

Question 2: Short**5 points**

A Calculate the total economic surplus as \$270 and show your work. **1 point**

Point 1
$$\text{Total Economic Surplus} = \frac{1}{2} \times (\$10 - \$1) \times (60 - 0) = \frac{1}{2} \times \$9 \times 60 = \$270$$

OR

$$\begin{aligned} \text{Total Economic Surplus} &= \text{Consumer Surplus} + \text{Producer Surplus} \\ &= \frac{1}{2} \times (\$10 - \$4) \times (60 - 0) + \frac{1}{2} \times (\$4 - \$1) \times (60 - 0) \\ &= \$180 + \$90 = \$270 \end{aligned}$$

B State that there will be neither a surplus nor a shortage and explain that a price floor set below the equilibrium price is not binding and, therefore, will have no effect on the market price and quantity. **1 point**

Point 2

C (i) State that Rushland will export rice and explain with **ONE** of the following: **1 point**

- Point 3
- At the world price of \$5, the domestic quantity supplied is 80 bushels of rice, which is greater than the domestic quantity demanded, which is 50 bushels of rice.
 - At the world price of \$5, Rushland has a domestic surplus of 30 bushels of rice that can be exported.

(ii) Calculate the domestic consumer surplus in Rushland as \$125 and show your work. **1 point**

Point 4
$$\text{Domestic Consumer Surplus} = \frac{1}{2} \times (\$10 - \$5) \times (50 - 0) = \frac{1}{2} \times \$5 \times 50 = \$125$$

(iii) Calculate the total revenue Rushland's farmers will earn as \$400 and show your work. **1 point**

Point 5
$$\text{Total Revenue} = \text{World Price} \times \text{Quantity Sold} = \$5 \times 80 = \$400$$

Question 2: Short**5 points**

- (a) Calculate the consumer surplus in New Zealand before trade as \$4,500 and show your work. **1 point**

$$\text{Consumer Surplus} = \frac{1}{2} \times 300 \times (\$70 - \$40) = \frac{1}{2} \times 300 \times \$30 = \frac{\$9,000}{2} = \$4,500$$

- (b) (i) State that New Zealand will export 400 units of wool. **1 point**

- (ii) State that consumer surplus in New Zealand will decrease and explain with **ONE** of the following: **1 point**

- The domestic price will increase to the world price, which decreases the domestic quantity demanded of wool.
- The consumer surplus decreased from \$4,500 before trade to \$500 after trade.

- (iii) State that total economic surplus in New Zealand will increase by \$4,000 and explain that producer surplus will increase by \$8,000 while consumer surplus will decrease by \$4,000, resulting in an increase in total economic surplus. **1 point**

Total for part (b) 3 points

- (c) State that New Zealand's exports will decrease. **1 point**

Total for question 2 5 points