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KOLEJ KOMUNITI MALAYSIA

MICROECONOMICS CONCEPTS

Driving Growth and Success in the Digital Age

NURUL ADYANI BINTI CHE DAUD
HANANI BINTI ABDUL GHANI

Microeconomics Concepts

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PREFACE

Microeconomics Concepts is written for students pursuing their Diploma courses, based on sub topic in the syllabus prescribed by the Ministry of Education for Polytechnic students at the Diploma level.

The concept in this e-book are explained skills and tips in a simple, clear with a few examples, tables and graph. Every chapter also ended with the exercise for enhance student's skills. It is easy to understand by the student.

We are welcome for constructive comments and suggestion from lecturers and students for future improvements. We hope that the e-book is very useful to serve its purpose in helping the students to gain better understanding about Microeconomics concepts.

ACKNOWLEDGEMENT

Alhamdulillah, we have completed our e-book, Microeconomics Concepts. Thank you to our family and friends for being the support team to complete this e-book. We also would like to thank you to our Head of Commerce Department, Mr. Abdul Aziz bin Ishak and Head of Business Study Programme, Madam Anna Zareena bin Azaman for giving us this opportunity.

Finally, thank you also to e-book team Politeknik Tuanku Sultanah Bahiyah especially Madam Fatim Fauziani Bt Hussin. Very difficult in the beginning, but we succeeded in the end. Thanks again to everybody that give encouragement, supported, involved and contributed either direct or indirectly in the production of this e-book.

LIST OF CONTENT

THEORY OF DEMAND

Definition

Demand is the ability and willingness to buy specific quantities of goods in a given period of time at a particular price, ceteris paribus.

Law of Demand

The law of demand states that the higher the price of a goods, the lower the quantity demanded of that goods, or the lower the price of a goods, the higher the quantity demanded of that goods, assuming all factors are equal, ceteris paribus.

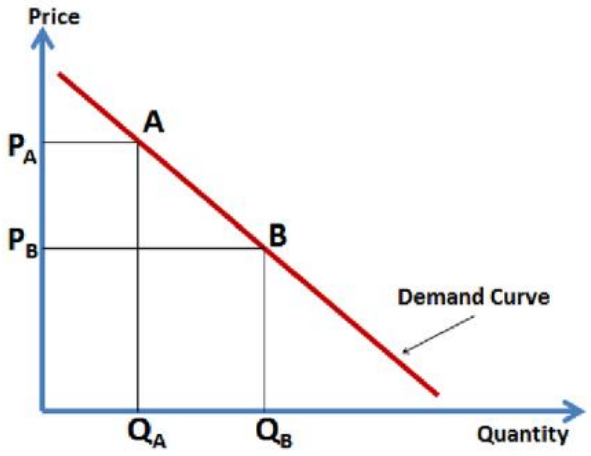
Price (P) ↑ Quantity Demanded (Qd) ↓

Price (P) ↓ Quantity Demanded (Qd) ↑

The price and quantity demanded has a negative relationship.

Demand Curve

The price of goods and its quantity demanded have a negative relationship. Thus, the demand curve slope downward from left to the right.



Demand curve is downward slope from left to the right. The x-axis is label as quantity demanded and y-axis is price.

Exercise 1

Using graph paper, plot the demand curve based on the given information below:

Price (RM)	Quantity Demanded (Units)
1	100
2	80
3	60
4	40
5	20

The Demand Function

Demand function is the relationship between the quantity demanded and price in a mathematical method. The general demand function:

$$Qd = a - bP$$

Qd = Quantity demanded (units)

a = Quantity demanded when price equal to zero (intersect the x-axis)

- = negative symbol indicates negative relationship between price and quantity demanded

b = The gradient of demand curve

P =The price of goods (RM)

There are **TWO** methods to calculate the demand function:

1. Using Formula

$$P - P1 = \frac{(P2 - P1)}{(Q2 - Q1)} X (Q - Q1)$$

Example:

Price (RM)	Quantity Demanded (Units)
1	50
2	25

$$P - P1 = \frac{(P2 - P1)}{(Q2 - Q1)} \times (Q - Q1)$$

$$P - 1 = \frac{(2 - 1)}{(25 - 50)} \times (Q - 50)$$

$$P - 1 = \frac{1}{-25} \times (Q - 50)$$

$$25 - 25P = Q - 50$$

$$Q = 75 - 25P$$

2. Using simultaneous equation

Example:

$50 = a - b$.....(1)

$25 = a - 2b$..... (2)

(1) - (2),

$b = 25$

Substitute b = 25 into (1) or (2);

