Chapter 15

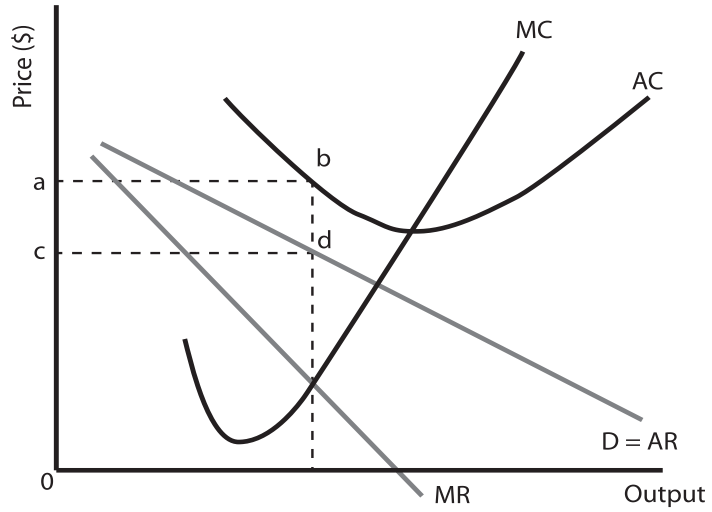
Theory of the firm – Monopolitic Competition *(HL only)*

Task 1 – Complete the missing words

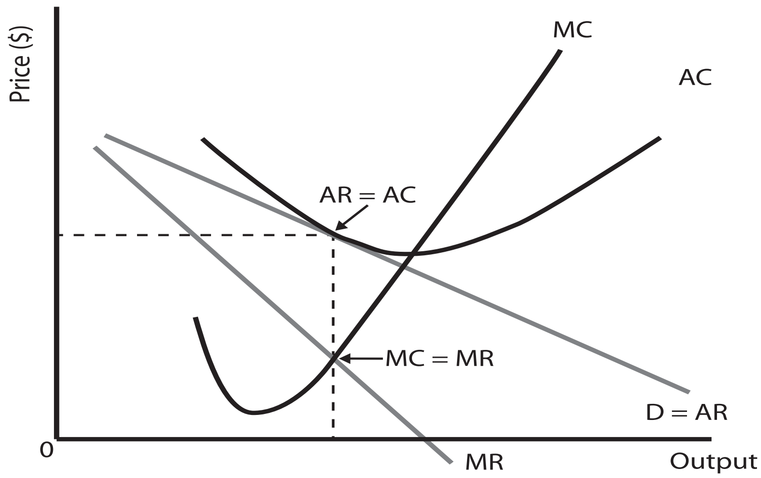
The model of monopolistic competition has three basic assumptions:

- There are a large number of relatively ………. firms, none of which have sufficient ………….. power to greatly affect its competitors
- There are very few, if any, ………….. to entry or exit from the industry
- All firms produce slightly ……………….. products.

The final assumption means that ……-…….. competition is a major feature in monopolistically competitive industries. Hence, the existence of ………. loyalty means that firms have, to a certain extent, control over the prices of their products. All firms face a downwards sloping ………….. curve, which is relatively price e………….. as there are many (albeit slightly differentiated) substitutes. Examples of businesses in such market structures might include: restaurants, hair salons and clothes retailers.



It is possible for monopolistically competitive firms to earn a profit or a loss in the short run, depending on the nature of its ……..…….. costs. For example, this diagram shows a ….. -making firm because at the profit maximizing (or the loss-minimising) level of output, average ………. exceed average ………….. (price). In the diagram, this is shown by the area abcd.



However, just like in perfect competition, any ………….. profits made by existing firms would attract new entrants due to the very low entry barriers. Similarly, any losses would result in a ………….. market supply as there are very few, if any, barriers to exit. Hence, under the model of monopolistic competition, only ………….. profit is made in the long run, as shown in the diagram.

In monopolistic competition, firms are neither allocatively efficient nor productively efficient in both the short run and long run (rather like in the model of ……..……..). Unlike a monopolist that is able to restrict ………….. and sets its price, inefficiencies occur in monopolistic competition due to the vast amount of consumer choice. Unlike in perfect competition, firms face a downward sloping demand curve because products are d…….……….., i.e. consumers have a variety of products to choose from.

Task 2 – Explain…

a. Why product differentiation leads to a negatively sloped demand curve in monopolistic markets (rather than a perfectly elastic demand curve as seen in perfectly competitive markets).

b. Two examples of non-price competition used by monopolistically competitive firms.

c. How firms in monopolistic competition differ from those in perfect competition.

d. How firms in monopolistic competition differ from monopolists.

