**TUTORIAL 3:**

**MARKET EQUILIBRIUM**

**Name:**

**Marks**:

**ID:**

**Section:**

Question 1

Table below shows the market for a product in an economy.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Price/Unit**  **(RM)** | **Quantity supplied, Qs**  **(units)** | | | **Quantity demanded, Qd**  **(units)** | | |
| **P** | **Q** | **∑PQ** | **J** | **K** | **∑JK** |
| 30 | 150 | 50 |  | 0 | 0 |  |
| 25 | 95 | 65 |  | 35 | 25 |  |
| 20 | 75 | 45 |  | 55 | 65 |  |
| 15 | 50 | 30 |  | 70 | 110 |  |
| 10 | 25 | 15 |  | 110 | 130 |  |
| 5 | 0 | 0 |  | 150 | 150 |  |

1. Find the market demand and the market supply and fill in the table.
2. Draw a graph to show the market equilibrium. Label the initial market demand and supply curve.
3. What is the equilibrium price and quantity for the market?
4. If the selling price is RM25, is there any surplus or shortage? By how many units?
5. Find the consumer surplus and producer surplus.
6. Government decided to impose RM5 tax to supplier for each unit of the product. Show the movement of the supply curve after the implementation of tax. Label the new supply curve.
7. What is the new equilibrium price and quantity?
8. Is there any surplus or shortage if the producers keep selling at the old equilibrium price? By how many units?
9. Calculate the consumer and producer surplus after tax.

Question 2

The followings are the equation for demand and supply in a market.

Qd = 100 – 2P

Qs = -20 + P

1. Given the demand and supply equations above, solve for the equilibrium price and quantity.
2. Graph the demand and supply curve. Label the equilibrium price and quantity.
3. Calculate the consumer and producer surplus.