Economics -0455

CHAPTER 2

THE ALLOCATION OF RESOURCES

1. Define microeconomics. (2)

Microeconomics is economics on a small scale. It covers activity in individual markets. For example, a microeconomic topic is changes in the demand for and output of oranges.

2. Explain whether decisions in microeconomics involve an opportunity cost. (4)

The vast majority of decisions in microeconomics involve an opportunity cost. This is because they have implications for the use of economic resources which have alternative uses. For example, a decision by households to buy more chocolate may mean that they are giving up the opportunity to buy fruit.

A decision by a footwear manufacturer to produce more shoes may mean that it has to reduce its output of boots. It is only in the case of a free good, such as air, which is available in an infinite quantity without production, that there is no opportunity cost.

3. Identify two key resource allocation decisions. (2)

Any two from:

- what to produce,
- how to produce it and
- for whom to produce.

4. Explain the difference between market equilibrium and market disequilibrium. (4)

Market equilibrium is where demand and supply are equal. In this situation, there is no reason for price to change. This is because the market clears with no products left unsold and no willing buyers unable to purchase the product.

In contrast, market disequilibrium occurs when demand and supply are not equal. There is either a surplus or a shortage. This lack of balance between demand and supply causes the price to change until demand and supply are again equal.

5. Analyse the functions of the price mechanism. (6)

The price mechanism has three main functions. It acts as a rationing device. When demand exceeds supply, price is driven up. The rise in price reduces demand until it again equals supply. Those who receive the product will be those who are still willing and able to buy the product at this higher price.

The price mechanism provides producers with useful information about changes in consumer demand. It signals to them which products are becoming more popular and which are becoming less popular. If consumers demand more of a product, its price will rise. Similarly, if they demand less of a product, its price will fall.

As well as providing producers with information about changes in consumer demand as well as changes in supply, it also gives them an incentive to respond to those changes. Producers can earn more profit by producing products in high demand whereas they may make a loss if they make products people do not want to buy.

6. Define market demand. (2)

Market demand is the total demand for a product. It is found by adding up the demand from each individual at a particular price.

7. Explain the relationship between demand and a change in price. (4)

The relationship between quantity demand and price is an inverse one. This is because a rise in price would reduce people's willingness and ability to buy a product. The higher price is likely to encourage some people to substitute products. As the product is more expensive, it is also likely to mean that not as many people will be able to afford to buy it in the same quantity.

8. Analyse the effect of a rise in the price of tea on the demand for milk and the demand for coffee. (6)

A rise in the price of tea will be likely to result in people buying less tea. The demand for tea will contract. Milk is a complement to tea as some people put milk into tea. As less tea is being drunk, the demand for milk will decrease. The demand for milk decreases rather than contracts because the change has not been caused by a change in the price of milk. Demand for milk will be less at each and every price of milk.

Coffee is a substitute to tea. If tea becomes more expensive, some people will switch from buying tea to buying coffee. As a result, the demand for coffee will increase. Again, this change has not been caused by a change in the price of coffee but due to the change in the price of a related product.

9. Discuss whether or not the demand for bicycles will rise in the future. (8)

The demand for bicycles may decrease in the future. This is because in a number of countries, bicycles are an inferior good. As income rises, people switch to other forms of transport, particularly car travel. Many people find it more comfortable to travel in a car especially during bad weather.

Changes in the size and age structure of the population may reduce demand for bicycles in particular countries. For instance, the population of Japan is declining so there are fewer people to buy bicycles. Japan is also experiencing a decline in the proportion of young people in the age population. Young people are more likely to ride a bicycle than older people.

There are, however, some reasons for thinking that demand for bicycles may rise in the future. Population size is still increasing in many countries, including in some countries where average income is low.

More people are also cycling in a bid to get fitter and because of concern about the environmental effects of car driving. Some governments are encouraging an increase in cycling by providing cycle lanes.

There is, in addition, the possibility that with advances in technology, the price of bicycles may fall in the future. This would make the bicycles more affordable and so would be likely to cause an extension in demand.

10. Define supply. (2)

Supply is the willingness and ability to sell a product.

11. Explain why supply and price are positively related. (4)

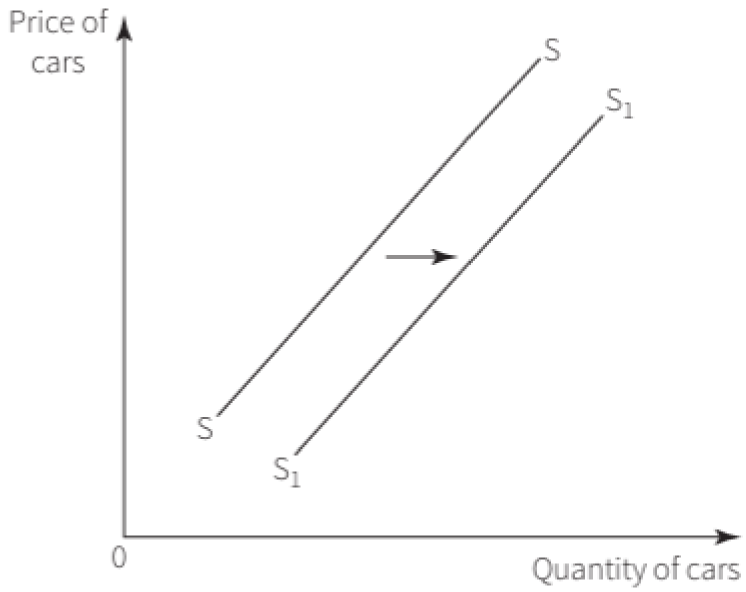
A rise in price will cause an extension in supply.