Task 3 - True or False?

		True / False
a.	The demand curve of a monopolistically competitive firm is less price elastic than that of a perfectly competitive firm.	
b.	Firms in monopolistic competition supply differentiated, but similar products.	
c.	The monopolistically competitive firm maximizes profits when price is set equal to the marginal cost of production.	
d.	In the long run monopolistically competitive firms make normal profits because they operate at the minimum point on their average cost curve.	
e.	Firms in monopolistically competitive firms do not make any economic profit in the long run.	
f.	Non-price competition is a feature of both oligopoly and monopolistic competition.	

g.	An industry with a five-firm concentration ratio of 25 per cent is an example of monopolistic competition.	
h.	The use of trademarks and branding are common features of monopolistically competitive markets.	
i.	A monopolistically competitive firm has a highly price elastic demand curve, but less so than that of a perfectly competitive firm.	

Task 4 – Multiple Choice ☑

1. Which of the following is not a characteristic of firms operating under monopolistic competition?

   A. Imperfect knowledge
   B. Productively efficient in the long run
   C. Low barriers to entry and exit
   D. Price setters

2. The demand curve of a monopolistic competitive firm will be more price elastic when there is

   A. a larger number of firms in the industry
   B. a high degree of product differentiation
   C. time for customers to search for substitute products
   D. a lower number of rivals in the industry

3. Under the model of monopolistic competition

   A. Smaller firms in the industry face a perfectly price elastic demand curve
   B. Firms make normal profits in the long run
   C. Products are homogeneous due to the intensity of competition
   D. There are significant entry barriers to prevent new firms from entering the industry

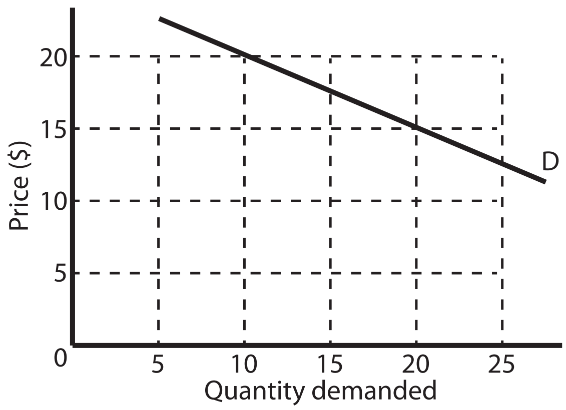
4. Effective product differentiation, through advertising and branding, will tend to make

   A. Demand more price inelastic
   B. Demand more price elastic
   C. Supply more inelastic
   D. Supply more price elastic

5. In monopolistically competitive markets

   A. Firms compete solely on product differentiation, branding and advertising
   B. A large number of competing firms produce differentiated products
   C. A large number of firms produce standardised or homogeneous products
   D. Many firms compete in an industry dominated by a few large firms

6. In the diagram below, the marginal revenue of the 20th unit of output is



A) $200
B) $100
C) $50
D) $10

7. Which of the following is not a characteristic of monopolistic competition?

A. A large number of competing firms
B. Mutual interdependence
C. Low entry barriers
D. Product differentiation

8. The model monopolistic competition assumes that

A. Allocative efficiency exists due to the large number of sellers and low entry barriers
B. Market power is highly concentrated
C. Firms will engage in non-price competition
D. Economic profit is earned in the long run

9. Which company is most likely to be classified as a monopolistic competitor?

A. H&M (clothing)
B. Brown's fishmongers (sole traders)
C. Apple (smartphones)
D. Greenpeace (non-government organization)

10. The short run profit-maximizing monopolistically competitive firm will set its price

A. Equal to marginal revenue
B. Equal to marginal cost
C. Above its marginal revenue
D. Above its marginal cost

11. The long run profit-maximizing monopolistically competitive firm must set its price

A. Equal to its marginal cost
B. Below its marginal cost
C. Above its average total cost
D. Equal to its average total cost

12. Which long-run condition holds true for firms in monopolistically competitive firms?

    A. P = MC
    B. MR > MC
    C. MC = MR
    D. MC = AC

13. Which of the following does not apply to monopolistic competition?

    A. Consumers have a wide variety of choice
    B. Heavy advertising expenditure
    C. Firms operate at full capacity in the long run
    D. Firms can make normal profit, a loss or abnormal profit in the short run