$a - b = 50$

$a - 25 = 50$

$a = 75$

Therefore; $Q = 75 - 25P$

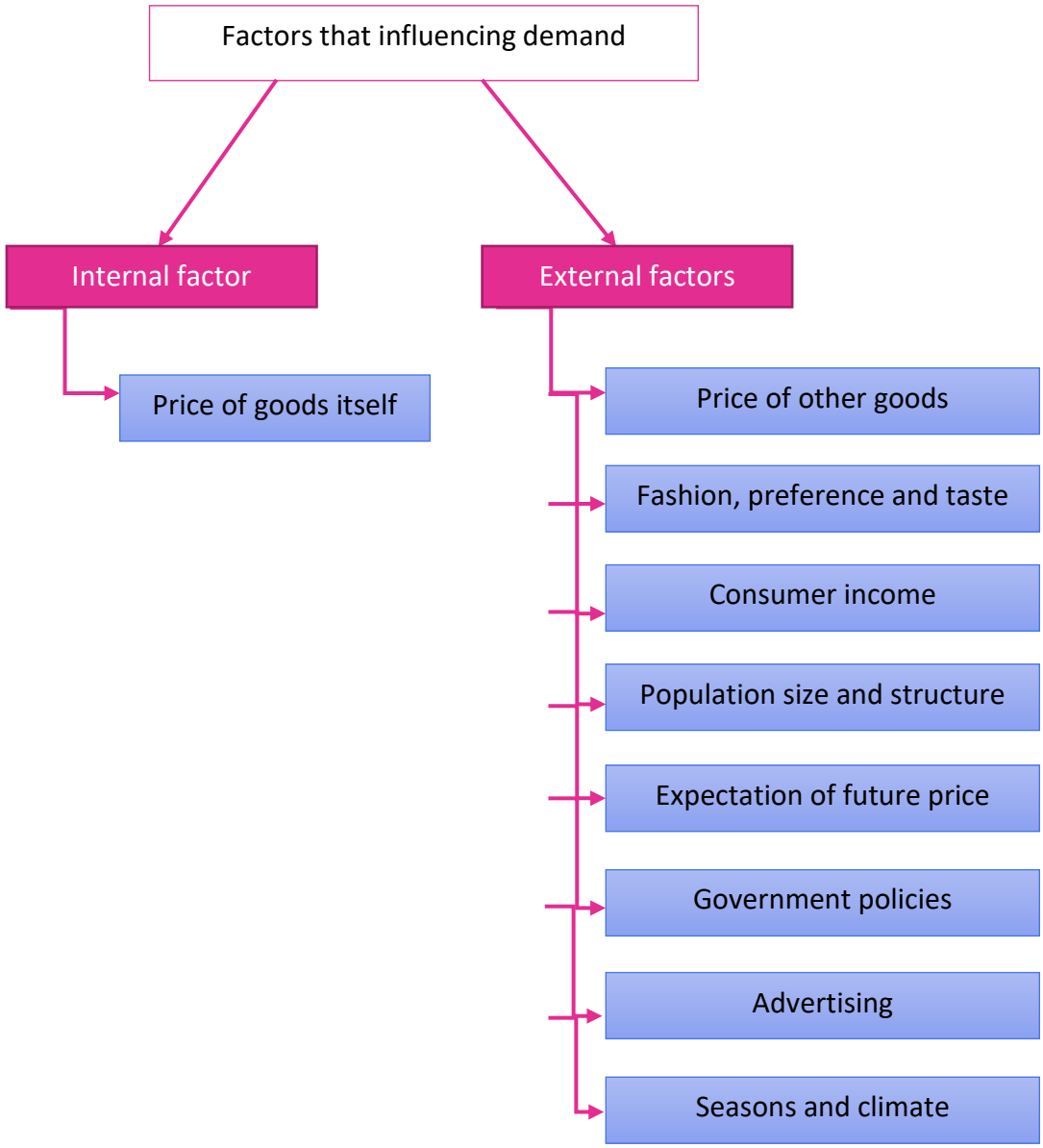
Exercise 2

Calculate the demand function when the price increase from RM1 to RM2 by using:

a) Formula

b) Simultaneous equation

Price (RM)	Quantity Demanded (Units)
1	100
2	80



Factors that influencing demand

a. Internal factor

Price of goods itself

According to the law of demand, the higher the price of a goods, the lower the quantity demanded of that goods or vice versa. So that, the changes in the price of a goods will affect the quantity demand of the goods.

When the price of goods increases, the quantity demanded for the goods will decrease. While, when the price of goods falls, the quantity demanded for the goods will increase.

Negative relationship:

Pa ↑ Qda ↓

Pa ↓ Qda ↑

b. External factor

Price of other goods

A change in the price of one goods will affect the demand for other goods.

(a) <u>Substitute Goods</u>

Goods that can be replace or substitute the function of other goods.

An increase in the price of a goods can cause an increase in the demand for its substitute. While, a decrease in the price of a goods can cause a decrease in the demand for its substitute.

Positive relationship:

Pa ↑ Qa↓ Qb ↑

Pa ↓ Qa↑ Qb ↓

(b) Complementary Goods

Goods that are used together with other goods to complete the function of an object are complementary goods.

An increase in the price of a goods can cause a decrease in the demand for its complementary goods. While, a decrease in the price of a goods can cause an increase in the demand for its complementary goods.

Negative relationship:

Pa ↑ Qa↓ Qb ↓

Pa ↓ Qa↑ Qb ↑

(c) Unrelated Goods

Goods that are not influence and have no relationship with the consumption of other goods.

An increase or a decrease in the price of a goods does not affect the demand for its unrelated goods.

Zero relationship:

Pa ↑ Qa↓ Qb unchanged

Pa ↓ Qa↑ Qb unchanged

Fashion, preference and taste

Taste is preference of a household for a particular goods. Taste changes over time and is influenced by latest trends in fashions, health awareness, advertising and sales promotions.

A taste that raises the consumer willingness or preference to use particular goods will result in increase in the demand for that goods. While, Demand for particular goods will decrease if the consumer feels the consumption of the goods become less desirable.

Positive relationship:

Tastes and fashion ↑ Qd ↑

Tastes and fashion ↓ Qd ↓

Consumer income

The income of a household will determine consumer's purchasing power and their spending pattern. Generally, when consumer's purchasing power increase, the demand for goods will increase correspondingly.

The effect of income on the demand of goods is differ according to the types of goods.

(a) Normal Goods

A goods which the demand rises as income rises, or a goods which the demand falls as income falls.

Positive relationship:

Income ↑ Qd ↑

Income ↓ Qd ↓

(b) Inferior Goods

A goods which the demand falls when income rises, or a goods which the demand rises as income falls.

Negative relationship:

Income ↑ Qd ↓

Income ↓ Qd ↑

(c) Essential Goods

Essential goods and services are things that we need for survival. These goods include food, clothing, and shelter. Utilities such as heating, lighting, and water are example of essential services.

Zero relationship:

Income ↑ Qd unchanged

Income ↓ Qd unchanged

Population size and structure

The demand for a goods in a particular market area is related to the numbers of buyers in the area. The number of buyers may increase or decrease depends on the birth rate, increased immigrant, people migration, death rate, war and so on.

The more buyers, there is a higher demand. The fewer buyers, there is a lower demand.

Positive relationship:

Number of buyers ↑ Qd↑

Number of buyers ↓ Qd ↓

Expectation of future price

Buyers who expect the price of goods to be higher in the future may buy the goods now (current or present demand for the goods).

Buyers who expect the price of goods to be lower in the future may hold their money from buy the goods now (current or present demand for the goods).

Positive relationship:

Expected Future Price ↑ Current Qd↑

Expected Future Price ↓ Current Qd ↓

Government Policies

Government can influence the demand through the taxation, subsidies and law enforcement.

When the government increases the tax rates on particular goods, there will be reduce in demand for the goods due to the increased prices. However, if the government reduces the

tax rates on particular goods, there will be increase in demand for the goods due to the decreased prices.

Negative relationship:

Taxes ↑ Qd↓

Taxes ↓ Qd ↑

When the government subsidizes the production of particular goods, the demand for the goods will increase. The cost of production can be reduced and the price of the goods will decrease due to the subsidy.

Positive relationship:

Subsidies ↑ Qd↑

Subsidies ↓ Qd ↓

The law enforcement will affect the demand for a certain goods. For example, when the government enforces laws compelling the installation of third brake lights on vehicles, the demand curve for third brake lights will increase.

Advertising

A variety of advertisements in electronic and print media can attract the customers to purchase a certain goods. Advertising activities will create the consumer awareness about the existence of the goods in the market.

Positive relationship:

Advertising ↑ Qd↑

Advertising ↓ Qd ↓

Seasons and climate

Seasons can influence the demand for particular goods, such as monsoon season, festivals season and school seasons.

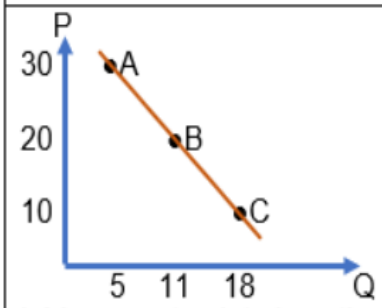
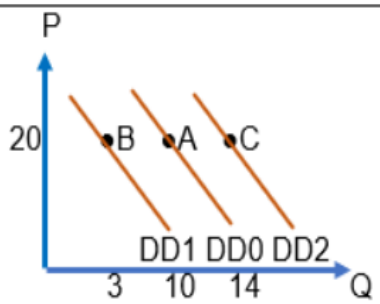
During festive seasons, the demanded for related product is high.