This positive relationship exists because a higher price will provide firms with an incentive to produce more of the product as they will gain a higher profit.

As well as making firms more willing to supply the product, a higher price will also make them better able to supply more as they will find it easier to cover their costs of production.

12. Analyse, using a supply diagram, the effect of an improvement in the quality of the training car workers receive on the supply of cars. (6)

An increase in the quality of training that car workers receive should make them more skilled and more productive. As workers will be able to produce more cars in a given period of time, the cost of producing each car will fall. A lower cost of production will cause an increase in supply as shown by the shift to the right of the supply curve shown below.



13. Discuss whether or not changes in demand or changes in supply have a larger influence on the market for tomatoes. (8)

The market for tomatoes is affected by both changes in demand and changes in supply. Demand for tomatoes may increase if incomes rise and people decide to use some of their higher income on purchasing fresh fruit and vegetables. People may also buy more tomatoes if the price of related products changes.

For example, people will buy more tomatoes if a substitute, such as red peppers, rises in price or if a complement, such as bread in the case of tomato sandwiches, falls in price. An increase in population and a successful advertising campaign would result in higher demand for tomatoes. In addition, a report stating that eating tomatoes promotes good health would encourage people to eat more tomatoes.

Changes in supply may also affect the market for tomatoes. An increase in costs of production or the removal of a subsidy given to farmers who grow tomatoes would cause supply to decrease. Changes in the price of other agricultural products sometimes influence the supply of tomatoes. For instance, if onions rise in price due to higher demand, some farmers may decide to switch some of their land from growing tomatoes to growing onions.

The main influence on the market for tomatoes in some countries is changes in weather conditions. Periods of bad weather and the outbreak of pests and diseases can result in a significant reduction in the supply of tomatoes, which can push up their price. The spread of growing tomatoes in polytunnels and greenhouses is, however, reducing the significance of this influence and reducing seasonal fluctuations in price. In the future, the main influence on the market for tomatoes may be advances in the technology used in tomato cultivation.

14. What may be the opportunity cost of buying apples? (2)

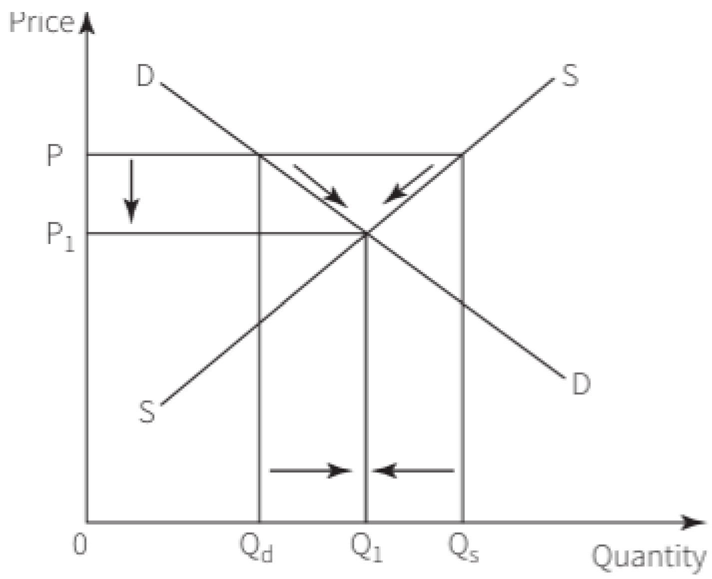
Opportunity cost is the best alternative forgone. The opportunity cost of buying apples may be, for instance, buying oranges. Money spent on apples cannot be spent on anything else.

15. Explain why the market for apples may be in disequilibrium. (4)

The market for apples may be in disequilibrium because either demand exceeds supply or supply exceeds demand. Demand will exceed supply if price is below equilibrium. In this case, there will be a shortage. Supply will be greater than demand if price is above equilibrium. This time there will be a surplus.

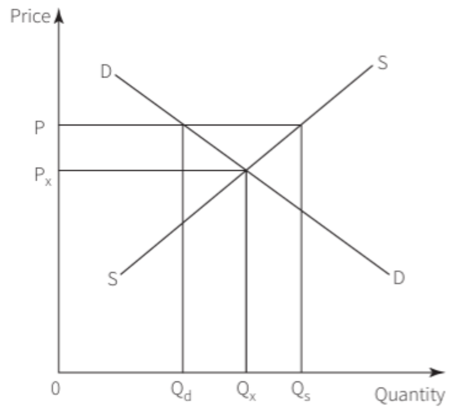
16. Analyse, using a demand and supply diagram, why a surplus of apples will be eliminated. (6)

A surplus of apples will be eliminated by the downward pressure that market forces put on the price. Producers, unable to sell all that they want to, will have to lower price. As price falls, supply will contract and demand will extend until they are both again equal as shown in the diagram below.

