Business Economics – Micro (Assignment 1)

1.
    - The government intervenes in the market by imposing price ceilings and price floor.
    - Price ceiling is a maximum (low) price that the government sets below the market equilibrium.
    - Price floor is a minimum (high) price that the government sets above the market equilibrium.
    - In the case, when the government imposes a price ceiling, the demand is higher than the supply and hence this lead to a shortage.
    - This shortage leads sellers to having allocate the goods amongst its customers in one or more of the following ways:
        a. First come, first-served basis
        b. Random ballot
        c. Favoured customers
        d. A measure of merit
        e. A rule or regulation
    - Imposing price ceiling can also lead to the establishment of illegal markets or underground markets.
    - In the case, when the government imposes a price floor, the demand is lower than the supply and hence this lead to a surplus.
    - This is done in order to protect producers' income, deter the consumption of particular goods, minimum wage payments to the labours, etc.
    - Thus, depending upon the objective and what impact does the government wants to bring into the market, the government imposes either a price floor or a price ceiling.

2.
    Two different factors of production that an accountancy firm would use are:
    i. Land
    ii. Capital

    Any firm, may it be an accountancy firm, would require an office place to work from. Thus, land is a factor of production that the accountancy firm would employ in the form of an office in order to provide its services.

    Another factor of production that would be equipped by the accountancy firm would be capital. Since, the firm will require capital to start the firm as well as to keep the firm going concern.

3.

i.

Given that: P1 = £ 5

P2 = £ 8

Qs1 = 200 units

Qs2 = 400 units

To find: Price elasticity of supply

Solution:

Using average (midpoint) formula of arc elasticity,

$$Price\ elasticity\ of\ supply = \frac{Percentage\ or\ proportionate\ change\ in\ quantity\ supplied}{Percentage\ or\ proportionate\ changes\ in\ price}$$

$$Price\ elasticity\ of\ supply = \frac{\Delta Qs}{AverageQs} * \frac{Average\ P}{\Delta P}$$

$$Price\ elasticity\ of\ supply = \frac{Qs2 - Qs1}{(\frac{Qs1 + Qs2}{2})} * \frac{(\frac{P1 + P2}{2})}{P2 - P1}$$

$$Price\ elasticity\ of\ supply = \frac{400 - 200}{(\frac{400 + 200}{2})} * \frac{(\frac{5 + 8}{2})}{8 - 5}$$

$$Price\ elasticity\ of\ supply = 1.44444$$

ii.

The three factors that would alter the price elasticity of supply in an industry are as follows:

a. The amount that costs rise as output rises.
The less the additional costs of producing additional output, the more firms will be encouraged to produce for a given price rise: the more elastic will supply be.

b. Feasibility of switching to produce different good.
If switching to produce alternative goods is feasible, then the supply tends to be more elastic.

c. Time period
Depending on whether the time period is short run or long run, the supply tends to be inelastic and elastic respectively.

4.

i.

- Normal goods refer to those types of goods whose demand decreases as the income of consumer increases.
- Inferior goods refer to those types of goods whose demand decreases as the income of consumer increases.
- For example, let's say a person travels in bus to go to work. However, if the income of the person increases, he/she might switch to using private cab or might purchase and travel in a new car. Thus, the demand for travelling through bus has decreased post an increase in the income of the consumer.

ii.

a.

- The relationship between income with normal and inferior good is said to be Geffen's paradox.
- Geffen's paradox states that the demand for inferior goods decrease as the income of consumer increases whereas the demand for inferior goods increases as the income of consumers decreases.

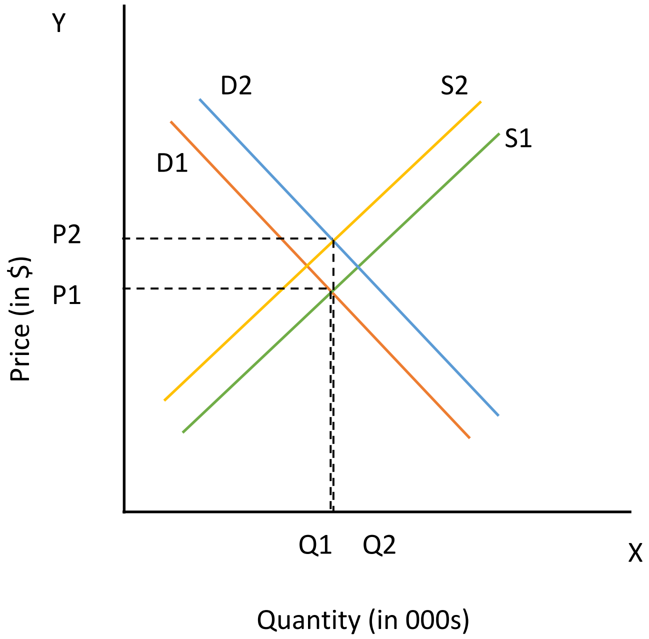
b.