Example:

Baju Kurung highly demanded during Hari Raya Festive

Umbrella highly demanded during rainy season.

Differences between change in quantity demanded and change in demand

Change in Quantity Demanded	Changed in demand
 i. Movement point along the demand curve ii. Factor: Price of goods itself iii. Upward movement is contraction in quantity demanded and downward movement is expansion in quantity demanded. iv. Both price and quantity are changed.	 i. Shift in demand curve (to the left or right) ii. Factors: Price of other goods and other factors iii. Shift to right is increased in demand and shift to left is decreased in demand. iv. Price is constant and quantity of demand changed.

THEORY OF SUPPLY

Definition

Supply is the ability and willingness to sell or produce a particular product and service in a given period of time at a particular price.

Law of Supply

The law of demand states that the higher the price of a product, the higher the quantity supplied of that product, or the lower the price of a product, the lower the quantity supplied of that product, ceteris paribus.

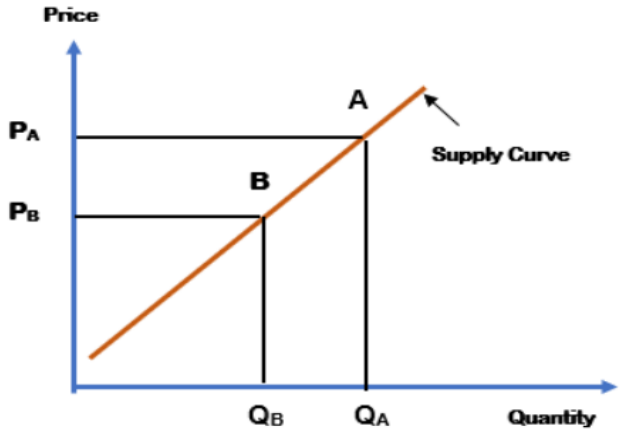
Price (P) ↑ Quantity Supplied (Qs) ↑

Price (P) ↓ Quantity Supplied (Qs) ↓

The price and quantity supplied has a positive relationship**.**

Supply Curve

The price of goods and its quantity supplied have a positive relationship. Thus, the supply curve slope upward from left to the right.



Supply curve is upward slope from left to the right. The x-axis is label as quantity supplied and y-axis is price.

Exercise 3

Plot the demand curve based on the given information below:

Price (RM)	Quantity Demanded (Units)
1	15
2	30
3	45
4	60
5	75

The Supply Function

Supply function is the relationship between the quantity supplied and price in a mathematical method. The general supply function,

$$Qs = c + dP$$

Qs = Quantity supplied (units)

c = Quantity supplied when price equal to zero (intersect the x-axis)

+ = positive symbol indicates positive relationship between price and quantity supplied

d = The gradient of supply curve

P =The price of goods (RM)

There are **TWO** methods to calculate the demand function:

1. Using Formula

$$P - P1 = \frac{(P2 - P1)}{(Q2 - Q1)} X (Q - Q1)$$

Example:

Price (RM)	Quantity Demanded (Units)
1	20
2	40

$$P - P1 = \frac{(P2 - P1)}{(Q2 - Q1)} \times (Q - Q1)$$

$$P - 1 = \frac{(2 - 1)}{(40 - 20)} \times (Q - 20)$$

$$P - 1 = \frac{1}{20} \times (Q - 20)$$

$$20P - 20 = Q - 20$$

$$Q = 20P$$

2. Using simultaneous equation

Example:

$$20 = c + d \text{.....(1)}$$

$$40 = c + 2d \text{..... (2)}$$

(1) - (2),

$$d = 20$$

Substitute d = 20 into (1) or (2);

$$c + d = 20$$

$$c + 20 = 20$$

$$c = 0$$

Therefore; $Q = 20P$

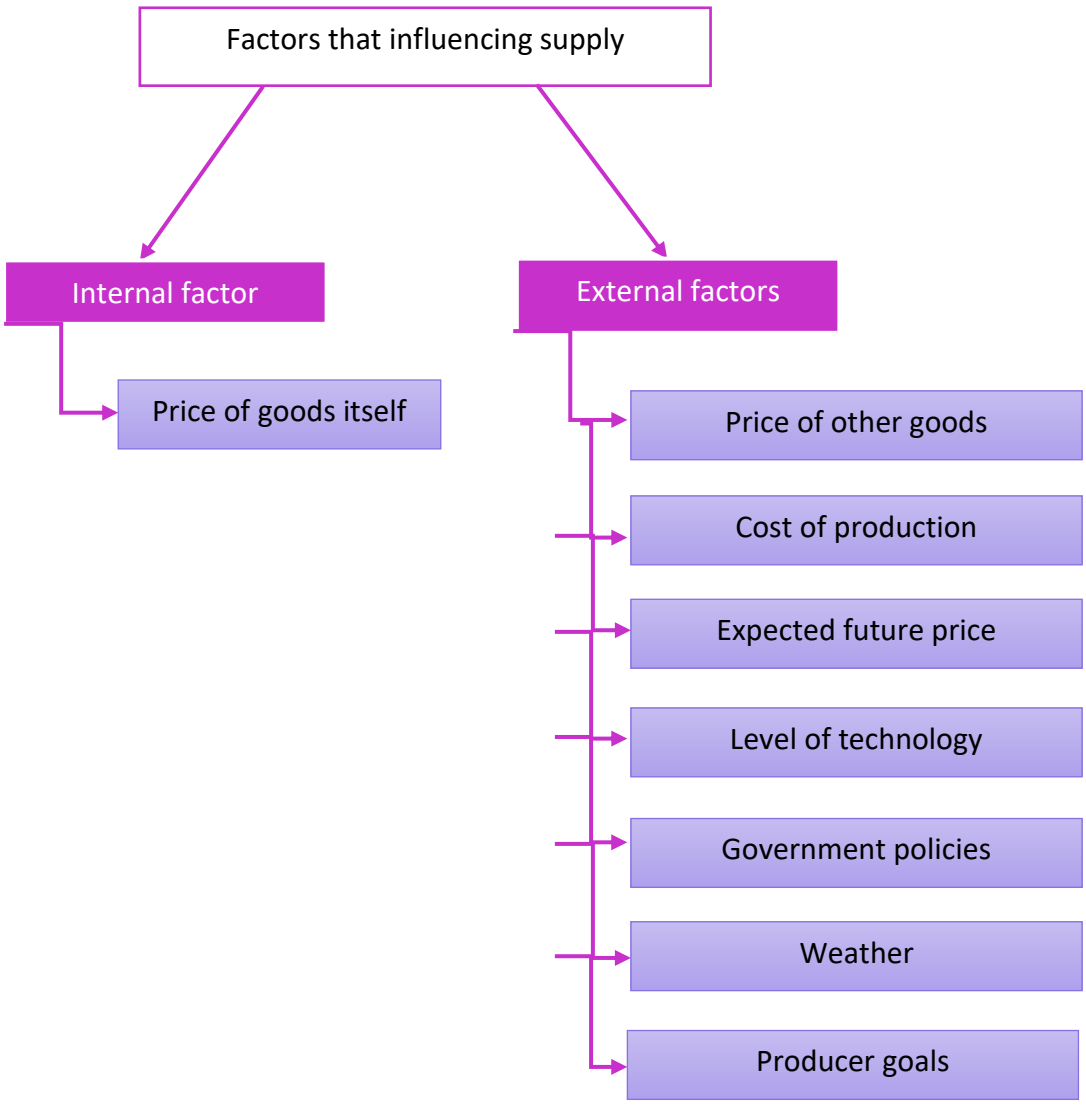
Exercise 4

Calculate the supply function when price increase from RM2 to RM4 by using:

a) Formula

b) Simultaneous equation

Price (RM)	Quantity Demanded (Units)
2	60
4	120



Factors that influencing supply

a. Internal factor

Price of goods itself

According to the law of supply, the higher the price of a goods, the higher the quantity supplied of that goods or vice versa. So that, the changes in the price of a goods will affect the quantity supply of the goods.

Positive relationship:

Pa ↑ Qsa ↑

Pa ↓ Qsa ↓

b. External factors

Price of other goods

A change in the price of one goods will affect the supply for other goods.

(a) <u>Substitute Goods</u>

Goods that can be replace or substitute the function of other goods.

An increase in the price of a goods can cause a decrease in the supply for its substitute. While, a decrease in the price of a goods can cause an increase in the supply for its substitute.

Positive relationship:

Pa ↑ Qa ↑ Qb ↓

Pa ↓ Qa ↓ Qb ↑

(b) Complementary Goods

Goods that are used together with other goods to complete the function of an object are complementary goods.

An increase in the price of a goods can cause an increase in the supply for its complementary goods. While, a decrease in the price of a goods can cause a decrease in the supply for its complementary goods.

Negative relationship:

Pa ↑ Qa↑ Qb ↑

Pa ↓ Qa↓ Qb ↓

(c) Unrelated Goods

Goods that are not influence and have no relationship with the consumption of other goods.

An increase or a decrease in the price of a goods does not affect the demand for its unrelated goods.

Zero relationship:

Pa ↑ Qa↑ Qb unchanged

Pa ↓ Qa↓ Qb unchanged

Cost of production

Production cost are cost involved in the production, such as cost of raw materials, wages and rent.

An increase in price of resources reduces the profitability of producing goods or services.

Negative relationship:

Cost of production ↑ Qs ↓

Cost of production ↓ Qs ↑

Expected future price

If the price of goods is expected to be higher in the future, producers may hold back some of the product today. Then the producers will have more to sell at the higher future price.

If the price of goods is expected to be lower in the future, producers may produce more goods today. The current supply will increase as they try to sell more today before the price declines.

Negative relationship:

Expected Future Price ↑ Current Qs↓

Expected Future Price ↓ Current Qs↑

Level of technology

Developments of technology include the development in machinery, high quality materials, management and production efficiency.

An advance in technology refers to the ability to produce more output with affixed amount of resources, thus reducing per-unit production cost.

Positive relationship:

Technology ↑ Qs↑

Technology ↓ Qs↓

Numbers of sellers/ producers

The numbers of sellers/ producers in an industry will influence supply.

The more firms in the industry, the more supply will be offered. The more firms leave the industry, the supply will fall.

Positive relationship:

Seller ↑ Qs↑

Seller ↓ Qs↓

Government policies

Government policies on taxation and subsidies will affect supply.

If the government imposes taxes on goods, the cost to produce the goods will increase. Therefore, producers will decrease production of the goods.

Negative relationship:

Taxes ↑ Qs↓

Taxes ↓ Qs↑

If government provides subsidies to a producer to produce goods, the cost to produce the goods will decrease. Therefore, the producer will increase production of the goods.

Positive relationship:

Subsidies ↑ Qs↑

Subsidies ↓ Qs↓

Weather

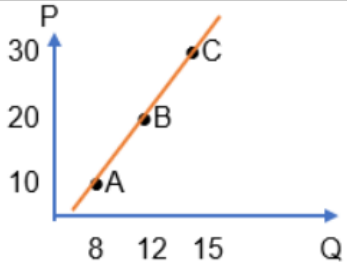
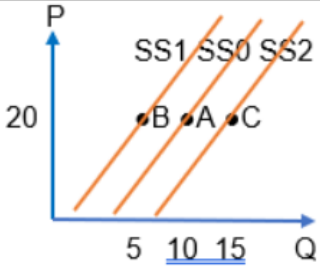
Weather conditions such as storms, winds and floods will affect the supply of goods from certain industries such as agriculture and fishery.

Producer goals

The producer's goal will influence the quantity of supply. A producer may aim to maximize profits or maximize production.

If the goal of producer is to maximize production, he/she will supply goods in higher quantities compared to a producer who wishes to maximize profits.

Differences between change in quantity supplied and change in supply

Change in Quantity Supplied	Changed in Supply
	
i. Movement point along the supply curve ii. Factor: Price of goods itself iii. Upward movement is Expansion in quantity supplied and downward movement is contraction in quantity supplied. iv. Both price and quantity are changed.	i. Shift in supply curve ii. Factors: Price of other goods and other factors iii. Shift to right is increase in supply and shift to left is decreased in supply. iv. Price is constant and quantity of demand changed.

Exercise 5

Identify the following factors that will cause a change in quantity demand/supply, demand or supply.

	Factors	*Changes in*		
		Qd/Qs	**DD**	**SS**
1.	Fashion, Taste and Preferences			
2.	Consumer's income			
3.	Production costs			
4.	Producer goals			
5.	Advertising			
6.	Level of technology			
7.	Population size and structure			
8.	Number of producers			

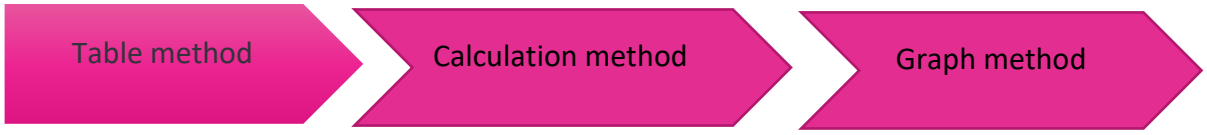
MARKET EQUILIBRIUM

Definition

Market equilibrium is a situation when quantity demanded and quantity supplied are equal and there is no tendency for price or quantity to change. Formula for market equilibrium is:

$$Qd = Qs$$

There are **THREE** methods to determine market equilibrium:



i) Table method

Price(RM)	Quantity Demanded (units)	Quantity Supplied (units)
1	100	20
2	80	40
3	60	60
4	40	80
5	20	100

Therefore, price equilibrium is RM3 and quantity equilibrium is 60 units.

