Assessment Schedule – 2025

Economics: Demonstrate understanding of the efficiency of market equilibrium (91399)

Assessment Criteria

Achievement	Achievement with Merit	Achievement with Excellence
*Demonstrating **understanding** of the efficiency of market equilibrium* involves:	*Demonstrating **in-depth understanding** of the efficiency of market equilibrium* involves:	*Demonstrating **comprehensive understanding** of the efficiency of market equilibrium* involves:
• providing an explanation of market equilibrium and / or changes in market equilibrium, and of efficiency in the market	• providing a detailed explanation of market equilibrium and / or changes in market equilibrium, and the impact of changes in markets on efficiency in the market	• analysing the impact of a change in a market on efficiency by comparing and / or contrasting the different impacts on participants (i.e. consumer, producer, and, where appropriate, government) in that market
• using an economic model(s) to illustrate concepts relating to the efficiency of market equilibrium.	• using an economic model(s) to illustrate complex concepts and / or support detailed explanations relating to the efficiency of market equilibrium.	• integrating an economic model(s) into explanations relating to the efficiency of market equilibrium that compare and / or contrast the different impacts.

Evidence

<table>
<tr><th>Q1</th><th colspan="3">Sample evidence</th><th>Achievement</th><th>Achievement with Merit</th><th>Achievement with Excellence</th></tr>
<tr><td rowspan="5">(a)</td><td></td><td>Graph One (inelastic)</td><td>Graph Two (elastic)</td><td rowspan="5">6 of 8 labels correct.</td><td rowspan="5">8 of 8 labels correct.</td><td rowspan="5"></td></tr>
<tr><td>Decrease in consumer surplus</td><td>P_1ABPe</td><td>P_2EFPe</td></tr>
<tr><td>Decrease in producer surplus</td><td>$PeBCP_3$</td><td>$PeFGP_4$</td></tr>
<tr><td>Tax revenue</td><td>$P1ACP_3$</td><td>$P2EGP_4$</td></tr>
<tr><td>Deadweight loss</td><td>ABC</td><td>EFG</td></tr>
<tr><td>(b)(i)</td><td colspan="3">The indirect tax decreases consumer surplus by P_1ABPe when demand is inelastic, which is more than P_2EFPe when demand is elastic. Consumer surplus (CS) decreases because the indirect tax increases the price consumers pay from Pe to P_1 (and Pe to P_2 when elastic), reducing the difference between the price they are willing to pay and what they actually pay. Consumers also consume fewer units, from Qe to Q_1 (and Qe to Q_2 when elastic), giving them fewer units from which to gain surplus.

Consumer surplus decreases more when demand is inelastic compared to when demand is elastic, i.e. $P_1ABPe > P_2EFPe$, because the same amount of indirect tax results in a relatively smaller decrease in quantity demanded when demand is inelastic, but a larger (than proportional) increase in price for consumers. This is because an inelastic good is one with few substitutes or is a necessity, so that when prices increase, most consumers tend to continue buying it with little decrease in quantity demanded as they rely on it or have little / no alternative to switch to, leading to a smaller than proportional decrease in quantity demanded. The greater increase in the price consumers pay causes a larger decrease in consumer surplus. (Accept idea or direct reference to incidence of tax.)</td><td>Explains:
• CS decreases due to the higher price OR the lower quantity (for either inelastic or elastic demand)
• when demand is inelastic, a price increase leads to a smaller than proportional decrease in quantity demanded OR a valid reason for inelastic demand
• the Government will generate more tax revenue if taxing inelastic goods OR will be more successful in discouraging consumption if demand is elastic.</td><td>Explains in detail:
• CS decreases due to the higher price AND the lower quantity, AND CS decreases more when demand is inelastic
• when demand is inelastic, a price increase leads to a smaller than proportional decrease in quantity demanded, AND gives a valid reason for inelastic demand
• the Government will generate more tax revenue if taxing an inelastic good, with reference to area of tax and QD decreasing proportionally less OR the tax will be more successful in discouraging consumption if demand is elastic, with reference to QD decreasing proportionally more.