14. Identify the incorrect statement below

    A. Product variety is greater in monopolistic competition than in perfect competition
    B. Monopolistically competitive firms do not operate at the lowest point on their ATC curve because economies of scale are limited by product differentiation
    C. Products can be homogeneous or differentiated in monopolistically competitive markets
    D. Neither productive efficiency nor allocative efficiency can be achieved in monopolistically competitive markets in the long-run

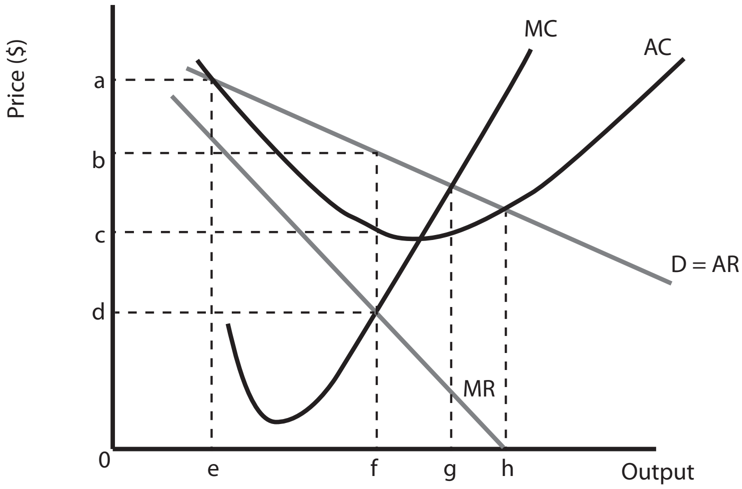
15. In the short run, a monopolistically competitive firm's profit

    A. is maximized at the output level where marginal revenue is zero
    B. can be positive (supernormal), negative (loss) or zero (normal)
    C. will always be zero due to relatively low barriers to entry
    D. is always positive as firms supply differentiated products

16. Which of the following statements apply to monopolistically competitive firms?

    A. In the long run, they operate at the lowest point on the average cost curve
    B. They are productively efficient only
    C. They are allocatively efficieny only
    D. They are neither productively efficient or allocatively efficient

Questions 17 – 20 refer to the diagram below



17. The monopolistically competitive firm's profit-maximizing price in the short run will be

A. 0a
B. 0b
C. 0c
D. 0d

18. The monopolistically competitive firm's profit-maximizing output in the short run will be

A. 0e
B. 0f
C. 0g
D. 0h

19. In the short run, the monopolistically competitive firm will make

A. A per unit loss of cd
B. A per unit loss of bd
C. A per unit profit of bc
D. A per unit profit of ad

20. What will occur in the long run, given the situation shown in the above diagram?

A. Firms will leave the industry, thereby forcing up the price
B. Firms will enter the industry, thereby forcing down the price
C. Average costs will fall as more firms enter the industry
D. Output will increase due to the intensity of competition

Chapter 16

Theory of the firm – Oligopoly *(HL only)*

Task 1 – Complete the missing words… ✍

An oligopoly is a market structure dominated by a few large suppliers with a high degree of market c…..…………….. Examples of such markets include petroleum, carbonated drinks producers and sports apparel. There are substantial entry barriers to the industry. H……………….. oligopolists supply products that are undifferentiated, such as steel or petroleum. By contrast, d……………….. oligopolists supply branded, differentiated products such as breakfast cereal or smartphones. The model of oligopoly assumes mutual i…….….………….., i.e. each oligopolistic firm considers the reactions of its rivals when determining its pricing policy. Restrictive ………….. ……………….. (RTPs) are strategies used by oligopolists to restrict competition in an industry. They tend to raise the price and/or reduce output, thereby causing a loss in ……………….. efficiency.

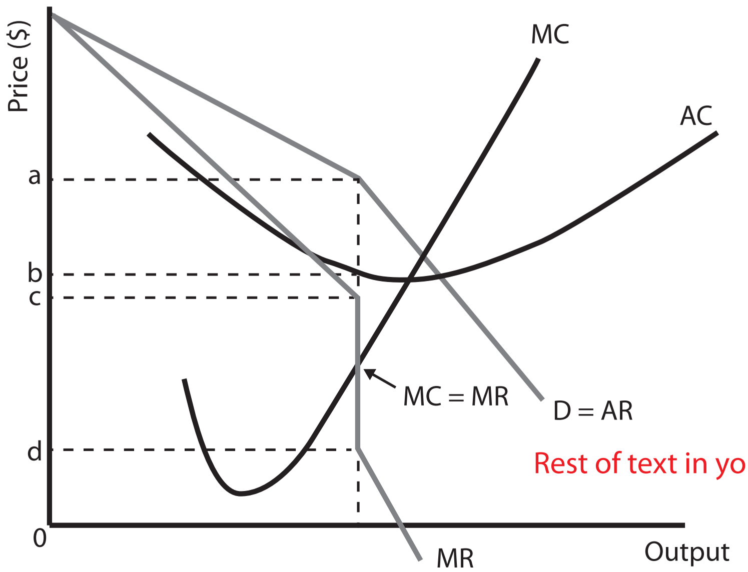
……………..…….. ratios measure the degree of market ………….. in a market by calculating the percentage of total sales accounted for by the largest firms in the industry. So, a four-firm concentration ratio of 75 means that the largest four firms in the market account for ….. % of the industry's sales. The higher the ratio, the more concentrated (oligopolistic) the market tends to be. The Herfindahl Index can be used to compare the degree of market power in an industry. For example, assume two industries both have a four-firm concentration ratio of 60% as follows, with the remaining 40% accounted for by 10 other firms:

