Assessment Schedule – 2020

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: • providing an explanation of market equilibrium and / or changes in market equilibrium, and of efficiency in the market	Demonstrating **in-depth understanding** of the efficiency of market equilibrium involves: • providing a detailed explanation of market equilibrium and / or changes in market equilibrium, and of changes in markets on efficiency in the market	Demonstrating **comprehensive understanding** of the efficiency of market equilibrium involves: • 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

Q1	Sample evidence	Achievement	Achievement with Merit	Achievement with Excellence
	Tariff: Imposing a tariff makes consumers worse off, as it decreases the consumer surplus (CS) from the area P_w, g, a to P_w + tariff, c, a. This is because consumers are paying a higher price of P_w + tariff (increased from P_w) and purchasing a lower quantity (Q_4 to Q_3). So, there are fewer units from which to gain a surplus, and the difference between the price consumers are paying and the price consumers are willing to pay has decreased.	**Explains:** • A tariff will decrease CS due to consumers paying a higher price, **OR** purchasing a lesser quantity.	**Explains, in detail:** • A tariff will decrease CS due to consumers paying a higher price, **AND** purchasing a lesser quantity.	**Explains, in detail:** • A tariff will decrease CS due to consumers paying a higher price, **AND** purchasing a lesser quantity. So, there are less units from which to gain a surplus, OR the difference between the price they are paying and the price they are willing to pay has decreased.
	There is a loss of allocative efficiency, as the loss of consumer surplus due to the tariff (area P_w + tariff, c, g, P_w) is not fully offset by the gain in producer surplus plus tariff revenue gained for the government (area P_w + tariff, b, d, P_w plus area b, c, f, e). This results in a deadweight loss of area d, e, b plus area c, f, g, and total surpluses are not maximised.	• A tariff will result in a loss of allocative efficiency as it creates a deadweight loss, OR total surpluses are not maximised.	• A tariff will result in a loss of allocative efficiency as it creates a deadweight loss as the loss of CS is not fully offset by the gain in PS plus tariff revenue for the Govt. So, total surpluses are not maximised.	• A tariff will result in a loss of allocative efficiency as it creates a deadweight loss as the loss of CS is not fully offset by the gain in PS plus tariff revenue for the Govt. So, total surpluses are not maximised.
	Subsidy: A subsidy is beneficial to consumers, as it will increase the consumer surplus by the area P_3, b, c, P_4. This is because consumers will be paying a lower price (decreasing from P_3 to P_4) and purchasing a greater quantity (Q_5 to Q_6). So, there are more units from which to gain a surplus, and the difference between the price consumers are paying and the price consumers are willing to pay has increased.	• A subsidy will increase CS due to consumers paying a lower price, **OR** purchasing a greater quantity.	• A subsidy will increase CS due to consumers paying a lower price, **AND** purchasing a greater quantity.	• A subsidy will increase CS due to consumers paying a lower price, **AND** purchasing a greater quantity. So, there are more units from which to gain a surplus, OR the difference between the price they are paying and the price they are willing to pay has increased.

Q1	Sample evidence	Achievement	Achievement with Merit	Achievement with Excellence
	There is a loss of allocative efficiency, as the cost to the government of the subsidy (area P_2, a, c, P_4) is not fully offset by the gain in producer surplus plus the gain in consumer surplus (area P_3, b, a, P_2, plus area P_3, b, c, P_4). This results in a deadweight loss of the area a, b, c, and total surpluses are not maximised. Both a subsidy and a tariff will benefit producers of NZ-made products, as their surplus will increase due to receiving a higher price and selling a greater quantity. However, a tariff will be more beneficial as producers of NZ-made products will have a greater market share due to the reduction in imports (from Q_1–Q_4 to the gap Q_2–Q_3.). Also, they will be able to undercut importers by charging a lower price as they don't have to pay the tariff. With a subsidy, they can match the lower prices of importers, but may not necessarily increase their market share unless they spend more on non-price competition. OR A subsidy will be more beneficial as producers of NZ-made goods will have increased income from a possible increase in market share due to being able to lower their prices, plus they will benefit from increased profits due to the subsidy lowering their costs of production. With a tariff the producers are not receiving any Government assistance to lower their costs. *(Other valid explanations for a tariff or subsidy being more beneficial are also acceptable).*	• A subsidy will result in a loss of allocative efficiency as it creates a deadweight loss, OR total surpluses are not maximised.	• A subsidy will result in a loss of allocative efficiency. It creates a deadweight loss as the cost of the subsidy to the Govt. is not fully offset by the gain in CS plus the gain in PS. So, total surpluses are not maximised.	• A subsidy will result in a loss of allocative efficiency. It creates a deadweight loss as the cost of the subsidy to the Govt. is not fully offset by the gain in CS plus the gain in PS. So, total surpluses are not maximised. • A tariff is more beneficial for the producers of NZ-made products, with a valid reason given. **OR** • A subsidy is more beneficial for the producers of NZ-made products, with a valid reason given.

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. Refers to graph.	Most Merit evidence. Refers to graph.	Some Excellence evidence (one part weaker). Fully integrates graph.	Most Excellence evidence. Fully integrates graph.

N0 = No response; no relevant evidence.