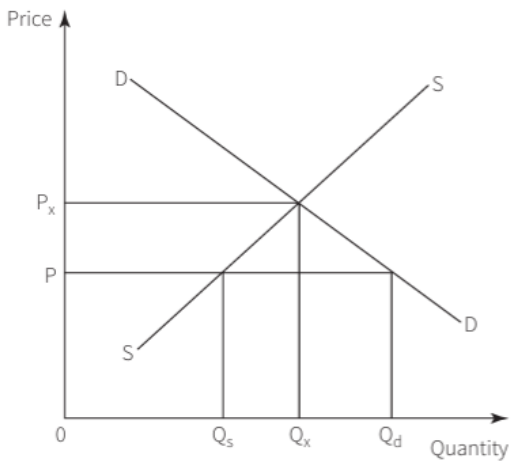


17. Discuss whether or not consumers will benefit from a market being in disequilibrium. (8)

Consumers will not benefit from a market being in disequilibrium if price is above the equilibrium level. Those who do buy the product, Qd quantity on the diagram below, are paying more than the market price. The quantity bought and sold, Qd , is also below the equilibrium level of Qx . This means that there are some unsatisfied consumers.



Some consumers will benefit from the price being below the equilibrium. In the diagram below, sales will be Qs at the price of P. There are, however, some unsatisfied consumers at this price. Indeed, there is a shortage of Qd – Qs .



The greatest satisfaction for consumers in total is gained when the market is in equilibrium. In this situation, all those willing and able to purchase the product are able to buy it and the price is at the minimum producers would be prepared to accept to sell that quantity.

18. Identify two causes, apart from an increase in income, of an increase in demand for a product. (2)

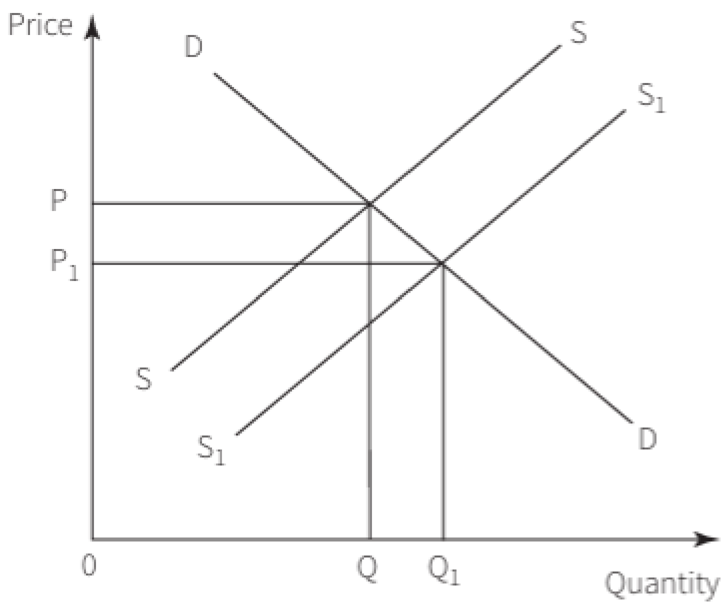
For example: a successful advertising campaign and an increase in the price of a substitute.

19. Explain why an increase in wages is likely to increase demand but may reduce supply. (4)

An increase in wages will increase demand for normal goods. This is because people will have a greater ability to buy products – their purchasing power has increased. Supply, however, may decrease. This is because higher wages will increase costs of production, if productivity does not increase in line with the higher wages.

20. Analyse, using a demand and supply diagram, the granting of a subsidy to the producers of a product. (6)

The granting of a subsidy is designed to encourage producers to supply more. It is likely to increase supply. The higher supply will lower price and the lower price will cause demand to extend as shown on the diagram below.



21. Discuss whether or not the price of air travel is likely to rise in the future. (8)

The price of air travel may increase in the future. Population increases will increase the number of potential passengers. Air travel is used by business passengers and by tourists. An increase in income would be likely to be accompanied by an increase in business activity and so there would be more business passengers. Air travel is a complement to foreign holidays, which are a normal good. As people get richer, they are likely to take more foreign holidays and to travel further. Airlines may also decide to spend more on advertising, which may stimulate higher demand.

Other forms of transport are a substitute for air travel and so demand for air travel will be affected by changes in the price and quality of these forms of transport. For example, if train travel rises in price, some people may switch to air travel for some journeys. A fall in the quality of sea travel may also encourage an increase in demand for air travel.

As well as increases in demand pushing up price, a decrease in supply may result in a higher price of air travel. For instance, the cost of fuel may increase, which would reduce supply and raise price.

There are, however, reasons for thinking that the price of air travel may fall in the future. Some governments subsidise their countries' airlines and they may increase the subsidies they give. Air travel is a very safe method of transport but a major crash may discourage some people from flying.

A significant reason why the price may fall is advances in technology. Planes are becoming more fuel-efficient and there are a number of larger planes being developed. In recent years, the relative price of air travel has fallen

22. Define price elasticity of demand. (2)

Price elasticity of demand is a measure of the responsiveness of demand to a change in price. It is measured by the formula:

Price Elasticity of Demand Formula

$$\frac{(Q2-Q1)\ /\ Q1}{(P2-P1)\ /\ P1} = \text{Price Elasticity of Demand}$$

Where:

Q1 = the interest or coupon payment.

Q2 = the face value of the bond.

P1 = the current market price of the bond.

P2 = how many years it takes for the security to reach maturity.

23. Explain the difference between inelastic demand and perfectly inelastic demand. (4)

Inelastic demand is when a change in price results in a smaller percentage change in quantity demanded. The PED value will be less than 1 but greater than zero. PED is sometimes illustrated by a steep downward sloping demand curve.