- Industry A: the top 4 firms each account for 15% market share
- Industry B: the top 4 firms have a market share of 25%, 20%, 10% and 5%.

The Herfindahl Index for Industry A would be: ……………….. The Herfindahl Index for Industry B would be: ……………….. The higher the Herfindahl Index, the ………. concentrated the industry. This means that in the above case, industry …. is more oligopolistic than industry …..

……………….. oligopoly exists where firms agree to reduce the amount of competition by acting together as though they were a monopolist, e.g. agreeing to raise prices at the same time. Collusion is easier to achieve when a very small number of oligopolistic firms produce a homogeneous product, thereby acting as a monopolist. A ………….. usually occurs following a formal agreement between oligopolists to fix prices, thereby effectively acting as monopolists. The OPEC (Organization of Petroleum Exporting Countries) - an organization that attempts to limit the world supply of crude oil so as to raise its price - is probably the best known example of a cartel. Cartel structures tend to be difficult to maintain in the long run because individual firms (members) can find it profitable to cheat on agreements. In many countries such as the United States and the EU, cartels violate anticompetitive laws so are banned. …………….. ……………….. refers to implicit cooperation or secret conspiracies between oligopolists to set prices, perhaps by following the pricing strategy of the market leader. This often takes place because collusion and cartels are illegal, i.e. these are the unwritten rules of collusive behaviour (also known as i………….. *collusion* or *covert collusion*).

By contrast, ……-………….. oligopoly exists where firms in the industry act and compete independently. Price stability tends to exist in oligopolistic markets – rival firms would simply retaliate and match any price reduction. In extreme cases, this could even cause a ………….. …….... By contrast, a rise is price might not be followed by others as the relatively lower price can attract some of the competitor's customers. The kinked demand curve model explains price rigidity in oligopolistic markets.



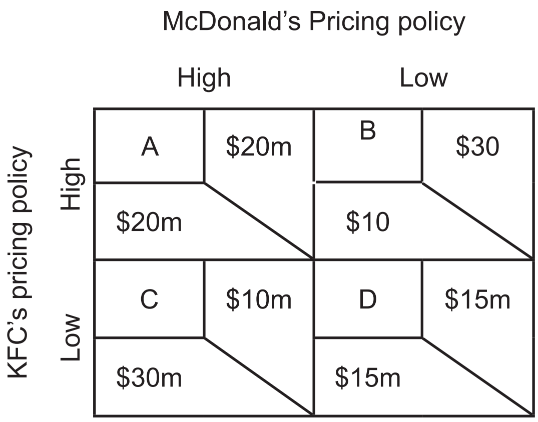
In this diagram, the profit maximising oligopolist supplies at the output level where MC = ... At this level of output, average costs are ..... whilst the price charged is ...... Thus the oligopolist makes .... profit.

Rest of text in your correction is in main text

Due to the interdependence and asymmetric nature of oligopolistic firms, a price hike is not followed by rivals whereas a price reduction is matched by competitors. Thus there is a kink in the demand curve at the price ...... The diagram shows that there is therefore price rigidity between the price levels …... and ......

One criticism of the kinked demand curve theory is that it ignores ....-…........... competition – a significant feature of oligopolistic markets. For example, supermarkets compete by branding (such as 'own label' products) and loyalty cards (to foster brand loyalty). .... oligopoly exists where a small number of large firms produce dissimilar goods in terms of product design and quality (such as Apple, Samsung and Nokia in the smartphone industry). This is markedly different to homogeneous oligopoly which exists when oligopolists produce or sell virtually .... products (such as BP, Shell and Exxon in the petroleum sector).