Two examples of food products that would fit the description of inferior goods are:

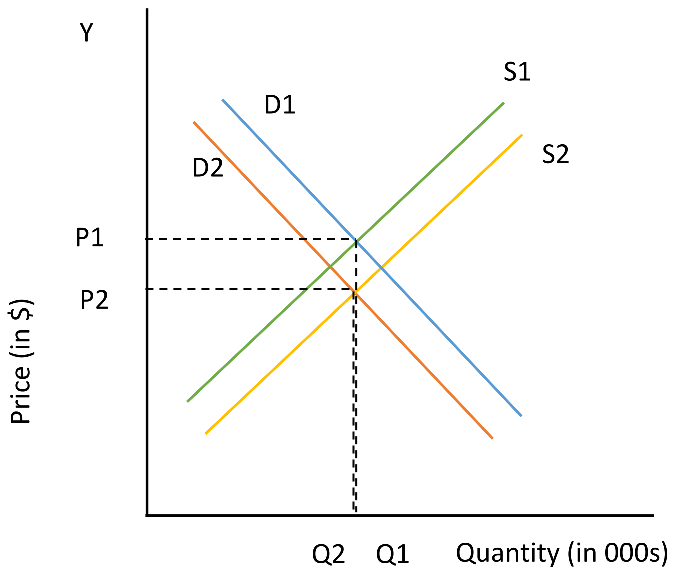
Low quality rice, Frozen / Packaged food.

5.

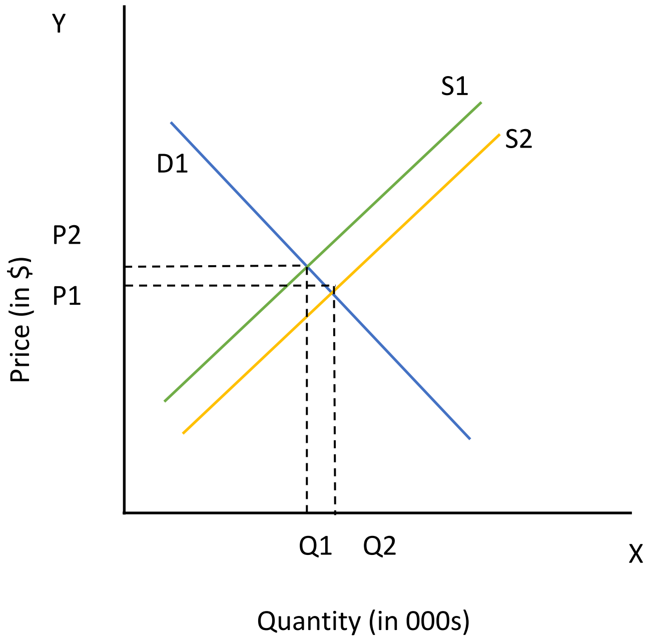
i. A fall in the price of a complementary good



A fall in consumer's income



A rise in labour productivity in the industry that produces Good X



Q.6]

(i)

Answer:

Given that: P1 = 50

P2 = 45

Qd1 = 250

Qd2 = 300

To find: Own price elasticity of demand

Solution:

Using average (midpoint) formula of arc elasticity,

$$Price\ elasticity\ of\ demand = \frac{Percentage\ or\ proportionate\ change\ in\ quantity\ demand}{Percentage\ or\ proportionate\ changes\ in\ price}$$

$$Price\ elasticity\ of\ demand = \frac{\Delta Qd}{Average\ Qd} * \frac{Average\ P}{\Delta P}$$

$$Price\ elasticity\ of\ demand = \frac{Qd2 - Qd1}{(\frac{Qd1 + Qd2}{2})} * \frac{(\frac{P1 + P2}{2})}{P2 - P1}$$

$$Price\ elasticity\ of\ demand = \frac{300 - 250}{(\frac{300 + 250}{2})} * \frac{(\frac{50 + 45}{2})}{45 - 50}$$

$$Price\ elasticity\ of\ demand = -1.73$$

(ii)

Answer:

Given that: P1 = 60

P2 = 65

Qs1 = 100

Qs2 = 110

To find: Price elasticity of supply

Solution:

Using average (midpoint) formula of arc elasticity,

$$Price\ elasticity\ of\ supply = \frac{Percentage\ or\ proportionate\ change\ in\ quantity\ supplied}{Percentage\ or\ proportionate\ changes\ in\ price}$$

$$Price\ elasticity\ of\ supply = \frac{\Delta Qs}{AverageQs} * \frac{Average\ P}{\Delta P}$$

$$Price\ elasticity\ of\ supply = \frac{Qs2 - Qs1}{(\frac{Qs1 + Qs2}{2})} * \frac{(\frac{P1 + P2}{2})}{P2 - P1}$$

$$Price\ elasticity\ of\ supply = \frac{110 - 100}{(\frac{110 + 100}{2})} * \frac{(\frac{60 + 65}{2})}{65 - 60}$$

$$Price\ elasticity\ of\ supply = 1.19$$

(iii)

Answer:

Answer:

Given that: Y1 = 50

Y2 = 70

Qd1 = 250

Qd2 = 280

To find: Income elasticity of demand

Solution:

Using average (midpoint) formula of arc elasticity,

$$Income\ elasticity\ of\ demand = \frac{Percentage\ or\ proportionate\ change\ in\ quantity\ demand}{Percentage\ or\ proportionate\ changes\ in\ income}$$

$$Income\ elasticity\ of\ demand = \frac{\Delta Qd}{Average\ Qd} * \frac{Average\ Y}{\Delta Y}$$

$$Income\ elasticity\ of\ demand = \frac{Qd2 - Qd1}{(\frac{Qd1 + Qd2}{2})} * \frac{(\frac{Y1 + Y2}{2})}{Y2 - Y1}$$

$$Income\ elasticity\ of\ demand = \frac{280 - 250}{(\frac{280 + 250}{2})} * \frac{(\frac{50 + 70}{2})}{70 - 50}$$

$$Income\ elasticity\ of\ demand = 0.34$$

Since, Income elasticity of demand is positive, thus the good is a normal good.

(iv)

Answer:

Given that: $\mathrm{P1(y)} = 60$

$\mathrm{P2(y)} = 65$

$\mathrm{Qd1(x)} = 250$

$\mathrm{Qd2(x)} = 220$

To find: Cross price elasticity of demand of good X with respect to price of good Y

Solution:

Using average (midpoint) formula of cross price elasticity,

$$Cross\ price\ elasticity\ of\ demand = \frac{Percentage\ or\ proportionate\ change\ in\ quantity\ demand\ (X)}{Percentage\ or\ proportionate\ changes\ in\ price\ (Y)}$$

$$Cross\ price\ elasticity\ of\ demand = \frac{\Delta Qd(X)}{Average\ Qd(X)} * \frac{Average\ P(Y)}{\Delta P(Y)}$$

$$Cross\ price\ elasticity\ of\ demand = \frac{Qd2(X) - Qd1(X)}{(\frac{Qd1(X) + Qd2(X)}{2})} * \frac{(\frac{P1(Y) + P2(Y)}{2})}{P2(Y) - P1(Y)}$$

$$Cross\ price\ elasticity\ of\ demand = \frac{220 - 250}{(\frac{220 + 250}{2})} * \frac{(\frac{60 + 65}{2})}{65 - 60}$$

$$Cross\ price\ elasticity\ of\ demand = -1.60$$

Since, cross price elasticity of demand is negative, the goods X and Y are complementary goods.

Q.7]

Answer:

- The law of demand states that the demand for a good or service is inversely proportional to its price under the assumption of ceteris paribus.
- Inferior goods are an exception to the law of demand.
- All the goods that follow the law of demand has a downward sloping demand curve.
- For example, let's consider apple.

We know, that as the prices of apple increases people will cut back on the number of apples they consume assuming other things remain constant.

Thus, the following demand schedule can be constructed,

(Note: The prices and demand in the demand schedule is completely hypothetical)

Price of apples (in Rs.) (per kg)	Amount of apples consumed (in kg)
50	6
75	5
100	4
125	3
150	2
175	1

Q.8]

Answer:

(i)

Microeconomics	Macroeconomics

Microeconomics refers to the branch of economics that is concerned with individual units of the economy.	Macroeconomics refers to the branch of economics that is concerned with the economy as a whole.
It has a limited scope.	It has a wide scope.
One of the features is slicing method	One of the features is lumping method
Partial equilibrium is studied under microeconomics	General equilibrium is studied under macroeconomics

(ii)

Market refers to any place or platform where two parties i.e., a buyer and a seller meet (interact) and facilitate the exchange of goods and services.

