Assessment Schedule – 2014

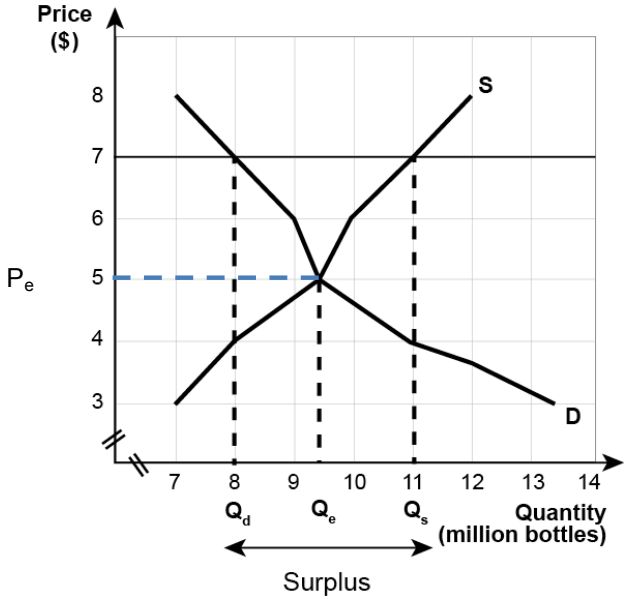
Economics: Demonstrate understanding of how consumer, producer and / or government choices affect society, using market equilibrium (90986)

Assessment Criteria

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding involves: • identifying, describing, or providing an explanation of how producer, consumer, and / or government choices affect market equilibrium • identifying, describing, or providing an explanation of how changes in market equilibrium affect different sectors • clearly illustrating changes using the supply and demand model.	Demonstrate in-depth understanding involves: • providing a detailed explanation, using the supply and demand model, of how producer, consumer and / or government choices affect market equilibrium • providing a detailed explanation, using the supply and demand model, of how changes in market equilibrium affect different sectors.	Demonstrate comprehensive understanding involves: • linking detailed explanations of how producer, consumer, and / or government choices affect market equilibrium with detailed explanations of how those changes affect different sectors • integrating changes in supply and demand into detailed explanations.

Each question should be read as a whole before awarding a grade.

Evidence Statement

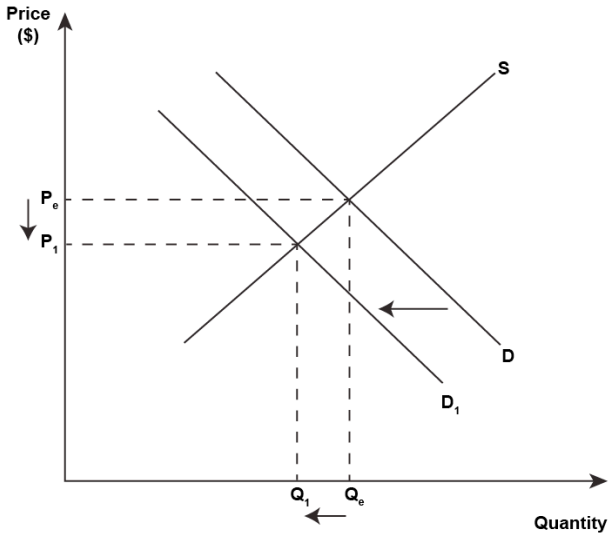
<table>
<tr><th>Question One</th><th>Sample answers / Evidence</th><th>Achievement</th><th>Achievement with Merit</th><th>Achievement with Excellence</th></tr>
<tr>
<td>(a)
and
(b)</td>
<td>
<table>
<tr><th colspan="4">Market supply of 2-litre bottles of milk in New Zealand (annually)</th></tr>
<tr><th>Price ($)</th><th>South Island (million)</th><th>North Island (million)</th><th>Market supply (million)</th></tr>
<tr><td>3.00</td><td>3.5</td><td>3.5</td><td>7</td></tr>
<tr><td>4.00</td><td>3.8</td><td>4.2</td><td>8</td></tr>
<tr><td>5.00</td><td>4.5</td><td>5</td><td>9.5</td></tr>
<tr><td>6.00</td><td>4.9</td><td>5.1</td><td>10</td></tr>
<tr><td>7.00</td><td>5.5</td><td>5.5</td><td>11</td></tr>
<tr><td>8.00</td><td>6.0</td><td>6</td><td>12</td></tr>
</table>
Market of 2-litre bottles of milk in New Zealand (annually)