.... theory refers to a situation in which the outcome (also known as the payoff) of a player in a game depends on the actions of other players in addition to the action taken by the player. It is based on .... or more firms competing in an industry with each firm having incomplete information about the rivals' intentions. For example, if KFC decides to expand in Vietnam, the dominant strategy for McDonald's and Burger King is probably to go ahead with their expansion plans. If they do not then KFC will be likely to enjoy greater market share and profits. However, overseas expansion is relatively difficult and there is never a guarantee that the strategy will succeed. The Prisoners' .... can help to explain why price fixing agreements between oligopolists is likely to break down. The model shows that oligopolists can increase their profits through collusion rather than competing independently.



The above matrix shows the profits of McDonald's in the top right area of each decision (A – D), whilst the profits of KFC are shown in the bottom left area of each decision. If both firms follow a high price strategy, then both firms will make a .... million profit. However, if McDonald's opts for a high price strategy, KFC will gain .... million profit by adopting a .... price strategy. Knowing this, McDonald's is likely to opt for a low price strategy, in the hope that KFC would charge high prices (decision ......). Hence, independent decision making is likely to lead to individual losses, both firms gravitate to adopting a low price strategy (decision ......), with both companies earning $15 million profit. Although illegal in most parts of the world, collusion would mean that both firms opt for decision ......, thus earning an extra .... million each compared to independent decision making and direct competition. However, with collusion there is still the temptation for either firm to cheat by opting for a low price strategy (decisions B and C).

Task 2 – Vocabulary Quiz

Identify the correct key terms from the clues below. *Hint*: answers appear in alphabetical order.

Key term	Definition
	Formed when there is an official agreement between oligopolistic firms to fix prices and/or output, thereby gaining monopoly power.
	This is an agreement between two or more oligopolists to limit competition or to gain an unfair advantage, e.g. limiting output or price fixing. Such acts are usually illegal and therefore the agreements are undisclosed (secretive).
	This is a measure of the degree of market power within an industry by calculating the combined market share of the largest few firms in the industry.
	The theory that outlines how firms in oligopoly consider the actions of rival firms before deciding what to do, based on probable numerical outcomes.
	Theory that shows price rigidity in oligopolistic markets because rivals do not follow a firm that raises price but will match any price reduction.
	A pricing strategy often used in a collusive oligopoly to establish prices at a level that discourages new entrants from the industry.
	Type of competition that does not focus on price but product differentiation, e.g. branding, after-sales care and packaging.
	This form of collusion occurs when two or more firms implicitly agree on restrictive trade practices such as price cutting, price leadership, or excessive advertising.

Task 3 – Explain… 🗎

a. Two examples of non-price competition, with the use of appropriate examples.

b. Two examples of restrictive trade practices (RTP).

c. Three assumptions or features of oligopoly.

d. Why there is a tendency for firms in a cartel to compete.

e. What it means by an industry having a "four-firm concentration ratio of 83%".

f. One reason why branding and advertising might enhance economic efficiency, and one reason why they might hinder economic efficiency.

Task 4 - True or False? 👍 👎

		True / False
a.	Firms in a cartel act collusively.	
b.	The kinked demand curve theory suggests that oligopolistic firms do not tend to engage in price competition.	
c.	Oligopolistic firms act independently of each other.	
d.	Oligopolistic firms make asymmetric decisions based on imperfect knowledge.	
e.	A cartel is most likely to be successful when there are a few dominant producers of a standardised product.	
f.	According to the kinked demand curve theory, the price elasticity of demand is relatively price inelastic in response to a fall in price.	
g.	Product branding is a key feature of oligopolies.	
h.	Oligopolists engage in both price and non-price competition.	
i.	Oligopolistic markets feature a few dominant firms producing either a differentiated or a homogeneous product.	
j.	If an oligopoly is faced with a kinked-demand curve, total revenue will fall if it either increases or decreases price.	