ii) Calculation method

Qd = 100 + 70P

Qs = 200 + 50P

Qd = Qs

100 + 70P = 200 + 50P

70P - 50P = 200 - 100

20P = 100

P = 5

Substitutes P = 5 into Qd or Qs,

Qd = 100 + 70P

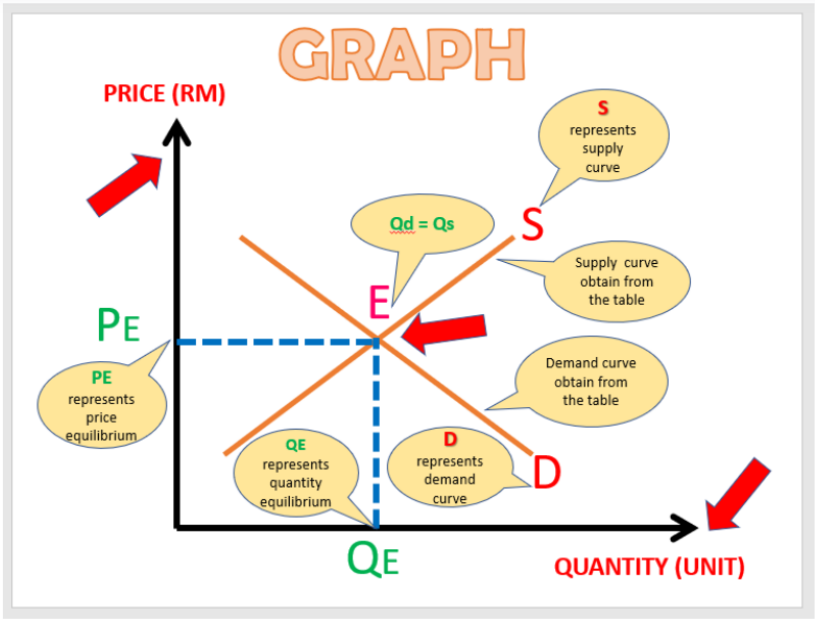
= 100 + 70(5)

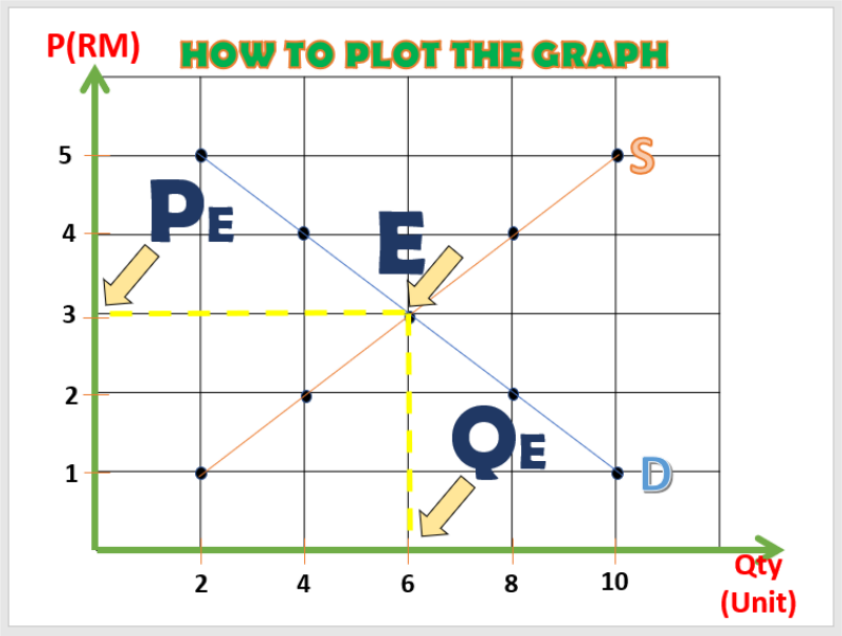
= 100 + 350

= 450

Therefore, equilibrium price is RM5 and equilibrium quantity is 450 units.

iii) Graph method





Exercise 6

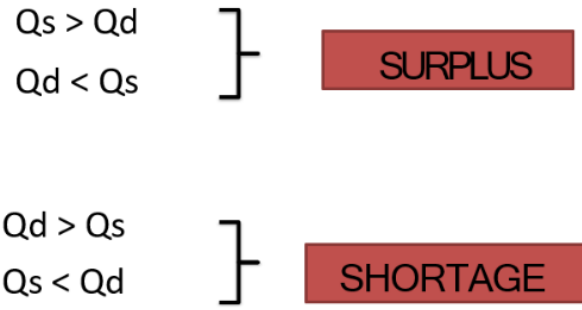
Price (RM)	Quantity Demanded (units)	Quantity Supplied (units)
1	25	5
2	20	10
3	15	15
4	10	20
5	5	25

(i) From the table above, find equilibrium price and quantity.

(ii) Calculate the equilibrium price and equilibrium quantity.

(iii) Using a graph paper, draw the demand and supply curve for the equilibrium and show equilibrium price and quantity.

Market Condition



Excess in supply OR Surplus

Qs > Qd OR Qd < Qs

- There is tendency for price and quantity to change where the equilibrium can be achieved.
- When there is a surplus, there is a tendency for price to fall because the sellers will compete among themselves for sales by cutting down the prices.
- As the prices fall, the quantity demanded will increased (law of demand) and the quantity supplied will decreased (law of supply) until it reaches the equilibrium.

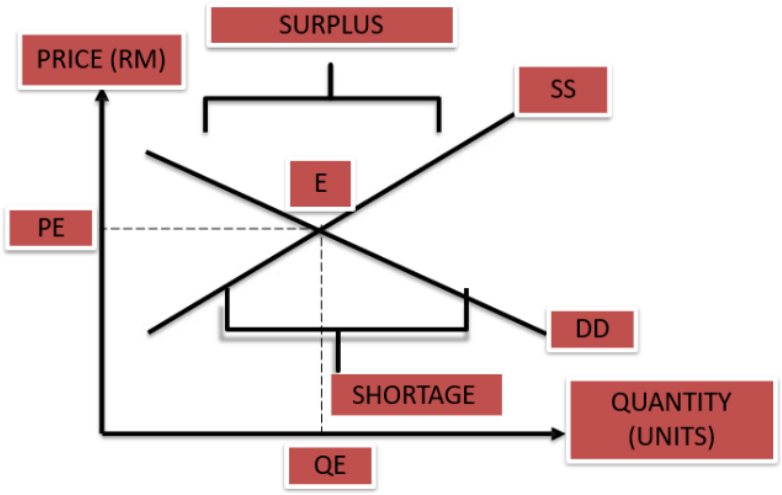
Excess in demand OR Shortage

Qd > Qs OR Qs < Qd

- There is tendency for price and quantity to change where the equilibrium can be achieved.

- When there is a shortage, there is a tendency for price to rise because the sellers will see an opportunity to increase their prices and the buyers will compete among themselves for a limited quantity.

- As the prices rise, the quantity demanded will decreased (law of demand) and the quantity supplied will increased (law of supply) until it reaches the equilibrium.