Refers to Graph One, Graph Two, and Table One.</td><td>Explains in detail:
• CS decreases due to the higher price AND the lower quantity, AND there are fewer units from which to gain a surplus OR the difference between the price paid and the price consumers are willing to pay decreases
• AND CS decreases more when demand is inelastic, with a definition of inelastic demand and a reason why demand might be inelastic
• AND price consumers pay increasing proportionally more
• the Government will generate more tax revenue if taxing an inelastic good, with reference to area of tax and QD decreasing proportionally less
• AND the tax will be more successful in discouraging consumption if demand is</td></tr>
</table>

(ii)	The Government collects P_1ACP_3 in tax revenue if the good is inelastic, which is more than P_2EGP_4 if the good is elastic, therefore it should place the tax on the inelastic good. This is because when demand is inelastic, the decrease in quantity demanded is proportionally smaller than the increase in price, so the same per unit tax multiplied by Q_1 will generate more tax revenue than if multiplied by Q_2. The decrease in quantity demanded is greater when an indirect tax is placed on a good that is elastic rather than inelastic, i.e. Qe to Q_2 is a larger decrease than Qe to Q_1, meaning more consumers will stop consuming the good. Therefore, if the Government's purpose is to discourage consumption, they will be more successful if the good is elastic.			elastic, with reference to QD decreasing proportionally more. Refers to Graph One, Graph Two, and Table One.

N1	N2	A3	A4	M5	M6	E7	E8
Very little Achievement evidence.	Some Achievement evidence, partial explanations.	Most Achievement evidence.	Nearly all Achievement evidence.	Some Merit evidence.	Most Merit evidence.	Excellence evidence. One part may be weaker.	All points covered.
				Must refer to Graph One, Graph Two, and Table One.		Integrates relevant information from Graph One, Graph Two, and Table One.	

N0 = No response; no relevant evidence.

Q2	Sample evidence	Achievement	Achievement with Merit	Achievement with Excellence
(a)	See Appendix.	FOUR of: - Sw + tariff line drawn above Pw (and below equilibrium) and labelled - Qs and Qd correct - new CS shading - new PS shading - tariff revenue shading - DWL shading.	SIX of: - Sw + tariff line drawn above Pw (and below equilibrium) and labelled - Qs and Qd correct - new CS shading - new PS shading - tariff revenue shading DWL shading.	
(b)	Consumers The tariff makes consumers worse off, as it decreases the consumer surplus to a smaller shaded area ( ) . This is because consumers are paying a higher price, from Pw to Pw + tariff or (Pw_1, consistent with changes made on the graph) and purchasing a lower quantity from Q_2 to Qd. Therefore, there are fewer units from which to gain a surplus, and the difference between the price consumers are paying and the price they are willing to pay for textiles and clothing decreases. Producers New Zealand producers of textiles and clothing benefit as their surplus will increase due to receiving a higher price, i.e. from Pw to Pw + tariff (or Pw_1), and selling a greater quantity, i.e. from Q_1 to Qs. Therefore, there are more units from which to gain a surplus, and the difference between the price New Zealand producers of textiles and clothing are willing to accept and what they actually receive increases. Producer surplus increases to a larger shaded triangle ( ). The tariff is aimed at protecting domestic industries, and is more beneficial for producers of New Zealand-made textiles and clothing than importers of similar products. They will have a greater market share as imports will decrease from Q_1Q_2 to QsQd. They will increase their competitiveness as importers of similar products will need to pay the tariff while local producers do not. The local	Explains: • a tariff will decrease CS due to consumers paying a higher price OR purchasing a lower quantity • a tariff will increase PS due to them receiving a higher price OR selling a larger quantity • a tariff will result in a loss of allocative efficiency, as it creates a deadweight loss OR total surpluses are not maximised • the Government gains tariff revenue.	Explains in detail: • a tariff will decrease CS due to consumers paying a higher price, so the difference between the price they are willing to pay and the price they actually pay decreases OR due to purchasing a lower quantity, so there are fewer units from which to gain a surplus • New Zealand producers of textiles and clothing will benefit from increased PS due to the higher price received, so the difference between the price they are willing to accept and the price they actually receive increases OR due to selling a greater quantity so there are more units from which to gain a surplus • a tariff is more beneficial for the producers of New Zealand-made textiles and clothing, with a valid reason given	Explains in detail: • a tariff will decrease CS due to consumers paying a higher price AND purchasing a lower quantity, so there are fewer units from which to gain a surplus OR the difference between the price they are willing to pay and the price they actually pay decreases • New Zealand producers of textiles and clothing will benefit from increased PS due to the higher price received AND selling a greater quantity, so there are more units from which to gain a surplus OR the difference between the price they are willing to accept and the price they actually receive increases AND they benefit more because of improved competitiveness or increased market share or have an option to lower prices

