Good and a bad oil and petrol service economics essay



With reference to the case study, distinguish clearly between a good and a bad service.

Answer

A good service is customer oriented. In the case study companies such as Tesco, that offer blended petrol offer a good service. Blended petrol has a uniform price, is a renewable energy source, and reduces greenhouse gas emissions. On the other hand, companies offering petrol offer a bad service since the prices of fuel vary between regions and increases pollution.

Question 2. With reference to the production of either oil or bio-ethanol, explain the concepts of scarcity and opportunity cost.

Answer

The production of bio-ethanol requires resources such as corn, wheat, and maize. However, these resources are scarce, i. e. there are not enough of the resources to feed the US population and to produce bio-ethanol. Thus, the production or the non-production of bio-ethanol raises the issue of opportunity cost. The opportunity cost of production is the lack of corn, maize, and wheat to feed the population. The opportunity cost of non-production includes the lack of a clean atmosphere due to the consumption of oil, which is a pollutant.

Question 3. Explain why the price of petrol is generally higher in rural areas, such as North West Scotland, than in urban areas.

Answer

There is a higher demand for petrol in rural areas compared to the urban areas. The rural area people travel longer by car and are more reliant on the car compared to the urban populations. Additionally, the rural population is not dependent on the public means of transport as is the case in the urban areas. These factors increase the demand for petrol and thus its prices. An increase in demand drives up prices.

Question 4. Explain why the demand for petrol is price inelastic, whilst the cross-elasticity of demand for a brand of petrol is high.

Answer

Despite the price of petrol, people will use their cars. Thus, even doubling the price of petrol does not significantly affect the demand for petrol (Pindyck and Rubinfeld, 2008). This makes the demand for petrol price inelastic. Additionally, reducing the consumption of petrol requires significant changes such as driving less, purchasing a more fuel-efficient car, and using the public means of transport. However, the cross-elasticity of demand for a brand of petrol is high since the availability of petrol brands that are priced lower than petrol results to a shift in demand from petrol to the cheaper substitute. For instance, a reduction in the price of diesel would lead to a shift to diesel cars.

Question 5. a] Draw a fully labeled diagram to show the impact on the demand for petrol of an increase in the price of diesel fuel.

b] Clearly explain the impact on the demand for petrol of an increase in the price of diesel fuel.

Answer

The increase in price of diesel from P1 to P2 will result to an increase in the quantity demanded of petrol from Q1 to Q2. The increase in the price leads to a rise in the quantity demanded of the substitute good. Petrol and diesel are close substitutes and an increase in the price of diesel will lead to an increase in the quantity demanded of petrol. The price and quantity demanded of substitute goods have a direct relationship.

Question 6 a] Draw a fully labeled diagram to show the impact on the demand for diesel powered cars of an increase in the price of diesel fuel.

b] Clearly explain the impact on the demand for diesel powered cars of an increase in the price of diesel fuel.

Answer

Diesel and diesel powered cars are complimentary goods. For complimentary products, if the price of one commodity is increased, it results to the consumers demanding less of the complimentary good. Thus, an increase in the price of diesel fuel from P1 to P2 will result in a decline in the demand for diesel-powered cars from Q1 to Q2. The price and quantity demanded of complimentary goods are inversely correlated.

Question 7 a] Do you consider petrol to be a normal good or an inferior good?

Answer

Normal good

b] Explain your answer to question 7a].

Answer

The quantity demanded for normal goods increase with an increase in income (Mankiw, 2008). The quantity demanded for petrol is likely to increase once income increases and vise versa. An increase in income will lead to more people purchasing automobiles. This will lead to a higher demand for petrol. The income elasticity of demand for petrol is positive. Otherwise, if the quantity demanded for petrol declines with an increase in income, petrol would be an inferior good.

Question 8 a] Explain how an oil company might increase the supply of oil in the short-run.

Answer

The supply of oil is inelastic in the short-run because of the significant costs of production. Once an oil field has been constructed, the costs of running the field remain significantly the same irrespective of the capacity of operation. However, if the prices of oil increase in the short-run, the oil companies may increase the supply of oil since the marginal costs of production become insignificant.

b] Explain the impact on short-run costs of increasing supply in the short-run.

Answer

An increase in the supply of oil in the short-run leads to an increase in the marginal costs of production. The quantity of oil supplied in the short-run depends on the ability of the price increase to cover the marginal costs.

Question 9 Explain the profit maximizing output of a firm in the oil supply industry.

The firm maximizes its profit at the point where MC= MR. This implies that the firm will continue to increase its production of oil until the point where no more profits can be generated (Mankiw, 2008).

Question 10 a] Which market structure do you believe best describes petrol retailing in the UK.

Answer

Non-collusive oligopoly

b] Explain your answer to question 10a].

Answer

A small number of oil retailers characterize the market. The market is a high-volume, low profit margin implying that a variation in price by one firm affects the profitability of the other firms.

c] Identify one strategy that a petrol-retailing firm might choose when competing with other petrol retailing firms.

Answer

A reduction in prices

d] Explain the advantages and disadvantages of that strategy.

A small discount on the price that is offered by the other firms in the oligopolistic market will lead to an increase in the sales of the firm offering the discount. The disadvantage of the strategy is that the other firms in the market are likely to follow suit and reduce their prices. This leads to Bertrand-Nash equilibrium where the long-run outcome is that the entire market will suffer a reduction in prices (Krugman and Wells, 2004).

The firms can also compete on quantities. If a firm increases its quota of production, it will able to capture a larger market than the competing firms. However, it will lead to Cournot-Nash equilibrium when other firms adopt the same strategy (Krugman and Wells, 2004). An increase in prices reduces the prices in the market and firms suffer a reduction of prices.

The use of petrol as a fuel for cars generates market failure in the form of externalities.

Question 11a] Explain why ignoring the externalities can result in the overconsumption of petrol.

Answer

The consumption of petrol produces externalities such as pollution and traffic congestion. If these externalities are not included in the prices of petrol, the price of petrol will not reflect the total cost of production. Thus, in a

competitive market, the existence of un-priced externalities in the market will result in under pricing of oil and its subsequent overconsumption.

b] Explain how ONE policy instrument can reduce this market failure.

Market-based instruments are among the policy measures used for reducing market failures. The strategy employs pricing and other economic variables to offer incentives for the reduction of negative externalities. The method seeks to eliminate market failure caused by negative externalities by incorporating external costs of consumption and production. This is done through various means such as taxation, charges on products, establishing property rights, and establishing alternative markets for the consumption of environmental services.