This graph shows about surplus and shortage where surplus is above the equilibrium curve and shortage is below the equilibrium curve.

Exercise 7

Price (RM)	Quantity Demanded (units)	Quantity Supplied (units)
20	350	30
40	300	60
60	250	90
80	200	120
100	150	150
120	100	180
140	50	210

Based on the table above:

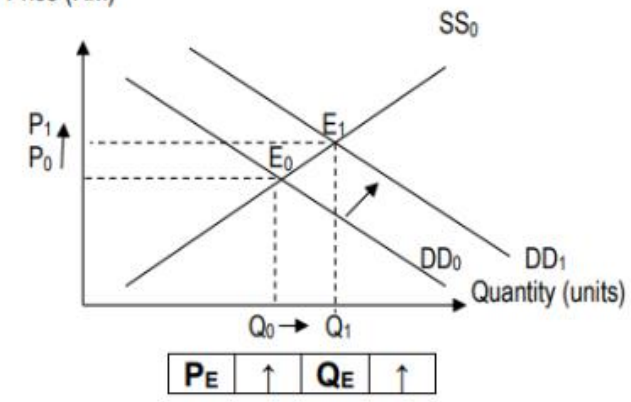
(i) Draw the market equilibrium curve using graph paper.

(ii) Show the surplus and shortage in the same graph paper as question (i).

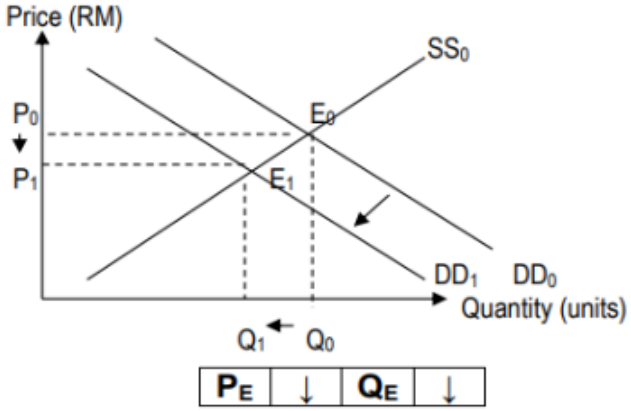
(iii) Find the value for surplus and shortage from graph paper.

Interpret the effect of market equilibrium changes to the price and quantity equilibrium

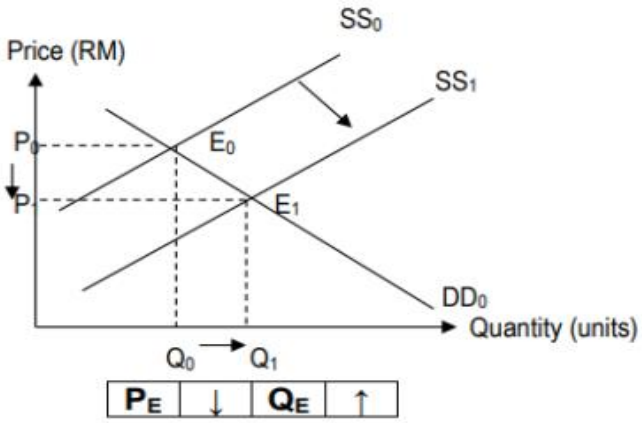
Increased in demand



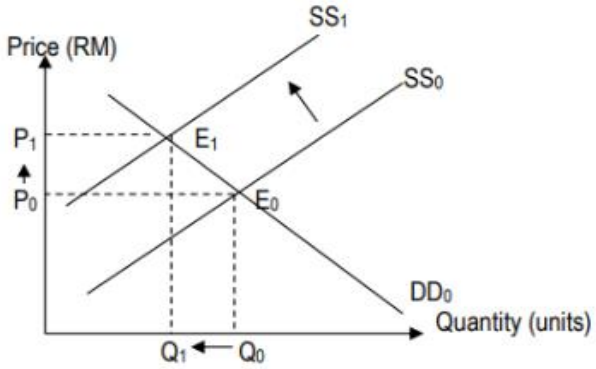
Decreased in demand



Increased in supply

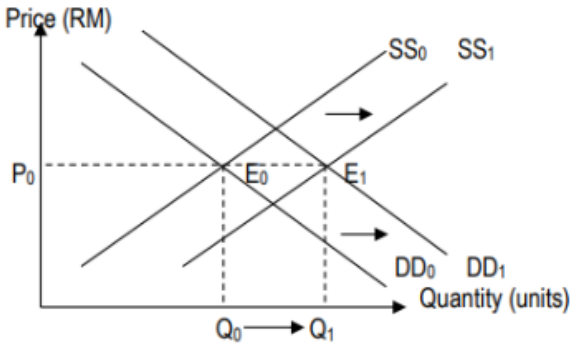


Decreased in supply



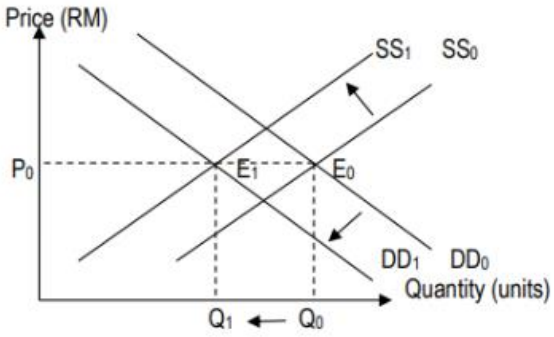
P_E	↑	Q_E	↓

Increased in demand, Increased in supply (equal magnitude)



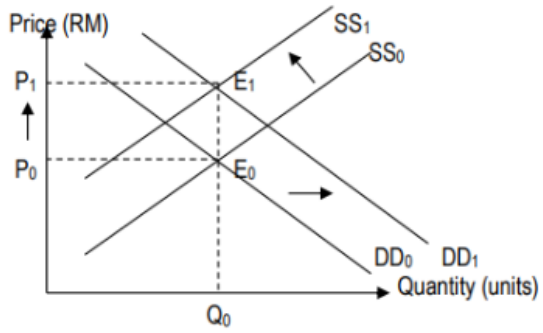
P_E	unchanged	Q_E	↑

Decreased in demand, Decreased in supply (equal magnitude)



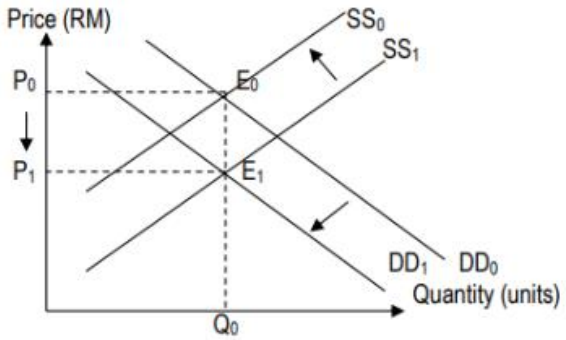
P_E	unchanged	Q_E	↓

Increased in demand, Decreased in supply (equal magnitude)