	producers gain greater revenue from selling at a higher price and selling more units. (Accept that the local producers may even choose to undercut the importers and charge lower prices, or other valid explanations for a tariff being more beneficial to NZ producers.) The Government The Government will receive tariff revenue represented by the shaded area ▭.This could be used to fund public services, like healthcare or education, or to further support domestic industries by providing grants for research and development. Allocative efficiency There will be a loss of allocative efficiency because the loss of consumer surplus will not be fully offset by the gain in producer surplus and the tariff revenue collected by the Government, resulting in a deadweight loss represented by the two triangles shaded ▨. This means that the sum of CS and PS is not maximised.		• the Government gains tariff revenue that can be used to fund healthcare, etc. • a tariff will result in a loss of allocative efficiency as it creates a deadweight loss because the loss of CS is not fully offset by the gain in PS and tariff revenue for the Government, AND the sum of CS and PS is not maximised. Refers to Graph Three.	• the Government gains tariff revenue that can be used to fund healthcare, etc. • a tariff will result in a loss of allocative efficiency as it creates a deadweight loss because the loss of CS is not fully offset by the gain in PS and tariff revenue for the Government, so the sum of CS and PS is not maximised. Refers to Graph Three and the resource material.

N1	N2	A3	A4	M5	M6	E7	E8
Very little Achievement evidence.	Some Achievement evidence, partial explanations.	Most Achievement evidence.	Nearly all Achievement evidence.	Some Merit evidence.	Most Merit evidence.	Excellence evidence. One part may be weaker.	All points covered.
				Must refer to Graph Three.		Integrates relevant information from Graph Three and resource material into explanation.	

N0 = No response; no relevant evidence.

Q3	Sample evidence	Achievement	Achievement with Merit	Achievement with Excellence
(a)(i)	See appendix.	TWO correct and labelled: - Qs, Qd, - shortage - .		
(ii)	At the current price (P_1), quantity demanded (Qd) of medicines is greater than quantity supplied (Qs), resulting in a shortage. Consumers, i.e. New Zealanders requiring the medicines for their health conditions, will compete amongst themselves to secure the medicines that are in short supply by bidding the price up. As the price rises, producers are incentivised to increase their quantity supplied as supplying medicines becomes more profitable. As the price increases, some consumers are driven out of the market as medicines become less and less affordable. As the price continues to rise, quantity demanded will continue to fall, while quantity supplied will continue to rise until QD = QS and equilibrium will be restored at price Pe and quantity Qe.	THREE of: - shortage created at price P_1 - consumers bid price up - QD decreases - QS increases - equilibrium restored where QD = QS.	FOUR of: - shortage created at price P1 as QD > QS - consumers bid price up to secure quantity wanted - QD decreases as less affordable - QS increases as more profitable - equilibrium restored where QD = QS at equilibrium price of Pe and equilibrium quantity of Qe.	ALL of: - shortage created at price P1 as QD > QS - consumers bid price up to secure quantity wanted - QD decreases as less affordable - QS increases as more profitable - equilibrium restored where QD = QS at equilibrium price of Pe and equilibrium quantity of Qe. Explanation is in context of the market for medicines.
(iii)	See appendix from (a)(i).	THREE correct and labelled: - S_1 added to the right of S, at the correct location where shortage is removed - total cost of subsidy - Pp - DWL (as ABC).		
(b)	Consumers A subsidy will benefit consumers as it will increase the consumer surplus by $PeCBP_1$. This is because consumers will be paying a lower price (decreasing from Pe to P_1), so the difference between the price they are willing to pay and what they actually pay increases. At lower prices, consumers will purchase a higher quantity (Qe to Qd), increasing their access to medicines. Therefore, there are more units from which consumers will gain a surplus.	Explains ONE of: • CS increases due to the lower price OR the higher quantity • PS increases due to the higher price OR the higher quantity • the subsidy will cost the Government, which means that spending in other	Explains in detail: • CS increases due to the lower price AND the higher quantity • PS increases due to the higher price AND the higher quantity • the subsidy will cost the Government, which means that spending in other	Explains in detail: • the subsidy benefits consumers as CS increases due to the lower price AND the higher quantity, so there is increased access to medicines, which means more units from which to gain a surplus OR the difference between the price paid and