In contrast, perfectly inelastic demand occurs when a change in price results in no change in demand. In this case, PED equals 0 and the demand curve is a straight vertical line.

24. Analyse how the price elasticity of demand of a product influences the relationship between changes in price and total revenue. (6)

When demand is elastic, price and total revenue move in the opposite direction. A rise in price will cause demand to fall by a greater percentage. This will result in a decrease in the total amount consumers spend on the product and so the total revenue producers receive. When demand is perfectly elastic, a rise in price will cause total revenue to fall to zero as all demand would be lost.

In contrast, when demand is inelastic, price and total revenue move in the same direction. A rise in price will cause demand to fall by a smaller percentage. This will increase the total spending on and revenue received from the product. When demand is perfectly inelastic, a rise in price will have no effect on the quantity demanded. As a result, price and total revenue will rise by the same percentage.

In the case of unit price elasticity of demand, a change in price will affect demand but will have no effect on total spending and revenue. For example, a rise in price will cause demand to fall by an equal percentage and so total spending and total revenue would remain unchanged.

25. Discuss whether or not demand for laser eye surgery will become more inelastic over time. (8)

There is the possibility that demand for laser eye surgery may become more elastic over time. This is because alternatives to laser eye surgery may be developed and people will have more time to seek alternatives.

The creation of more substitutes will reduce the power of opticians offering laser surgery to raise their prices.

Existing products, such as contact lenses may also fall in price and/or rise in quality, and so become closer substitutes.

It is, however, likely that demand will become more inelastic over time. This is because incomes tend to rise over time and the cost of providing the treatment may fall with advances in technology.

Both these changes are likely to reduce the price of laser eye surgery as a proportion of people's income. Higher incomes may also change the perception of laser eye surgery. In the future, it may be seen as less of a luxury.

26. Define perfectly inelastic supply. (2)

Perfectly inelastic supply occurs when a change in price has no effect on supply. Supply remains constant as price changes and so PES is zero.

27. Explain how an economist can determine whether the supply of a product is elastic or inelastic. (4)

There are two ways an economist could determine whether supply is elastic or inelastic. The most reliable is to calculate the price elasticity of supply.

Supply is elastic if PES is greater than 1.

It is inelastic if PES is greater than 0 but less than 1.

An economist could also examine the supply curves. Supply is elastic if the supply curve is shallow.

In the case of a straight-line supply curve, it will be one that would touch the vertical axis. In contrast, supply is inelastic if the curve is steep.

A straight-line supply curve illustrating inelastic supply would touch the horizontal axis.

28. Analyse why the supply of agricultural products tends to be more inelastic than the supply of manufactured products. (6)

The supply of agricultural products tends to be more inelastic than the supply of manufactured goods for two main reasons.

One is that the production period is often longer. It takes time for crops to grow and livestock to reach maturity.

The second reason is that some agricultural products – such as onions, for instance – cannot be stored.

This means that should demand and therefore price increase, supply cannot be raised by drawing on stocks.

If demand and so price fall, units of the product cannot be taken off the market until price rises.

29. Discuss whether or not producers would want the demand and the supply of their product to be more price elastic. (8)

Producers would want the supply of their product to be more elastic. This is because they are likely to be in a better financial position if they can respond quickly and fully to changes in demand and price.

If price rises due to higher demand, producers would want to take advantage of the favourable market conditions.

By supplying more, their profits may rise. If demand and prices fall, producers would want to reduce their supply.

They would not want to sell their products if the price is lower than the cost of producing the product.

Removing products from sale now may enable them to be put back on the market if price should rise in the future.

While producers would want supply of their products to become more elastic, they are unlikely to want the demand for their products to become more elastic.

This is because it is likely to mean that the producers' products now have closer substitutes.

This increased competition would restrict the producers' ability to raise price and would put pressure on them to keep price low.

30. Identify two differences between the private sector and the public sector. (2)

One difference is that firms in the private sector are owned by shareholders or individuals whereas firms in the public sector are owned by the government.

Another difference is that profit is the main aim followed by firms in the private sector whereas the public sector may seek to improve the welfare of the country's population.

31. Explain why consumers are said to be sovereign in a market economic system. (4)

Consumers are said to be sovereign in a market economic system as they determine what is produced.

They signal their choices by means of the price mechanism. If they want to buy more of a product, they will bid up its price which will encourage firms to allocate more resources to its production.

If they want to buy less of a product, the price they are willing to pay will fall. The reduction in price will result in fewer resources being allocated to its production.

32. Analyse the role of profit in a market economic system. (6)

Profit plays a key role in a market economic system. Profit is the incentive firms have to respond to the signals that consumers send via price changes.

The opportunity to earn a profit encourages firms to produce the products consumers are willing and able to buy, using the most efficient methods of production.

If consumers demand more of a product, its price will be bid up. More revenue will be earned by making the product, which may increase their profit. If firms can cut the costs of production by, for instance, introducing new, more productive capital equipment, their profit will again rise.

Those firms that are the most efficient will gain the highest profits. They will have the finance to expand, while those firms that are inefficient and cannot make a profit may go out of business.

33. Discuss whether or not prices will be low in a market economic system. (8)

Prices may be low in a market economic system. This is because there may be a high level of competition in such a system and because profit plays a key role. If there are a high number of firms competing for the custom of consumers, they will have to keep their prices low. To make a profit when prices are low, costs will have to be lower.