E.g., Stock market is a market where investors meet and exchange financial securities and capital.

Q.9]

Answer:

(i) The price of a substitute good falls
The demand curve of the good shifts to the left.

(ii) The price of a complementary good falls
The demand curve of the good shifts to the right.

(iii) The good becomes more expensive
There is no shift in the demand curve.

(iv) Consumers' real income rises
The demand curve of normal goods shift to the right whereas the demand curve of inferior good shift to the left.

Q.10]

(i)

Answer:

The factors of production that exist within an economy are as follows:

1. Land
2. Labour
3. Raw materials
4. Capital
5. Entrepreneur

(ii)

Answer:

1. The amount of land on Earth is limited. Hence, with an increase in the development of building and other structural projects, the amount of land available for use is decreasing resulting in its scarcity.
2. The number of labours is limited. Hence, with an increase in their employment and/or decrease in the number of labours is resulting in their scarcity.
3. The amount of raw materials on Earth is limited. Hence, with an increase in the number of firms in an industry, the amount of raw materials available for use is decreasing resulting in its scarcity.
4. If investors are not willing to invest then it can lead to a scarcity of capital for firms.
5. With a decrease in the number of budding and skilled entrepreneurs, industry is facing scarcity of entrepreneurs.

Q.11]

Answer:

The factors that are likely to influence house prices are as follows:

1. Location

The house prices are greatly influenced by the location where they are located at.

2. Size

Larger houses generally tend to have a higher price than smaller houses.

3. Facilities

The number of facilities available can change the price of the houses.

4. State of the economy

If the economy is good, the income of the people is good and there is not situation as a pandemic then the price of the houses may be higher.

Q.12]

(i)

Answer:

If a product has a relatively price inelastic demand then the major burden of the tax is faced by the consumers. Also, because the demand is relatively price inelastic, then the consumers cannot instantly decrease the amount of good that they consume. Hence, the government will be in a position to receive higher amount of tax.

The pink portion denotes the consumer's share of tax while the green portion represents the producer's share of tax.

Q.13]

Answer:

- Utility is a subjective and a relative concept.
- The amount of utility you gain from a refrigerator is uncertain because for instance it can depend on when you purchase the refrigerator.
  Let's say the refrigerator you own has broken down and is not working. On the other hand, let's consider that you have bought a second refrigerator even though your current refrigerator is working fine. In these two cases the amount of utility you get from the first case will be higher than the amount of utility you get from the second case.
- It would also depend on the brand of refrigerator you purchase, its size, place of purchase, etc.

Q.14]

(i)

Answer:

A maximum price set below the free-market price refers to the situation where the government has imposed a price ceiling.

The supply and demand for Good X was initially in equilibrium resulting in an equilibrium price and quantity.

Upon the introduction of price ceiling, the price of Good X will reduce, the quantity supplied will decrease, the quantity demanded will increase and the outcome will be a shortage of good X.

(ii)

Answer:

A guaranteed minimum price set above the free-market price refers to the situation where the government has imposed a price floor.

The supply and demand for Good X was initially in equilibrium resulting in an equilibrium price and quantity.

Upon the introduction of price floor, the price of Good X will increase, the quantity supplied will increase, the quantity demanded will reduce and the outcome will be a surplus of good X.

Q.15]

(i)

Answer:

Uncertainty

When an outcome may or may not occur and its probability of occurring is not known, it refers to uncertainty.

Risk

When a (desirable) outcome of an action may or may not occur, but the probability of its occurring is known refers to risk. The lower the probability, the greater the risk involved in taking the action.

(ii)

Answer:

A simple way that firms can reduce the problem of uncertainty is by holding stocks. Take the case of the wheat farmers. At the time when they are planting the wheat in the spring, they are uncertain as to what the price of wheat will be when they bring it to market. If they keep no stores of wheat, they will just have to accept whatever the market price happens to be at harvest time. If, however, they have storage facilities, they can put the wheat into store if the price is low and then wait until the price goes up. Alternatively, if the price of wheat is high at harvest time, they can sell the wheat straight away. In other words, they can choose the time to sell.