	Producers A subsidy will also benefit producers as it will increase the producer surplus by PePpAC. This is because producers will be receiving a higher price (increasing from Pe to Pp) so the difference between the price they are willing to accept and what they actually receive increases. They also sell a larger quantity (i.e. from Qe to Qd), so there are more units from which producers will gain a surplus. Government The shaded area represents the total cost to the Government to subsidise medicines. The money spent on the subsidy cannot be spent elsewhere in the economy, e.g. education, or it may require the Government to take on more debt. Despite this, the Government will be able to justify the continued funding of the medicines subsidy because consumers will have greater access to medicines that they need, and this will lead to improved health outcomes for New Zealanders. Better health outcomes for New Zealanders now will reduce long-term cost pressures on the health system, so less will need to be spent in the future. This provides a strong justification for the Government to continue subsidising medicines, despite funding pressures. Allocative efficiency There is a loss of allocative efficiency, as the cost to the Government of the subsidy (shaded area) is not fully offset by the combined gain in producer surplus and consumer surplus. This results in a deadweight loss of the area ABC, which means that the sum of consumer surplus and producer surplus is not maximised.	sectors may have to be reduced • there will be a loss of allocative efficiency due to the DWL created OR as the sum of CS and PS is no longer maximised.	sectors (with example) may have to be reduced or may increase debt • there will be a loss of allocative efficiency due to the DWL created as the combined gain in CS and PS is outweighed by the cost to the Government funding the subsidy (must have offsetting idea). Refers to Graph Three.	the price consumers are willing to pay increases • the subsidy benefits producers as PS increases due to the higher price AND the higher quantity, so there are more units from which to gain a surplus OR the difference between the price received and the price producers are willing to accept increases • the subsidy will cost the Government, which means that spending in other sectors (with example) may have to be reduced or may increase debt AND the subsidy will improve health outcomes, so less pressure on the health system in the long term justifies continued funding of the subsidy • there will be a loss of allocative efficiency due to the DWL created, as the combined gain in CS and PS is outweighed by the cost to the Government funding the subsidy (must have offsetting idea) AND the sum of consumer and producer surplus is not maximised. Refers to Graph Three and resource material.

N1	N2	A3	A4	M5	M6	E7	E8
Very little Achievement evidence.	Some Achievement evidence, partial explanations.	Most Achievement evidence.	Nearly all Achievement evidence.	Some Merit evidence.	Most Merit evidence.	Excellence evidence. One part may be weaker.	All points covered.
				Must refer to Graph Four.		Integrates relevant information from Graph Four and resource material into explanation.	

N0 = No response; no relevant evidence.

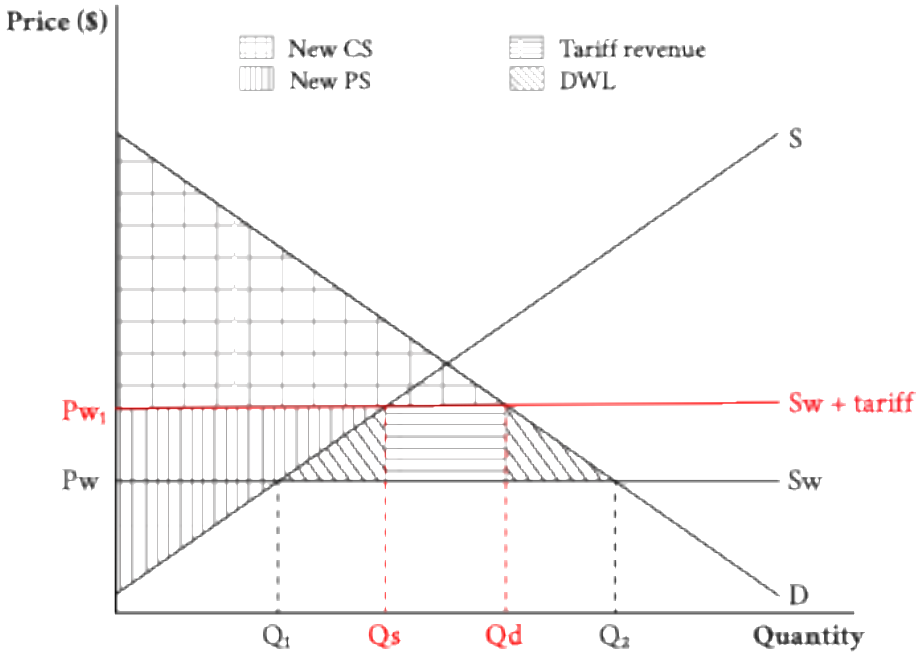
Cut Scores

Not Achieved	Achievement	Achievement with Merit	Achievement with Excellence
0–6	7 – 13	14 – 19	20 –24

Appendix

Question Two (a)

Graph Three: The market for textiles and clothing



Question Three (a)(i) & (iii)

Graph Four: The market for medicines