Market Structures Pack

Mr Traynor©

Economics
Pack 3 • Leaving Cert

JT Economics

The Business Guys

Short Questions

1) 2018 Q1

The firm in perfect competition is a **'price taker'**.

(a) Explain this statement.

_____

_____

_____

(b) Other than price taking, outline **two** characteristics of a perfectly competitive market.

(i) _____

_____

(ii)_____

_____

(16 marks)

2) 2018 Q9

(a) Define the term **price discrimination.**

Definition: _____

_____

_____

(b) Outline **three** conditions necessary for price discrimination to occur.

(i) _____

_____

(ii)_____

_____

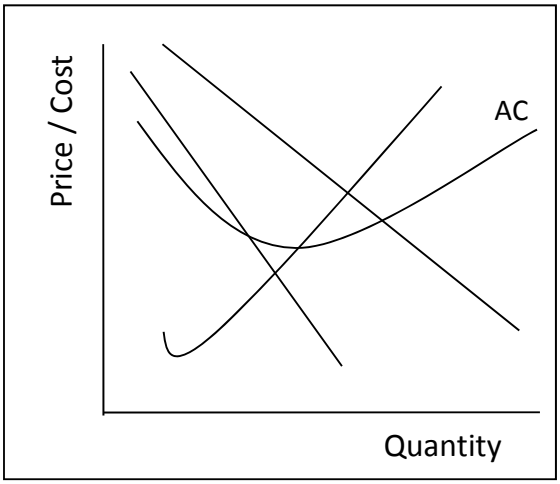
(iii) _____

_____

(17 marks)

3) 2017 Q6

The diagram below shows a firm operating under conditions of **Monopoly**.
(a) Label the lines/curves in the diagram and (b) Use the diagram to explain the **long run equilibrium position** for a firm in Monopoly.



Explanation:

(i) _____

(ii) _____

(iii) _____

(iv) _____

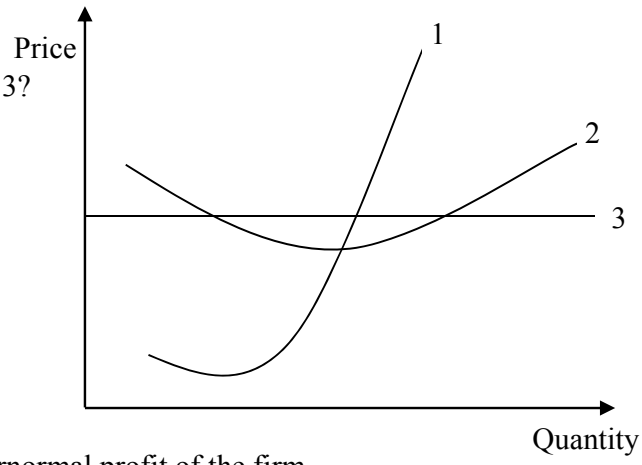
(17 marks)

4) 2016 Q1

The diagram below shows a firm operating under conditions of **perfect competition** in the short run.

(a) What is represented by the lines numbered 1 to 3? Use the answer box provided.

Number	Name
1	
2	
3	



(b) (i) Show clearly on the diagram the total supernormal profit of the firm.

(ii) Explain the term **supernormal profit**_____

_____

(16 marks)

5) 2015 Q4

A high concentration ratio is a key feature of an Oligopolistic Market.

(a) Explain this statement and give **one** example.

_____

_____

_____

(b) Outline two ways oligopolists behave in the market:

(i) _____

_____

(ii) _____

_____

(16 marks)

6) 2014 Q5

State **three** assumptions/characteristics underlying the theory of monopoly.

(i) _____

(ii) _____

(iii) _____

(16 marks)

7) 2013 Q4

(a) Collusion may be a feature of an oligopolistic market. Explain what is meant by 'collusion'.

_____

_____

(b) Collusive practices may be undermined by price wars. Outline **two** benefits of price wars for the consumer.

(i) _____

(ii) _____

(16 marks)

8) 2012 Q8

'Imperfect Competition is wasteful of resources'. Do you agree with this statement? Yes /No
Explain your answer.