This means that firms will have to use the most efficient methods of production, which keep cost per unit low and so enable them to charge low prices. A market economic system, however, does not mean that all prices will be low.

Indeed, if a market economic system is working efficiently, the prices of products that are in high demand will be high relative to those products that are less popular. This difference in price will encourage more resources to be devoted to those products that are most in demand.

The prices of the popular products may still be lower than might exist in other types of economic systems if there is a quick and full response to changes in market conditions. There is, however, no guarantee that a market economic system will always work efficiently.

There may not be a high level of competition in all markets. If one firm dominates a market, it will have more power than consumers. It will be able to raise the price it charges because consumers will not be able to switch to substitutes.

There are a number of other reasons why inefficiency may occur in a market economic system, causing prices to be high.

For instance, firms may want to respond to an increase in consumer demand by producing more. If, however, they have difficulty recruiting more workers due to the occupational and/or geographical immobility of labour, they may not be able to adjust their supply by much.

Inelastic supply will mean an increase in demand that will result in a higher rise in price than would have been the case with elastic supply.

A market economic system has the potential to keep prices low if there is, for instance, a high level of competition and mobility of factors of production. In practice, this does not always occur in all markets.

34.Define an external cost. (2)

An external cost is a harmful effect on third parties, that is on people not directly involved in consuming and producing a product. For example, people living near a steel factory may suffer from the pollution the factory creates.

35.Explain the diff erence between a merit and a demerit good. (4)

A merit good is one that the government considers is more beneficial to consumers than they realise and it generates external benefits. The social benefit of a merit good exceeds the private benefits.

As a result, a merit good is underconsumed and underproduced if left to market forces. In contrast a demerit good is one that the government thinks is more harmful to consumers than they appreciate and it causes external costs. It is overconsumed and so overproduced if left to market forces

36. Analyse why the social benefit of education exceeds the private benefits. (6)

Social benefit includes private and external benefits. The social benefit of education exceeds the private benefits of education because education has external benefits. The private benefits of education include the development of skills, increased earning potential and an increased range of interests.

As well as the benefits to those being educated, others may gain. The external benefits include increased output and better quality output due to higher labour productivity. More and better products can be consumed. There may also be increased tax revenue arising from higher incomes. This extra tax revenue may be spent on, for example, healthcare, which can be enjoyed by third parties. A more educated country may also be a more civilised and compassionate society.

37. Discuss whether or not trees in the rainforests of Brazil should continue to be cut down. (8)

The rainforests, in the Amazon region of Brazil, are being cleared at a relatively rapid rate. The firms that are engaged in logging in the forests are only taking into account private costs and benefits.

In the case of a logging firm, private costs will include, for example, the cost of transporting the wood and the cost of labour. The private benefit a logging firm receives from selling the wood is the revenue it earns. The company will continue cutting down trees, as long as the revenue received by it exceeds its costs.

External costs caused by the logging firms may include damage to wildlife habitats, loss of plant species that could be used to develop medicines, global warming and interference with the lifestyle of local tribes.

External benefits may include reduced transport costs for tourism firms in the area due to construction of roads by logging firms and tax revenue. While making its decisions on the number of trees to be cut down, a logging company will not take these external costs and benefits into account.

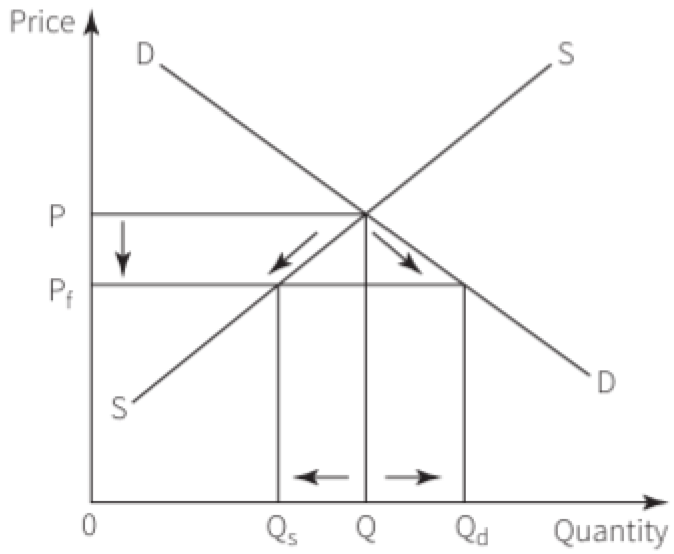
The decision as to whether trees should continue to be cut down in the Brazilian rainforests should be based on the relationship between social cost and social benefit. If the social cost exceeds the social benefit, no more trees should be cut down.

38. Define a minimum price. (2)

A minimum price is a price floor. To have any effect, a minimum price has to be set above the equilibrium price. The price can be above the legally enforced minimum but cannot be below. An example of a minimum price is a minimum wage where employers have to pay a wage at least equal to this.

39. Explain how a maximum price will affect a market. (4)

A maximum price set above the equilibrium level will have no effect. This is because producers could still charge the equilibrium and comply with the law. A maximum price set below the equilibrium, which it is where it is normally set, will result in a lower price. The diagram below shows that the fixed price, Pf , results in supply contracting to Qs and demand contracting to Qd . A shortage of Qd – Qs is created with demand exceeding supply



40. Analyse three ways a government could encourage consumption of a merit good. (6)

A government could encourage consumption of a merit good by providing more information to people about the benefits they can gain from consuming it. For example, a number of governments run campaigns to overcome the information failure that exists about the benefits of eating fruit and vegetables.