Q2	Sample evidence	Achievement	Achievement with Merit	Achievement with Excellence
(a)	Change in CS = \$8 800 decrease Change in PS = \$2 200 decrease Tax revenue = \$10 000 DWL = \$1 000	TWO correct calculations.	THREE correct calculations.	FOUR correct calculations.
(b)	CS decreases by \$8 800 as consumers are paying 16 cents per litre more for the drink and consuming 10 000 litres less. So, they are consuming fewer units from which to generate a surplus, and the difference between the price they are paying and the price they are willing to pay for the drink has decreased.	**Explains** that CS decreases as consumers are paying a higher price, **OR** are consuming a lesser quantity,	**Explains, in detail,** that CS decreases as consumers are paying a higher price **AND** are consuming a lesser quantity.	**Explains, in detail,** that CS decreases as consumers are paying a higher price **AND** are consuming a lesser quantity. So, there are fewer units from which to gain a surplus, OR the difference between the price they are paying and the price they are willing to pay has decreased.
(c)	PS decreases by \$2 200 as producers are receiving 4 cents per litre less for the drink and are selling 10 000 litres less. So, they are selling fewer units from which to gain a surplus, and the difference between the price they are receiving and the price they are willing to supply at has decreased.	**Explains** that PS decreases as producers are receiving a lower price, **OR** are selling a lesser quantity.	**Explains, in detail,** that PS decreases as producers are receiving a lower price **AND** are selling a lesser quantity.	**Explains, in detail,** that PS decreases as producers are receiving a lower price **AND** are selling lesser quantity. So, they are selling fewer units from which to gain a surplus, OR the difference between the price they are receiving and the price they are willing to supply at has decreased.
(d)	The impact of the tax increase will be greatest for the consumers as they have a greater decrease in surplus compared to the producers. This is because the demand for the alcoholic drink is inelastic, as it may be addictive for some consumers, and an increase in price will result in a proportionally lower decrease in the quantity demanded. Hence producers of the drink are able to pass on most of the cost of the tax to the consumers by significantly raising the price. So, consumers will pay 16 cents per litre more whereas producers will receive only 4 cents per litre less.	**Explains** that the impact of the tax is greatest for consumers as their loss of surplus is greater due to inelastic demand.	**Explains, in detail,** that the impact of the tax is greatest for consumers as their loss of surplus is greater due to inelastic demand. Must give a reason for the drink having inelastic demand.	**Explains, in detail,** that the impact of the tax is greatest for consumers as their loss of surplus is greater due to inelastic demand. So, producers are able to pass on most of the cost of the tax by significantly raising the price. Must give a reason for the drink having inelastic demand.

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. Refers to graph.	Most Merit evidence. Refers to graph.	Some Excellence evidence (one part weaker). Fully integrates graph.	Most Excellence evidence. Fully integrates graph.

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Q3	Sample evidence	Achievement	Achievement with Merit	Achievement with Excellence
(a)	(i) CS = areas 1 + 4 (ii) PS = area 5 (iii) DWL = areas 2 + 3	Identifies all three correctly.		
(b)	Consumers will bid up the price of houses, as they don't want to miss out on the opportunity to secure a property. As the price of houses increases, the quantity demanded will decrease from Q_2 to Q_e as houses become less affordable and the quantity supplied will increase from Q_1 to Q_e as houses become more profitable to sell. This process will continue until equilibrium in the housing market is restored at the higher equilibrium price of P_e, where the quantity supplied equals the quantity demanded at Q_e, and the shortage of houses is removed.	**Explains** (THREE of): - Consumers bid up price - QD decreases - QS increases - Equilibrium restored where QD = QS	**Explains, in detail** (ALL): - Consumers bid up price - QD decreases - QS increases - Equilibrium restored where QD = QS	
(c)	Consumer surplus will decrease, as the loss of surplus due to the price of houses increasing to P_e (area 4) will be greater than the gain in surplus due to more houses being purchased at Q_e (area 2). So the difference between the price paid for houses and the price consumers are willing to pay has decreased.	**Explains:** • CS will decrease due to the increase in price.	**Explains, in detail:** • CS will decrease due to the increase in price, even though the quantity purchased increases.	**Explains, in detail:** • CS will decrease due to the increase in price, even though the quantity purchased increases. So, the difference between the price paid and the price house buyers are willing to pay has decreased.
	Producer surplus will increase by the area 4 + 3, as house sellers will be selling more houses (Q_e) at a higher price (P_e), so there are more units from which to generate a surplus, and the difference between the price they are receiving and the price they are willing to supply houses has increased.	• PS will increase due to the increase in price received **OR** the increase in quantity sold.	• PS will increase due to the increase in price received **AND** the increase in quantity sold.	• PS will increase due to the increase in price received **AND** the increase in quantity sold. So, the difference between the price received and the price house sellers are willing to supply at has increased, **OR** there are more units sold from which to generate a surplus.

Q3	Sample evidence	Achievement	Achievement with Merit	Achievement with Excellence
	The housing market will become allocative efficient as the gain in producer surplus will be greater than the loss in consumer surplus, so the deadweight loss (area 2 +3) will be removed and total surpluses (CS plus PS) will be maximised.	• The housing market becomes allocative efficient as the deadweight loss is removed **OR** as total surpluses are maximised.	• The housing market becomes allocative efficient as the deadweight loss is removed. This is due to the loss of CS being less than the gain in PS, so total surpluses (CS plus PS) are maximised.	• The housing market becomes allocative efficient as the deadweight loss is removed. This is due to the loss of CS being less than the gain in PS, so total surpluses (CS plus PS) are maximised.

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. Refers to graph.	Most Merit evidence. Refers to graph.	Some Excellence evidence (one part weaker). Fully integrates graph.	Most Excellence evidence. Fully integrates graph.

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Cut Scores

Not Achieved	Achievement	Achievement with Merit	Achievement with Excellence
0 – 7	8 – 13	14 – 19	20 – 24