Task 5 – Multiple Choice ☑

1. Which of the following does not necessarily apply to oligopolistic markets?

   A. A small number of firms
   B. Barriers to entry
   C. Product differentiation
   D. Non-price competition

2. The resources used in the production process are collectively known as

   A. Human capital resources
   B. Raw materials
   C. Working capital
   D. Factors of production

3. The four largest firms in industry A produce 40% of the industry's output. In industry B, the four largest firms account for 60% of the industry's sales. It can therefore be concluded that

A. Firms in industry A are larger than those in industry B
B. Firm in industry A are less profitable than those in industry B
C. The concentration ratio is higher in industry B than in industry A
D. There is a better chance of survival for firms in industry B than in industry A

4. Oligopoly can be best described as a market structure where

A. A large number of small firms produce similar products
B. Several firms compete with each other
C. A small number of firms dominate the industry
D. Several large firms use price competition

5. Which of the following is not a feature of oligopolistic markets?

A. Collusion
B. Asymmetric information
C. Product differentiation
D. Price competition

6. The kinked demand curve theory assumes that

A. Firms engage in price fixing
B. Rival firms will not react to a fall in price
C. Rival firms do not follow if price is increased
D. Firms compete mainly on price competition

7. A weakness of the kinked demand curve theory is that it fails to

A. Identify how the initial price was determined
B. Explain price rigidity in oligopolistic markets
C. Show the different price elasticities of demand following a change in price
D. Demonstrate the asymmetric behaviour of oligopolistic firms

8. What is the name given to the practise of a price fixing and/or quantity fixing agreement under oligopoly?

A. Cartel
B. Collusion
C. Game theory
D. Price rigidit

9. In game theory, it is assumed that firms

A. Compete on non-price competition
B. Consider the actions of competitors before deciding on their strategy
C. Collude as a cartel to maximise their profits
D. Act independently of rival firms

10. Collusion in a market or industry is most likely to be successful when

    A. Demand is fairly price elastic
    B. Products are highly differentiated
    C. Market demand is cyclical
    D. There are high entry barriers

11. In an oligopolistic market

    A. One or two large firm dominant the industry
    B. The largest firms account for 25 per cent or more market share
    C. Firms compete on price
    D. Products can be standardised or differentiated

12. Firms in oligopolistic markets are said to be interdependent because

    A. The products of competitors are homogeneous
    B. The products of firms in oligopoly are differentiated
    C. Firms engage in price competition
    D. A small number of firms produce a large proportion of the output in the industry

13. Which of the industries below is most likely to be oligopolistic?

    A. Commercial banking
    B. Men's clothing
    C. Fruit and vegetable vendors
    D. Florists

14. If industries X and Y both have a four-firm concentration ratio of 75%, but the Herfindahl index for industry X is 1,000 and in industry Y is 1,200, it can be deduced that there is

    A. Greater market power in industry X than in industry Y
    B. Greater market power in industry Y than in industry X
    C. Greater competitiveness in industry Y than in industry X
    D. Greater efficiency in industry X than in industry Y

15. If four firms in an industry each have 25% market share, the value of the Herfindahl Index is

    A. 625
    B. 1,000
    C. 2,500
    D. 4,000

Questions 16 – 17 refer to the data below.

Firm	Market share (%)
V	30
W	20
X	25
Y	10
Z	15

16. The four-firm concentration ratio for the above industry is

    A. 100 per cent
    B. 90 per cent
    C. 85 per cent
    D. 20 per cent

17. The Herfindahl Index for the above industry is

    A. 1,000
    B. 2,025
    C. 2,150
    D. 2,250

18. The kinked-demand curve theory assumes that

    A. Competitors will match both a price cut and a price increase
    B. Competitors will follow a price cut but will overlook a price increase
    C. There is asymmetric information in oligopoly
    D. There is collusion in oligopoly

19. The kinked-demand curve diagram portrays

    A. Price competition under oligopoly
    B. Collusive oligopoly
    C. Non-collusive oligopoly
    D. Game theory under oligopoly

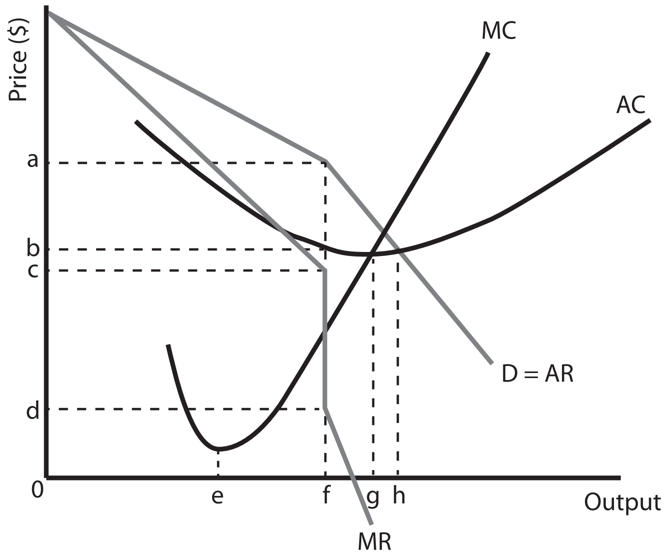
20. The primary goal of a cartel is to

    A. Minimise competition between member firms of the cartel
    B. Intensify competition in oligopolistic markets
    C. Enjoy supernormal profits
    D. Eliminate cheating in oligopolistic markets