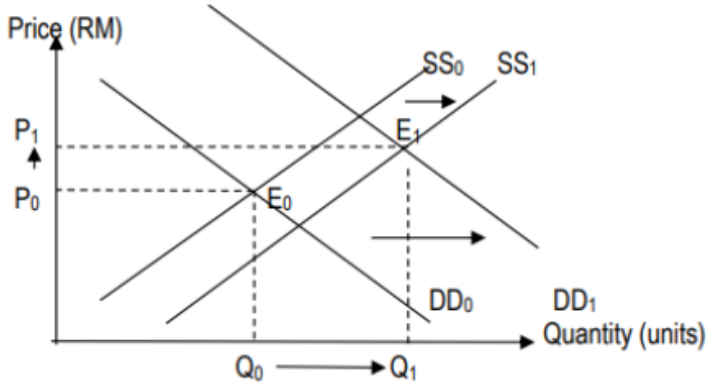
P_E	↑	Q_E	unchanged

Decreased in demand, Increased in supply (equal magnitude)



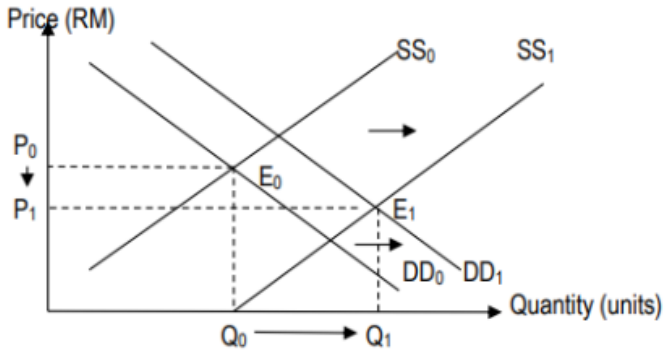
P_E	↓	Q_E	unchanged

Increased in demand > Increased in supply



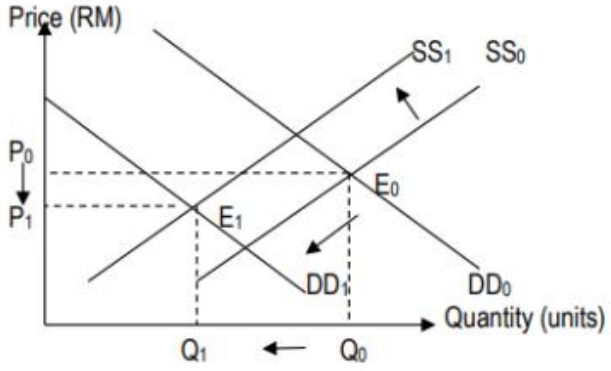
P_E	↑	<	Q_E	↑

Increased in demand < Increased in supply



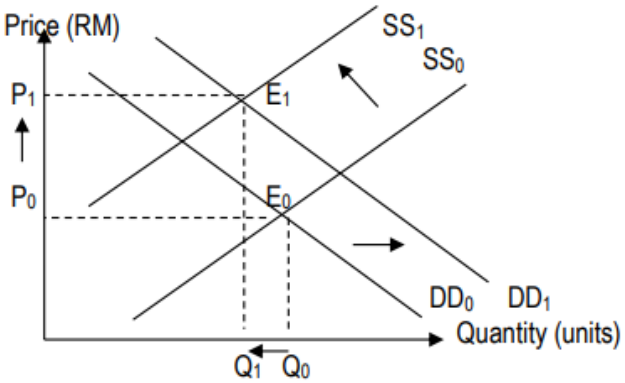
P_E	↓	<	Q_E	↑

Decreased in demand > Decreased in supply



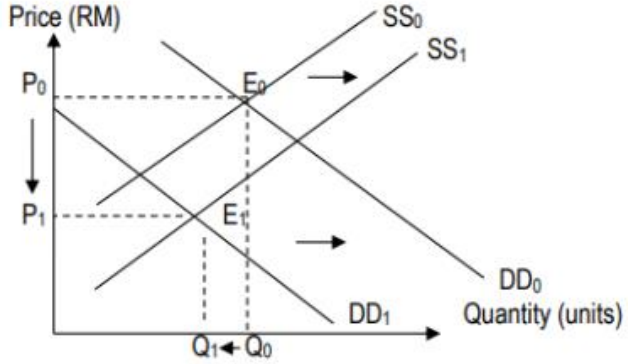
P_E	↓	<	Q_E	↓

Increased in demand < Decreased in supply



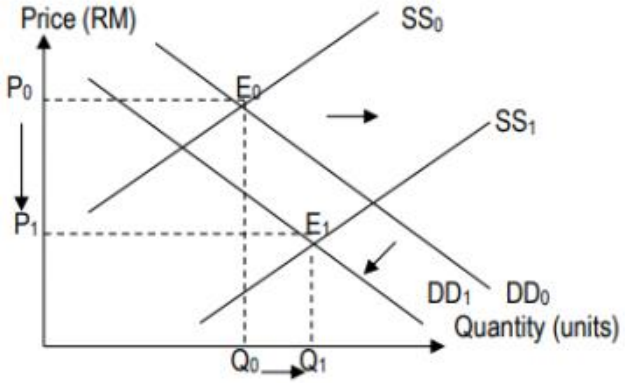
P_E	↑	>	Q_E	↓

Decreased in demand > Increased in supply



P_E	↓	>	Q_E	↓

Decreased in demand < Increased in supply



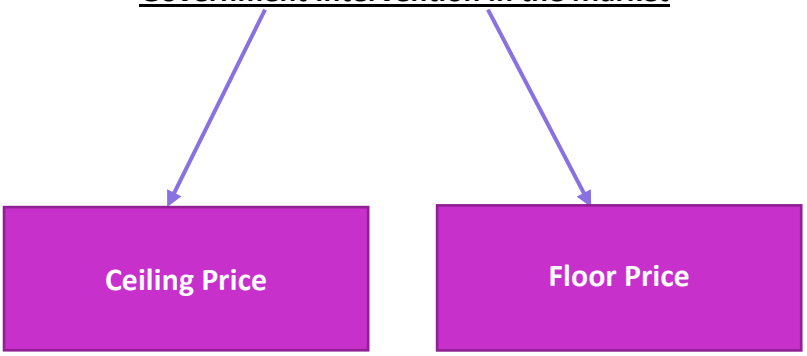
P_E	↓	>	Q_E	↑

Exercise 8

Write the effects of market equilibrium changes to the price and quantity equilibrium based on the situation below.

