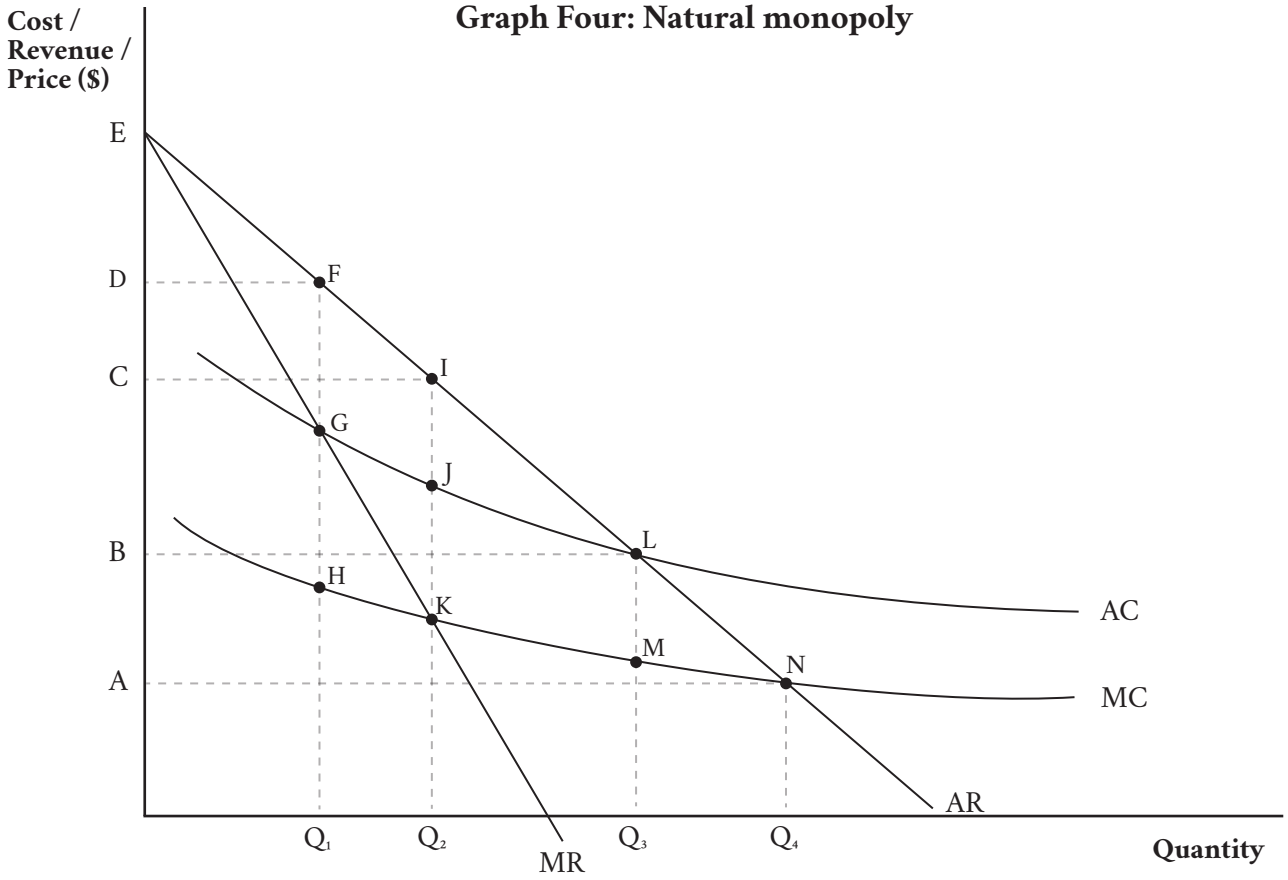
Refer to Graph Three on page 8, the changes you made to it, and the resource material in your answer to part (ii) below.

(ii) Explain how and why the monopoly will leave the market in the long run despite high barriers to exit. In your answer, include the definition of subnormal profit, and an example of a short run fixed cost and what happens to it in the long run.

QUESTION THREE: Natural monopoly

In New Zealand, a natural monopoly occurs in industries where the infrastructure costs are so high that it is more efficient for only one firm to supply the entire market. If a second firm tried to enter and build its own competing infrastructure, both would likely fail. The Government could regulate the single firm to ensure affordable pricing for essential services.

Graph Four: Natural monopoly



(a) (i) Use the labels in Graph Four to complete Table Two below.

Table Two

	Profit maximising	Marginal cost pricing
Output		
Price		
Consumer surplus		

Refer to Graph Four and Table Two on page 10 in your answer to part (ii) below.

(ii) Explain the impact on consumers of the Government regulating the natural monopoly to price at marginal cost.

Question continues on the next page ➤

(b) (i) On Graph Four on page 10, shade and label the type of profit made under:

- marginal cost pricing (regulated) (▦)
- profit maximising (unregulated) (▨).

Refer to Graph Four on page 10 and the changes you made to it in part (i) above in your answer to part (ii) below.

(ii) Explain the impact on the Government if the natural monopoly was left unregulated compared to if it was regulated to price at marginal cost.

(c) (i) Using the labels in Graph Four on page 10, identify the deadweight loss, if it exists, under:

- marginal cost pricing _____
- profit maximising _____

Refer to Graph Four and your answers to part (i) above in your answer to part (ii) below.

(ii) Explain the impact on allocative efficiency if the natural monopoly was left unregulated compared to if it was regulated to price at marginal cost.

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

QUESTION NUMBER

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

QUESTION NUMBER