</td>
<td>Demonstrates understanding by:
• completing table accurately
• plotting points correctly
• identifying equilibrium
• identifying a surplus
• explaining a surplus
• explaining the fall in price.</td>
<td>Detailed explanation, which includes:
• using data to identify a surplus
• explaining the surplus ie $Q_s > Q_d$
• fully explaining why price will fall (ie milk producers will reduce price to get rid of unsold stock) by referring to the surplus
• using the law of demand OR law of supply to fully explain the restoration of equilibrium.
Candidate uses detailed explanations, mostly uses correct data, and in context.</td>
<td>Comprehensive explanation, which includes:
• fully explaining surplus, using correct data
• integrating law of demand (ie P↓Q_d↑) and supply (ie P↓Q_s↓), as well as data into full explanation of the price falling (milk producers will reduce price to get rid of unsold stock), and the equilibrium being restored at a price of $5 and quantity of 9.5 million bottles of milk.
Candidate uses integrated explanations in context, and uses correct data and economic terminology.</td>
</tr>
</table>

(c)	At $7, there is a surplus of 3 million bottles, as the quantity supplied is greater than the quantity demanded, ie the quantity supplied by the milk producers is 11 million bottles (Q_s), while there are only 8 million (Q_d) demanded by consumers. The producers will reduce the price to try to get rid of the surplus or unsold stock. As the price falls, quantity demanded will rise (law of demand) as milk becomes more affordable. As the price falls, quantity supplied will fall (law of supply), as milk will now be less profitable. The price will continue to fall until it reaches $5, where quantity demanded will equal quantity supplied of 9.5 million bottles.			

N1	N2	A3	A4	M5	M6	E7	E8
Very little Achievement evidence	Some Achievement evidence, partial explanation.	Most Achievement evidence.	Nearly all Achievement evidence, which includes at least one explanation.	Some Merit evidence.	Most Merit evidence.	Excellence evidence. One part is weaker.	All points covered.

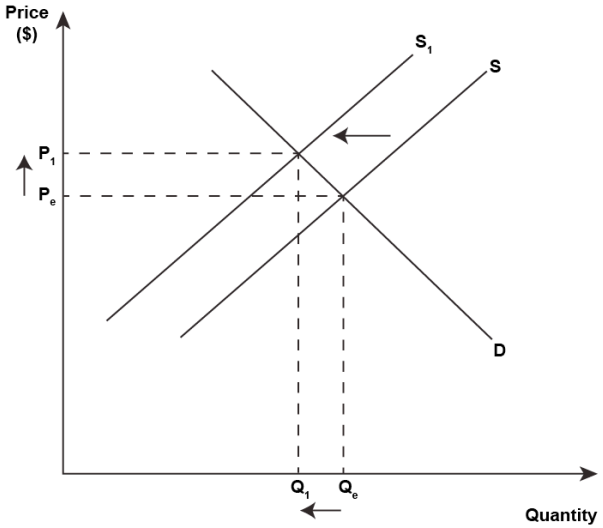
N0 = No response; no relevant evidence.

Question Two	Sample answers / Evidence	Achievement	Achievement with Merit	Achievement with Excellence
(a)	**Market for infant formula**  	Demonstrates understanding by: • explaining market demand • stating that market demand will decrease • shifting demand curve to the left • explaining fall in price • identifying an effect on consumers. • identifying fall in quantity	Detailed explanation, which includes fully explaining: • market demand decreasing, due to the contamination scare • decrease in price due to surplus at the original price, P_e • an effect on consumers. Candidate uses detailed explanations, mostly uses correct data, and in context.	Comprehensive explanation, which includes: • linking reasons for decreased market demand to shift of demand to left • linking fall in price to surplus at P_e and producers cutting prices • fully explaining the fall in price and the change in Q_s and Q_d • fully explaining the flow on effect on consumers. Candidate uses integrated explanations in context, and uses correct data and economic terminology.
(b)	Market demand is the demand of all the consumers in the market, and is the horizontal summation of the individual demand curves for infant milk formula. The concern over potential contamination / warning will decrease consumers' demand for infant milk formula, which will shift the demand curve to the left, to D_1. This means that less formula will be demanded at each and every price. This will cause a surplus of infant milk formula at the existing equilibrium price. As a result, the milk producers will reduce their prices in order to sell the excess formula. With cheaper formula available, the quantity demanded will rise. The result is a decrease in the price of formula from P_e to P_1 and a decrease in the quantity from Q_e to Q_1. <u>Potential effects on consumers</u> The effect of the concern over potential contamination on infant milk formula consumers is that consumers will be less willing to purchase the formula at each and every price. Consumers will have to find a substitute to use instead of the milk			