21. A cartel is more likely to succeed if

    A. Firms sell a differentiated product
    B. The cost and revenue curves of rivals are very similar
    C. There are a large number of competing firms involved
    D. The price elasticity of demand is high

Questions 22 – 25 refer to the following kinked demand curve diagram:



22. Equilibrium output for the oligopolist is at

A. 0e
B. 0f
C. 0g
D. 0h

23. The price charged by the profit maximising oligopolist would be

A. 0a
B. 0b
C. 0c
D. 0d

24. The per unit profit made by the profit maximising oligopolist is

A. ab
B. bc
C. cd
D. ac

25. Price rigidity is shown by the price range

A. ab
B. bc
C. cd
D. ac

Chapter 17

Theory of the firm – Price discrimination *(HL only)*

Task 1 – Complete the missing words…

………… …………………..…… occurs when the same product is sold at different prices to different customers, e.g. student tickets compared to adult fares for cinemas, theatres, airlines, theme parks and public transport. This occurs despite there being no differences in the cost of providing the product to the different groups of consumers. By contrast, ………… …………………..…… occurs when different prices are charged for the same product due to different costs of production, e.g. a can of Coca-Cola from 7-Eleven compared to the same drink sold in an expensive hotel. Three conditions are necessary for effective price discrimination:

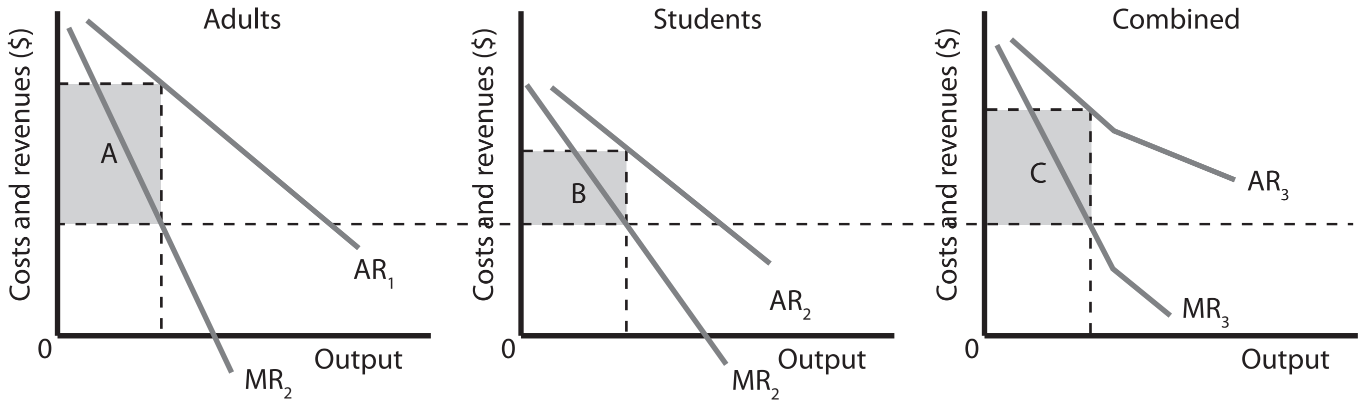
1. The supplier must be a price-………, i.e. it must have some degree of …………………..…… power.
2. There must be different groups of buyers with different ………… ………………..…… of ………… (PED) for the product, i.e. different groups of customers have different willingness to pay for the product.
3. There must be a …………..… of the market, i.e. price discrimination only works if the supplier can prevent one group of customers reselling the product to other groups of customers.

There are three categories of price discrimination:

………… degree price differentiation, also known as perfect price discrimination, occurs when a firm get the individual consumer to pay the maximum price that s/he is willing and able to pay for that product. Hence, the firm earns the highest possible profits by eliminating any consumer surplus. Examples include second-hand car dealerships, painter and decorators and lawyers who all try to remove consumer surplus as far as possible.

………… degree price differentiation occurs due to the quantity sold (rather than based on differentiating between consumer demographics or income levels). Customers who buy in larger quantities (bulk buyers) enjoy larger price discounts. For example, customers who buy 'multipacks' in supermarkets pay a lower unit price. This discriminates against those who purchase in smaller units, such as those who live alone, old-age pensioners and university students. Utilities companies such as water suppliers also tend to use this form of price discrimination.

