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GCEO5113 - Business Economics
29 ${ }^{\text {th }}$ May 2021

## Business Economics/Economics for Managers

## Question 1:

The cross-price elasticity of two pairs of good is shown below.
Air-conditioning units and kilowatts of electricity, and cross price elasticity is - 0.34.

Coke and Pepsi, and cross price elasticity is $\mathbf{+} 0.63$
Explain the sign of each of the cross-price elasticities. What does it imply about the relationship between the two goods?

## Answer to question 1

A price increase per Aircon unit (+1) will lead into a lower demand of Kilowatts (-0.34). They are complementary. (one cannot function without the other one goods).

A price increase of Coke (+1) will lead into an increase of demand in Pepsi (+0.63). They are substitutes (one can replace the other goods within same purpose and same range of products).

## Question 2:

In Malaysia, medical costs have increased suddenly than other prices during Covid-19 Pandemic. Rising medical costs have affected consumer alternatives, let $X$ represent the quantity of medical items, and $Y$ represent the quantity of food items. Let income (M) of a household is RM200, the price of medical items $X=4$, and price of food items $Y=5$.

Draw the budget line and determine the market rate of substitution. Explain what happens to the budget constraint if price of medical items (Px) increases from RM 4 to RM10 while price of food items remains the same.

## Answer to question 2

## Table

Budget base per household is MYR 200.
Budget line 1 from 40(Y) to 50(x).
X 4 is product multiplied with MYR 4.
Y 5 is product multiplied with MYR 5.
The market rate of substitution is 22 .


## Table

Budget base per household is MYR 200.
Budget line 2 from 40(Y) to 20(x).
X10 is product multiplied with MYR 10.
Y 5 is product multiplied with MYR 5.
The market rate of substitution is 14.
Yellow budget line is based on the in table 1 used data and for comparison purposes only.

The red zone at the horizontal position reflects $X$ its loss of 30 sales of products within the budget of MYR 200 because of price raise with MYR 6.


## Question 3:

The government generally protects buyer and seller through introducing price regulation in the market. Draw a diagram and explain why Price Ceiling strategy is inefficient for optimum consumer and producer surplus.

## Answer to question 3

Price ceilings prevent a price from rising above a certain level. When a price ceiling is set below the equilibrium price, quantity demanded will exceed quantity supplied, and excess demand or shortages will result. Price floors prevent a price from falling below a certain level.

The next tables do support this explanation



Table 1 explained.
In a complete market, buyer and seller will share the space in between market price and cost price of seller. The table shows an optimum of buyer and seller at 600. (200 each)

At this level demand and supply is in balance.

Table 2 explained.
The same figures as table 1 but with a price ceiling at 500. The space in between market price and cost price of seller is divided in $1 / 3$ in favor of seller and $2 / 3$ in favor of buyer. At this level, seller lose 100 and may pulling back, leaving buyers undersupplied.

## Question 4:

Advertisement is one of the factors that influence customers to increase demand for a specific goods $Y$. Explain how the budget line shift due to price change of good $Y$ when the price of good $X$ remain the same.

## Answer to question 4

For this answer, I used the table belonging the answering question 2. In this table, product $Y$ remain unchanged in pricing, its product $X$ to change under the influence of advertising and price changing. This within the budget of 200.


At the horizontal position numbers are multiplied with 3 different prices in the range 2,4 and 10. At the vertical position the numbers are multiplied with 5.

Following the table where as $X=4$ is the basic price per unit, an increase of the basic price with $6(X=10)$ leads into falling of 30 units. A decrease of the basic price with 2 $(X=2)$ leads into a raise of 50 units.

The market rate of substitution by unchanged $Y=5$
$X=2$ results in 28
$X=4$ results in 22
$X=10$ results in 14

## Question 5:

## Draw a diagram to derive Individual demand curve and Market demand curve.

## The answer to question 5

Within a fixed budget and unchanged prices for substitute goods, the individual demands for product $X$ is shown in the next table.

Pricing $X$
2
4
10

Demand 1
28
22
14

Demand 2
12

Diagram


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