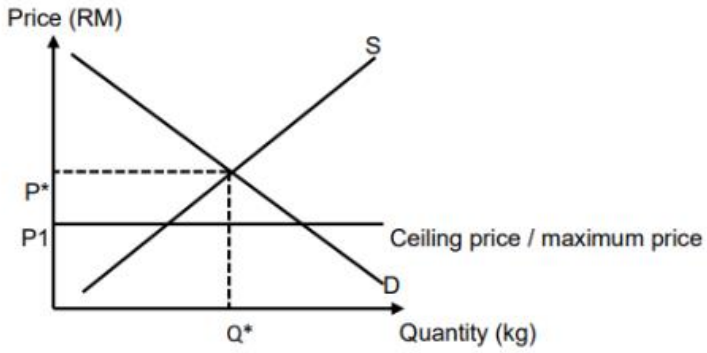
Effect of market equilibrium	Price and Quantity equilibrium
Increased in demand	
Decreased in demand	
Increased in supply	
Decreased in supply	
Increased in demand and supply	
Decreased in demand and supply	
Increased in demand and decreased in supply	

Government Intervention in the Market



Ceiling Price

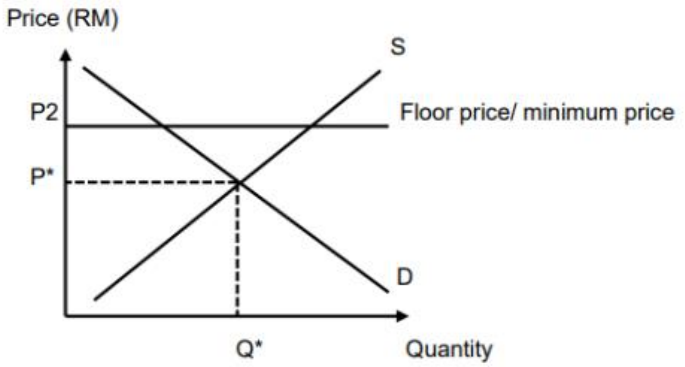
- A government-imposed regulation that prevents the prices from rising above a maximum level.
- Set by a government - called maximum price
- Eg: Equilibrium price of chicken is RM 10.50 and ceiling price is RM 9.50 per kg, consumer has benefit of RM 1.00 for each kg of chicken.
- To keep the price of goods below the market equilibrium price by setting the price below market equilibrium.



- Creates shortage of a commodity since quantity demanded exceeds quantity supplied.
- This can lead to black market or illegal market and reduced quantity produced.
- Action taken by government is rationing; one family can only buy one.
- Examples of goods like cooking oil, sugar, wheat flour, milk, cement, petrol and diesel.

Floor Price

- A government-imposed regulation that prevents prices from falling below a minimum level.
- Set by the government and also called minimum price.
- A legally mandate minimum price that buyers are required to pay for goods.
- To protect producers/ seller's income and the government purchases any surpluses of goods and services.
- To keep the price of goods above the market equilibrium price by setting the price above market equilibrium.



- Creates surplus of commodity since quantity supplied exceeds quantity demanded.
- This can create unemployment, consumers pay more and waste of resources of production.
- Action taken; government buys and gives to schools and hospitals.
- Examples of goods like agricultural and minimum wage rate.

Advantages and Disadvantages of Ceiling Price and Floor Price

	Ceiling Price	Floor Price
Advantages	• Consumers can buy products at lower prices.	• Producers' incomes are protected because the prices are higher than equilibrium price. • Lower paid workers are better off with a higher wage rate
Disadvantages	• Emergence of black market and some producers may take bribes from consumers • Quantity produced reduces	• Consumers pay more • Waste of resources in production • Create problem of unemployment

Exercise 9

Distinguish between Ceiling Price and Floor Price

Items	Ceiling Price	Floor Price
Definition		
Advantages		
Disadvantages		

TUTORIAL

Demand and supply functions are shown below.

Qd =100-5P

Qs = 10+ 15P

Where; Qd = Quantity demanded (units)

Qs = Quantity supplied (units)

P = Price (RM)

a) Calculate the quantity demanded and quantity supplied for prices starting from RM 1 until RM 6. (3 marks)

b) Based on the demand and supply function, calculate the equilibrium price and quantity. (3 marks)

c) Using a graph paper, draw the demand and supply curve for the equilibrium. (3 marks)

d) If the price of input increases, the supply curve will shift to the left and supply function will change from Qs = 10+12P to Qs1 = 10+ 8P. Calculate the new equilibrium price and quantity. (3 marks)

e) Draw the new demand and supply curve based on question (d) in the same graph as question (c). (3 marks)

ANSWER SCHEME

Exercise 1

X-axis = Quantity (units)

Y-axis = Price (RM)

Point for each price and each quantity = Demand Curve (DD)

Exercise 2

Q = 120 - 20P or Qd = 120 - 20P

Exercise 3

X-axis = Quantity (units)

Y-axis = Price (RM)

Point for each price and each quantity = Supply Curve (SS)

Exercise 4

Q = 30P or Qs = 30P

Exercise 5

DD = 1, 2, 5, & 7

SS = 3, 4, 6, & 8

Exercise 6

(i) EP = RM3 EQ = 15 units

(ii) Qd = 30 - 5P Qs = 5P

P = RM3 Q = 15 units

(iii) X-axis = Quantity (units)

Y-axis = Price (RM)

Point for each price and each quantity demanded = Demand curve (DD)

Point for each price and each quantity supplied = Supply curve (SS)

Intersect between DD & SS curve = E

Show equilibrium price = RM3

Show equilibrium quantity = 15 units

Exercise 7

(i) X-axis = Quantity (units)

Y-axis = Price (RM)

Point for each price and each quantity demanded = Demand curve (DD)

Point for each price and each quantity supplied = Supply curve (SS)

Intersect between DD & SS curve = E

(ii) Surplus above equilibrium point

Shortage below equilibrium point

(iii) Value of surplus and shortage -refer the graph from (i)

Exercise 8

Refer pages 25 - 29

Exercise 9

Definition -refer pages 31 & 32

Advantages & Disadvantages - refer page 33

Tutorial

a)

Price (RM)	Quantity demanded (RM)	Quantity supplied (RM)
1	100-5(1) =95	10+12(1)=22
2	100-5(2) =90	10+12(2)=34
3	100-5(3) =85	10+12(3)=46
4	100-5(4) =80	10+12(4)=58
5	100-5(5) =75	10+12(5)=70
6	100-5(6) =70	10+12(6)=82

b) $100 - 5P = 10 + 12P$

$100 - 10 = 12P + 5P$

$90 = 17P$

$5.29 = P$

$Qd = 100 - 5P$

$= 100 - 5(5.29)$

$= 100 - 26.45$

$=73.55$

c)

X-axis = Quantity (units)

Y-axis = Price (RM)

Point for each price and each quantity demanded = Demand curve (DD)

Point for each price and each quantity supplied = Supply curve (SS)

Intersect between DD & SS curve = E

Show equilibrium price = RM5.29

Show equilibrium quantity = 73.55 units

d) $100 - 5P = 10 + 8P$

$100 - 10 = 8P + 5P$

$90 = 13P$

$6.92 = P$

$Qd = 100 - 5P$

$= 100 - 5(6.92)$

$= 100 - 34.6$

$= 65.4$

e) Point for each price and each quantity supplied = New Supply curve (SS_1)

Intersect between DD & SS_1 curve = E_1

Show equilibrium price = RM6.92

Show equilibrium quantity = 65.4 units

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