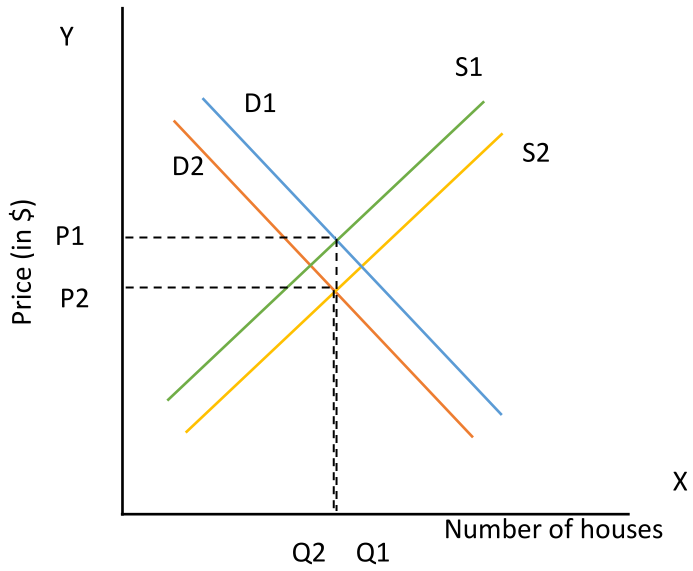
Q.16]

Answer:

(i) An increase in the interest rates

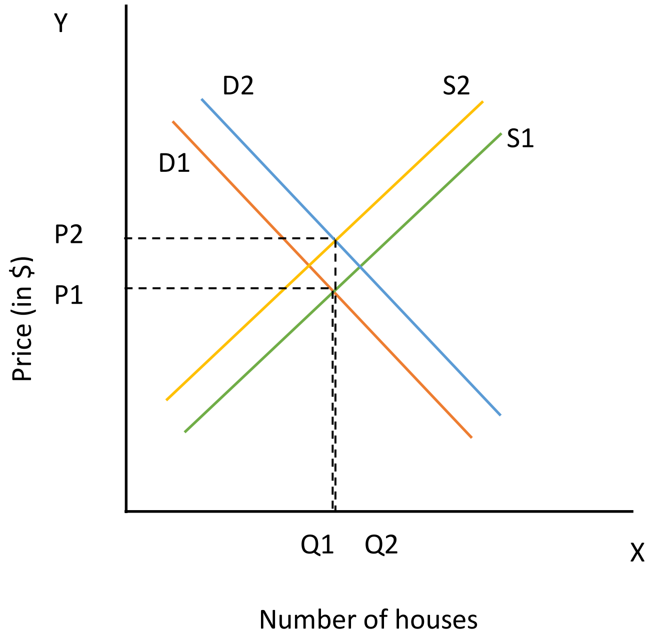
Since, there is an increase in the interest rates, the demand for houses will reduce, since many people will resist taking loans.

And since, many house owners will be in need of money because of higher interest rates the supply of houses may go up.



(ii) An expected rise in future house prices

Since, there is an expectation that the prices may go up in the future, the current demand will increases and the supply will decrease.



Q.17]

Answer:

The factors that affect the demand for share:

1. Demand and supply
2. Company fundamentals
3. State of the economy
4. Interest rates
5. Inflation
6. Political climate
7. Foreign exchange rates

8. Foreign markets
9. Tax rates
10. Credit availability
11. Any news related to the company

Q.18]

Answer:

The factors that would cause the demand curve for sports car to shift to the right are as follows:

1. Decrease in the price of petrol

Since, petrol and sports car are complementary goods, a decrease in price of petrol will cause the demand for sports car to increase, thus shifting its demand curve to the right.

2. Increase in the number of sports car driver

Since, the number of consumers of sports cars i.e., sports car drivers increase the demand for sports car will increase causing its demand curve to shift to the right.

3. Income of consumer

As the income of consumer increases, more and more people will purchase sports car, causing its demand to increase and thus shifting its demand curve to the right.

Q.19]

Answer:

The factors that affect the supply of oil are as follows:

1. Increased oil consumption
2. Number of oil reserves
3. Exchange rates
4. Transportation
5. Tax agreements
6. Environmental factors
7. Political factors
8. State of other financial markets

Q.20]

Answer:

→Macroeconomics

Macroeconomics refers to the branch of economics that is concerned with the economy as a whole.

→Microeconomics

Microeconomics refers to the branch of economics that is concerned with individual units of the economy.

Q.21]

Answer:

- Firms would prefer consumer demand to be inelastic, rather than elastic, following an increase in price, because even though the price has increased the quantity demanded won't fall significantly.
- The total revenue of the firm in case of inelastic demand moves in the direction of the change in price. Thus, an increase in the price will also result in an increase in the firm's total revenue.
- Also, if the price rise is owing to a particular tax imposed by the government, then in the case of inelastic demand, consumers face a higher share of the tax.