A government could also subsidise production of the merit good. This would lower its price, which would increase people's ability and probably their willingness to buy the product. A third way is for the government to use regulation. It could make consumption compulsory. For instance, a number of governments make it illegal for parents not to send their children to school. This measure is sometimes combined with a subsidy that reduces the price to a low level or even to zero price.

41. Discuss whether or not consumers benefit more from a market economic system or a mixed economic system. (8)

Consumers may benefit more from a market economic system than a mixed economic system. Consumers are said to be sovereign in a market economic system. In theory, at least, they decide what is produced and signal their choices to producers through the price mechanism. If they want more of a product, they will bid up its price, which will encourage producers to supply more of it.

Consumers may also benefit from low prices and high quality if competition results in efficiency. To attract consumers, producers may have to keep prices low and to innovate. Due to the risk of market failure, however, consumers may benefit more from a mixed economic system. A government can finance the production of public goods.

In a market economic system, consumers would not be able to buy public goods. This is because private sector firms would have no incentive to produce them. They cannot prevent those not willing to pay for them from enjoying them. Consumers' choices will be affected by measures to encourage the consumption of merit goods and to discourage demerit goods. Some may dislike, for instance, taxes on high-fat foods and may argue that they know better than the government what is good for them. In the long run, however, these measures may change the pattern of consumer demand. Competition is not guaranteed to be present in a market. Consumers may benefit from the government in a mixed economy intervening to prevent private sector monopolies charging high prices. It may do this by regulating private sector monopolies or nationalising them.

State-owned enterprises may be more likely to base their production decisions on social rather than private costs and benefits. If this is the case, consumers may benefit from, for instance, less pollution. A government may also implement policies to promote factor mobility.

If labour, in particular, becomes more geographically and occupationally mobile, producers will be able to respond to changes in consumer demand to a greater extent. Poor consumers may benefit more from a mixed economic system than a pure market economic system. This is because they lack purchasing power and so will have little ability to influence and receive what is produced.

In a mixed economic system, some essential products may be heavily subsidised and they may receive benefits to increase their purchasing power. Of course, there is the possibility that products produced by state-owned enterprises may be of a low quality if the lack of competition and government funding reduces pressure on the enterprise to be efficient.

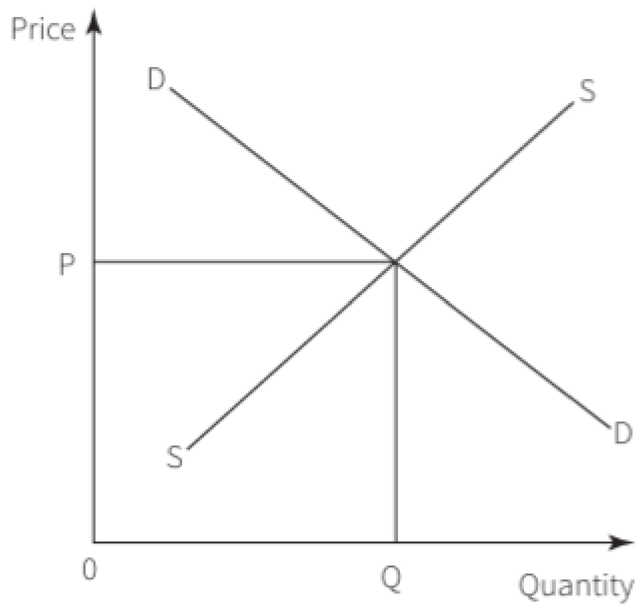
The government may also fail to estimate external costs and benefits accurately and so may over-tax or over-subsidise. Which type of economic system will benefit consumers most will be influenced by whether market forces or market forces combined with government intervention works more efficiently.

SECTION B QUESTIONS

1. Air-India is a state-owned airline. Most airlines are, however, in the private sector and the prices they charge move between equilibrium and disequilibrium as a result of changes in market forces. The price elasticity of demand for air travel differs from other forms of transport.

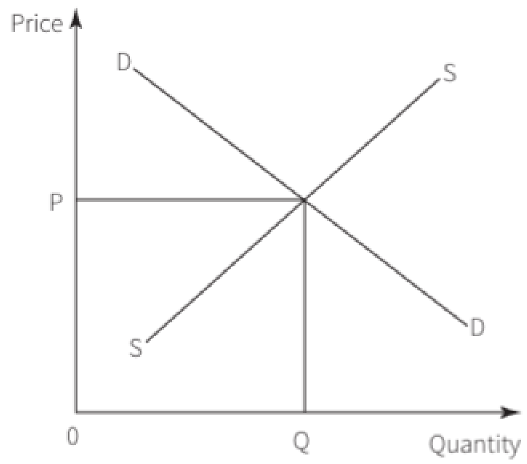
a) What is meant by market forces? (2)

Market forces are the interaction of demand and supply. Price will move to the equilibrium level. This is where demand and supply are equal, as shown below-