	formula. If infants do not receive enough milk, calcium-related deficiencies might become prominent in infants. Those consumers who are still willing to purchase the formula will be better off, as they will be paying a lower price per unit than before. Mothers might choose to breastfeed babies for longer, and no longer buy infant milk formula.			

N1	N2	A3	A4	M5	M6	E7	E8
Very little Achievement evidence.	Some Achievement evidence, partial explanation.	Most Achievement evidence.	Nearly all Achievement evidence, which includes at least one explanation.	Some Merit evidence.	Most Merit evidence.	Excellence evidence. One part is weaker.	All points covered.

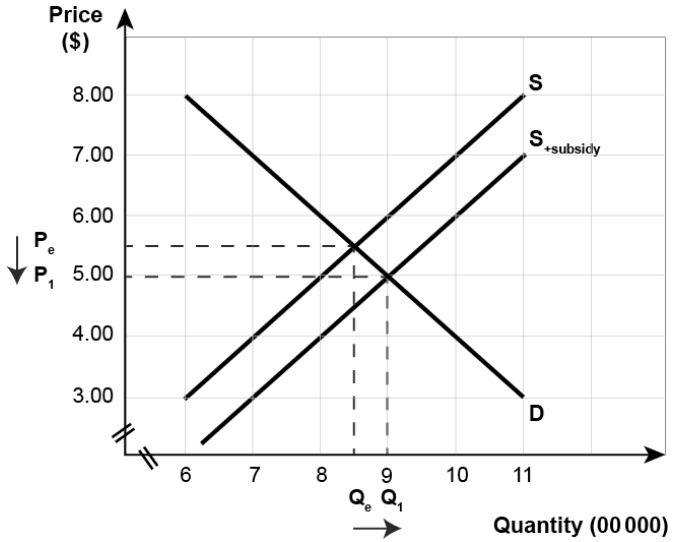
N0 = No response; no relevant evidence.

Question Three	Sample answers / Evidence	Achievement	Achievement with Merit	Achievement with Excellence
(a)	**Market for 2-litre bottles of milk**  	Demonstrates understanding by: • explaining market supply • stating that market supply will decrease • shifting supply curve to the left • identifying that price rises • identifying a decrease in quantity.	Detailed explanation, which includes: • fully explaining market supply decreasing due to less grass / less feed • fully explaining increase in price due to shortage at the original price, P_e • explaining that the change in producer revenue depends on the size of the change in P and Q. Candidate gives detailed explanations, mostly uses correct data, and in context.	Comprehensive explanation, which includes: • linking reasons for decreased market supply to shift of supply curve to left • linking increase in price to shortage at P_e and consumers bidding up the price • fully explaining the increase in price and the change in Q_s and Q_d • linking change in milk producers' revenue to increase in price and decrease in quantity sold, with reference from the graph and to the size of the change. Candidate uses integrated explanations in context, and uses correct data and economic terminology.
(b)	Market supply is the supply of all the producers in the market, and is the horizontal summation of the individual supply curves for 2-litre bottles of milk. A drought will decrease producers' supply of milk, because less grass will grow / less feed is available, and cows will produce less milk OR costs of production could increase (due to bringing in more water. The decreased supply will shift the supply curve to the left to S_1. This means that less milk will be supplied at each and every price. This will cause a shortage of 2-litre bottles of milk at the existing equilibrium price (P_e). As a result, the milk consumers will bid up the prices in order to buy the limited milk. With 2-litre bottles of milk being more expensive, the quantity demanded will fall and the quantity supplied will rise. This results in an increase in the price of milk from P_e to P_1 and a decrease in the quantity from Q_e to Q_1. The effect of a drought on milk producers' revenue is that the revenue could increase, decrease or stay the same. This is because the price of 2-litre bottles of milk has increased, but the quantity has decreased. If the price increases by a greater proportion than the quantity decreases, then the milk producers' revenue will increase, and vice versa.			