………… degree price discrimination, the most common form of price discrimination, occurs when a different price is charged to different customer segments due to their varying degrees of ……… elasticity of demand. Providers of public transport services, airline carriers and hotels often use this form of pricing for peak and off-peak travel. This form of price discrimination requires the firm to be able to separate the customer segments and to be able to prevent one customer segment from reselling to another segment. It is also easier to achieve if the marginal cost of output is ……… For example, cinemas charge adults higher prices than students, children and pensioners (who have a ………… price elasticity of demand). This helps the cinema to gain revenue from customers who might not be able or willing to buy tickets at the standard rate. In the diagram below, adults have a ………… PED for movie tickets than students so the cinema can gain a greater surplus by using price discrimination (shown by the shaded areas A and B) – which is larger than the surplus if the cinema combined the markets by charging a single price (shown by shaded area C):



Task 2 – Explain why…

a. First class air travel is not a clear example of price discrimination.

b. Two examples of how themes parks such as Disneyland and SeaWorld® use price discrimination.

Task 4 - True or False?

		True / False
a.	Firms must have some degree of market power to use price discrimination.	
b.	Price discrimination results in consumers with relatively price elastic demand to purchase more than if a single price is charged to all consumers.	
c.	Buyers charged different prices must be physically separated for price discrimination to succeed.	
d.	Price discrimination is anti-competitive so banned in many parts of the world.	

e.	Industrial customers that are able to purchase huge quantities enjoy the benefits of second degree price discrimination.	
f.	The ability to earn economies of scale is essential for firms to enforce price discrimination.	
g.	Third degree price discrimination focuses on customer segments or consumer groups, rather than on the quantity they buy.	
h.	First degree price discrimination eliminates consumer surplus by charging each customer a different price.	
i.	Consumers cannot benefit from price discrimination.	
j.	A firm that is able to use first degree price discrimination supplies output at the level where Price = Marginal Cost.	

Task 5 – Multiple Choice ☑

1. Real estate agents who earn commission based on the price of the property they sell are likely to use which pricing strategy?

   A. First degree price discrimination
   B. Second degree price discrimination
   C. Third degree price discrimination
   D. Price differentiation

2. Which of the following applies to first degree price discrimination?

   A. A single price is charged to all of customers
   B. Price is based on the maximum amount that individuals are willing to pay
   C. Different prices are charged depending on how frequent the customer makes a purchase
   D. Different prices are charged to different customer groups

3. Which statement best describes second degree price discrimination?

   A. Different buyers with different demand elasticities that purchase different quantities of a product
   B. Different types of buyers with different demand elasticities due to time, such as peak travel
   C. Price discrimination caused by differences in ability and willingness to pay
   D. Providing customers with a free product, although the paid-for version is far more superior

4. Which of the following is not an example of second degree price discrimination?

   A. "Buy two, get one free" special deals at supermarkets
   B. Customer loyalty and rewards programmes at book retailers
   C. Frequent flyer mileage loyalty schemes from airlines
   D. 'Happy hour' discounts at bars and restaurants

5. Which of the following is not an example of third degree price discrimination?

   A. Child and adult fares on airlines
   B. Family tickets at theme parks
   C. Early bird discounts at restaurants
   D. Peak and off-peak airline travel

6. Which statement best describes third degree price discrimination?

   A. Different buyers with different demand elasticities paying different prices
   B. Higher prices being charged to consumers with higher elasticity of demand
   C. Different prices being charged to different consumers due to differences in ability and willingness to pay
   D. Charging customers with a preferential price to encourage consumption

7. Which statement does not explain why consumers can benefit from price discrimination?

   A. Firms increase output to lower-income households
   B. The welfare loss associated with monopolies is reduced
   C. Greater economies of scale can be enjoyed
   D. Competitive markets are more efficient than monopolist ones

8. If a firm charges customers $100 for the first unit purchased, and $90 for each additional unit purchased, this pricing strategy is known as

   A. First degree price discrimination
   B. Second degree price discrimination
   C. Third degree price discrimination
   D. Revenue maximization

9. If the price elasticity of demand for a product in consumer market A is -0.5 and in consumer market B is -1.2, a price discriminating firm will charge

   A. A higher price in market A
   B. A higher price in market B
   C. The same price in both markets
   D. A lower price in market A than in market B

10. Which of the following conditions applies to a profit maximising firm that uses third-degree price discrimination in two consumer markets (market A and market B)?

   A. $MR_A = MR_B$
   B. $MR_A = MR_B = MC$
   C. $P_A = P_B = MC$
   D. $P_A = P_B = MR_A = MR_B$