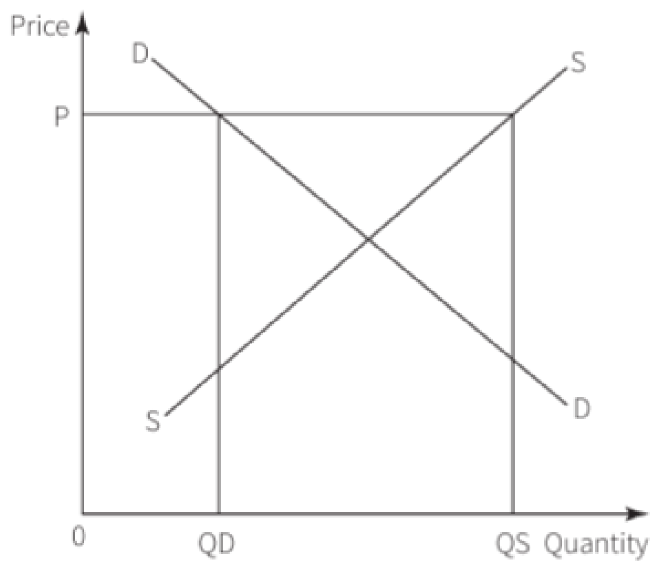


b) Explain the difference between an equilibrium price and a disequilibrium price. (4)

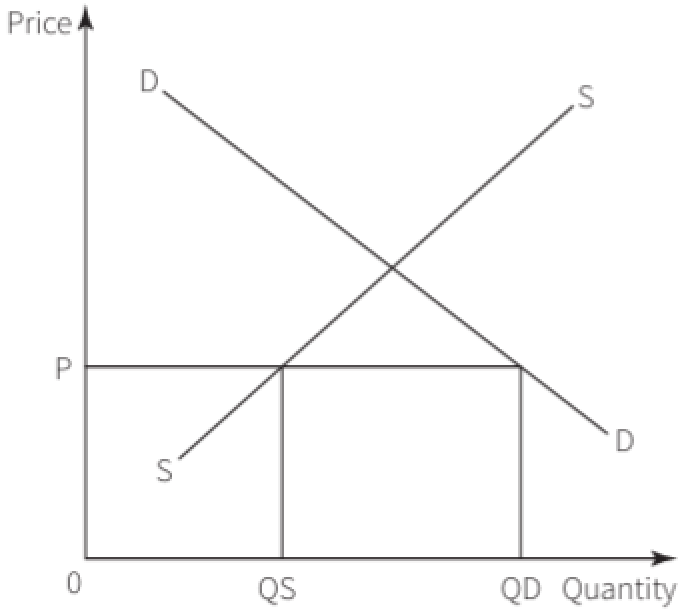
An equilibrium price is a price at which demand and supply are equal. In such a situation, there is currently no reason for a price change. Figure 10 shows that the equilibrium price is P since this is where the demand curve intersects the supply curve.



In contrast, a disequilibrium price is a price at which demand and supply are not equal. Figure 11 shows a price set too high initially. Here supply exceeds demand and there is a surplus of the product in the market. Market forces will push the price down until demand equals supply.



It is also possible, at least for a period of time, to have a disequilibrium price set below the equilibrium. Figure 12 shows that at a price of P, demand is greater than supply and there is a shortage. The excess demand will drive the price up to the equilibrium level.



c) Analyse why different products have different price elasticities. (6)

There are a number of reasons for different products having different price elasticities. The key reason is that some products have close substitutes, while others do not. A product that has close substitutes of a similar price will have elastic demand. A rise in its price will cause a greater percentage fall in demand, as consumers can easily switch to rival goods. In contrast, a product that has no close substitutes will have inelastic demand. If it becomes more expensive, demand will fall by a smaller percentage as either there is no alternative or the alternative is not affordable.

The other reasons for differences in price elasticities are whether the products are luxuries or necessities, the proportion of income spent on them, the flexibility to postpone their purchase and the extent to which the goods are habit-forming.

Luxury products usually have elastic demand. If they become more expensive, people may decide to do without them. A fall in their price will make them affordable to more people. Necessities, however, such as soap are less sensitive to price changes.

A product that takes up only a small proportion of income, for example a box of matches, is likely to have inelastic demand. A rise in price will not be very noticeable and will not alter the quantities bought by consumers significantly. On the other hand, if the price of a product takes up a large proportion of income then the price changes will probably cause the demand to alter by a greater percentage. People have to think carefully about whether they can afford to buy such products.

People will also be more sensitive to price changes if their purchases do not have to be made quickly. If some people are thinking about buying new cars or replacing existing cars that are running quite well, not only is the purchase likely to take up a large part of their income but they also do not have to buy them immediately. If their prices rise, they may decide to delay their purchase.

In contrast, demand for goods that have to be bought urgently usually have inelastic demand. If the roof on a house is damaged in a storm, it needs to be repaired immediately to prevent more damage. Even if the price charged by roof repairers rises, the occupants are likely to pay it.

Demand for products, such as cigarettes, that are habit-forming is also inelastic. A rise in the price of cigarettes will cause a fall in demand but by a smaller percentage. This is because smokers find it difficult to stop smoking and even to reduce the number of cigarettes they smoke. Some will stop, some will cut back but many are likely to continue to smoke the same number.

d) Discuss how useful knowledge of price elasticity is to an airline company. (8)

Knowledge of price elasticity of demand is significant to an airline company. It will help the company in its pricing strategy. If demand for flights on its planes is inelastic, it can raise revenue and profit by pushing up the price. Inelastic demand suggests that there are no close substitutes available.