N1	N2	A3	A4	M5	M6	E7	E8
Very little Achievement evidence.	Some Achievement evidence, partial explanation.	Most Achievement evidence.	Nearly all Achievement evidence, which includes at least one explanation.	Some Merit evidence.	Most Merit evidence.	Excellence evidence. One part is weaker.	All points covered.

N0 = No response; no relevant evidence.

<table>
<tr><th>Question Four</th><th>Sample answers / Evidence</th><th>Achievement</th><th>Achievement with Merit</th><th>Achievement with Excellence</th></tr>
<tr>
<td>(a)

(b)</td>
<td>
Market for 2-litre bottles of milk (monthly)


<table>
<tr><th></th><th>Before subsidy</th><th>After subsidy</th></tr>
<tr><td>Quantity consumers buy</td><td>850 000 (bottles)</td><td>900 000 (bottles)</td></tr>
<tr><td>Price per bottle consumers pay</td><td>$5.50</td><td>$5.00</td></tr>
<tr><td>Price per bottle producers receive</td><td>$5.50</td><td>$6.00</td></tr>
<tr><td>Consumer spending</td><td>$4 675 000</td><td>$4 500 000</td></tr>
<tr><td>Producer revenue</td><td>$4 675 000</td><td>$5 400 000</td></tr>
</table>
Total cost to the government of the subsidy is $900 000.
</td>
<td>
Demonstrates understanding by:
• shifting the supply curve to the right correctly
• labelling a lower price
• labelling a higher quantity
• identifying quantity that consumers buy before and after
• identifying price that consumers pay before and after
• identifying price that milk producers receive before and after
• identifying consumer spending before and after
• identifying producers' revenue before and after
• identifying cost of subsidy to government.

(Allow for carry-through errors).
</td>
<td>
Detailed explanation, which includes:
• shifting S to the right correctly
AND
• correctly completing table in (b)
</td>
<td>
Comprehensive explanation, which includes:
• explaining the change in price to consumers, and the effect on consumer spending
• explaining the change in price to producers, and the effect on producers' revenue
• explaining the immediate effect on the government
• explaining the long-term benefit to government.

Candidate uses integrated explanations in context, and uses correct data and economic terminology.
</td>
</tr>
</table>

(c)	The price paid by consumers will fall from \$5.50 to \$5.00. The price received by milk producers will increase from \$5.50 to \$6, despite the price paid by consumers having lowered. This is because the subsidy provided by the government will mean that producers will get \$0.50 more per bottle sold, making milk more profitable, so the producers will produce more at each and every price, hence lowering the price to consumers. Consumer spending will decrease from \$4 675 000 to \$4 500 000 (by \$175 000), and consumers will be better off, because they have to pay less per bottle to buy more milk. Producers' revenue increases from \$4 675 000 to \$5 400 000 as a result of the increase in price to producers and increased quantity sold. The immediate effect on the government is an increase in spending by the amount of the cost of subsidy, which is \$900 000 a month. This may mean decreased spending in other areas. In the longer term, however, assuming that the outcome of increased consumption of milk is a society with better health, the government may be able to save on health spending, and have more to spend on other areas.			

N1	N2	A3	A4	M5	M6	E7	E8
Very little Achievement evidence.	Some Achievement evidence.	Most Achievement evidence.	Nearly all Achievement evidence.	Some Merit evidence.	Most Merit evidence.	Excellence evidence. One part is weaker.	All points covered.

N0 = No response; no relevant evidence.

Cut Scores

	Not Achieved	Achievement	Achievement with Merit	Achievement with Excellence
Score range	0 – 9	10 – 17	18 – 24	25 – 32