If, on the other hand, demand is elastic, it is likely that the company faces some significant competition. In this case, the company has to think very carefully about raising the price of its flights. If rival companies do not increase their price, the company will lose market share. In fact, if demand is elastic, a rise in price will cause a fall in revenue and profit.

The company can, however, raise revenue by lowering price if demand is elastic. This is because demand will rise by a greater percentage than a fall in price. There is no point, however, in reducing price and raising demand unless the company has the ability to carry more passengers.

The price elasticity of supply of its flights is as important as the price elasticity of demand for them. If the company has no capacity in the form of spare seats on its planes, its supply will be perfectly inelastic.

If its supply is elastic, it will still have to consider whether the additional revenue received from selling more flights will be greater than the rise in costs experienced as a result of raising its output. If revenue does rise more than costs, the company will enjoy a rise in profit.

2.Gym membership is a normal good. More people throughout the world are joining gyms in a bid to get fitter. This change in demand is also affecting the demand for substitutes and complements to gym membership. In some countries gym membership is taxed. Some economists argue that rather than taxing gym membership, governments should subsidise it.

a Define a normal good. (2)

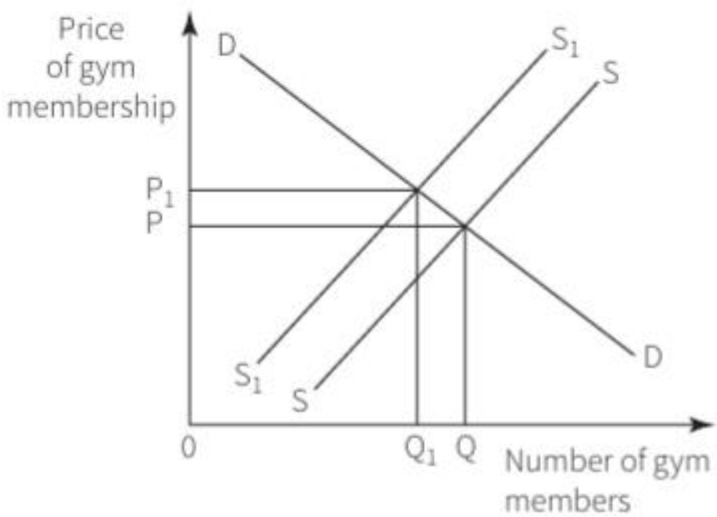
A normal good is a product that increases in demand when income increases. Most products, including gym membership, have this positive relationship.

b Explain the difference between a complement and a substitute. (4)

A complement is a product that is used with another one. For instance, some people put milk into their tea. In contrast, a substitute is used instead of another product. It is a rival product. People may switch from buying tea to buying coffee.

c Analyse, using a demand and supply diagram, the effect of introducing a tax on gym membership. (6)

A tax is an extra cost to firms supplying gym membership. The rise in the cost of production will cause a decrease in supply from SS to S1 S1 shown below-



The reduction in supply causes price to rise from P to P1 . The higher price, in turn, causes demand to contact from Q to Q1 .

d Discuss whether or not governments should subsidise gym membership. (8)

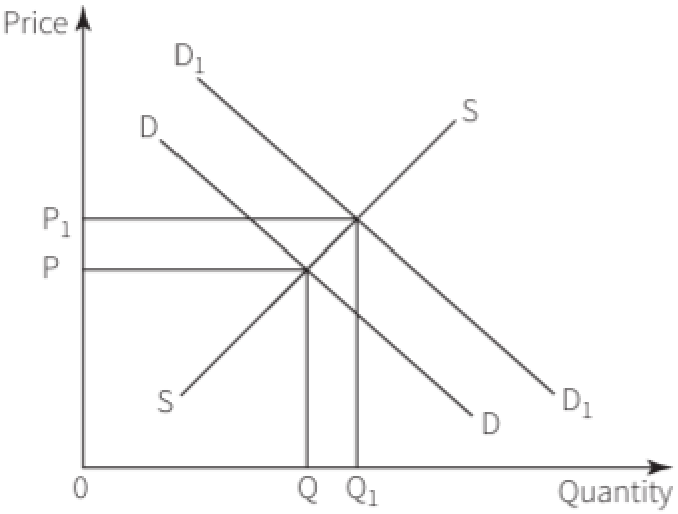
There are two main arguments for subsidising gym membership. These are that gym membership may be regarded as a merit good and because it is unfair that not everyone can afford gym membership.

Some people may not join a gym because they do not fully appreciate the private benefits they can gain from belonging. Going to the gym can increase people's fitness. This can result in them enjoying better health and living longer. It may also increase their promotion chances and earnings by reducing the time they have off work through illness and by increasing their productivity. In addition, people may enjoy the exercises they do.

Gym membership may generate external benefits. People who do not join a gym may benefit from those who do as result of an increase in the quantity and quality of products produced due to higher labour productivity. They may also benefit from a reduction in the cost, and possibly greater availability of public sector healthcare in the country.

If private benefits are undervalued and external benefits are ignored, not enough resources will be allocated to providing gym membership. It will be underconsumed and so underproduced. A subsidy would encourage more consumption by lowering price. Figure below shows a subsidy lowering price to P1 and causing sales to rise to Q1 .

As gym membership is seen as something of a luxury product in some countries, demand is relatively elastic and so a rise in supply may cause a significant rise in quantity demanded. The new quantity may be closer to the socially optimum level.


Price
D1
D
S
P1
P
S
D
D1
0
Q
Q1
Quantity