_____

_____

_____

(17 marks)

9) 2011 Q3

Name the market structure (Perfect Competition, Imperfect Competition or Monopoly) to which each statement below is most likely to apply:

	STATEMENT	MARKET STRUCTURE
(i)	The firm has a perfectly elastic demand curve.	
(ii)	The product of the firm is unique.	
(iii)	Restaurants could be an example of this market structure.	
(iv)	Average costs of the firm are at a minimum.	

(16 marks)

10)2010 Q4

Define the term 'non-price competition'. State **two** examples.

Definition: _____

_____

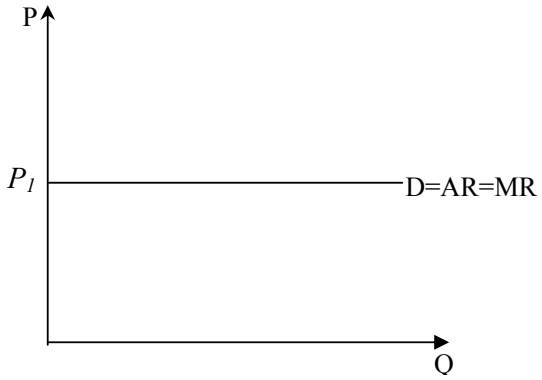
Example 1: _____

Example 2: _____

(16 marks)

11)2009 Q2

The diagram below represents the demand curve facing a firm in Perfect Competition.



This demand curve is; **(✓ correct answer)**

- Unitary Elastic ☐
- Perfectly Inelastic ☐
- Perfectly Elastic ☐

State the reason for your choice:

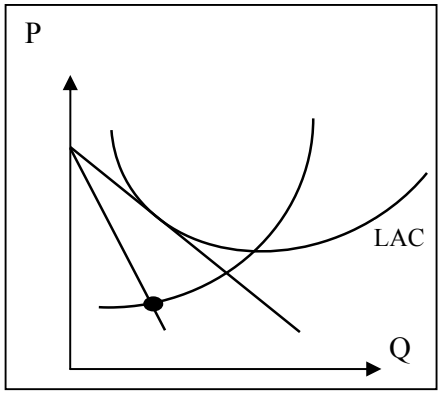
_____

_____

(16 marks)

12)2008 Q8

The diagram below represents the long run equilibrium of a firm in imperfect competition, which seeks to maximise profits. Label the diagram and use it to describe the long run equilibrium position for a firm in Imperfect Competition.



Description:

(i) _____

(ii) _____

(iii) _____

(iv) _____

(17 marks)

13) 2007 Q4

Firms attempting to enter a **monopoly** market must overcome barriers to entry.
Outline **THREE** such barriers to entry.

(i) _____

(ii) _____

(iii) _____

(16 marks)

14)2006 Q7

Define **price discrimination.** State **TWO** conditions under which it would be possible for a firm to price discriminate.

Definition: _____

_____

Condition (i): _____

Condition (ii): _____

(17 marks)

15)2005 Q7

"When a firm produces at a level of output at which marginal cost is greater than marginal revenue the firm is maximising profit (or minimising losses)". **True/False**
(Place a circle around your choice and write a one-sentence explanation of your answer).

_____

_____

(17 marks)

16)2004 Q4

Identify **FOUR** features of an oligopolistic market**.**

(i) _____

(ii) _____

(iii) _____

(iv) _____

(16 marks)

17)2002 Q5

Outline **TWO** benefits to consumers of **<u>non-price competition</u>**.

(i) _____

(ii) _____

(16 marks)

18)2001 Q5

Identify **TWO** means by which semi-state companies which are monopolies could be made operate more cost effectively.

(i) .....

(ii) .....

(16 marks)

Long Questions

2018 Q2

(a) *An oligopoly is a market structure in which a few firms dominate the market.*

(i) Describe how firms in this market structure compete with each other.

(ii) Discuss the advantages and disadvantages of oligopoly as a market structure. [30]

(b) (i) Explain, using a clearly labelled diagram, the long-run equilibrium of a firm operating under oligopoly conditions.

(ii) With reference to the 'kinked' demand curve drawn in part (i) above, explain the rationale for **'price rigidity'**. [25]

(c) '*Motor insurance providers in Ireland targeted in anti-cartel inquiry.*'

(**Source**: *The Irish Times*, July 2017)

(i) Explain the likely effects on consumers if collusion (e.g. cartel agreement) existed in the motor insurance industry.

(ii) Suggest **two** measures the government could consider to discourage anti-competitive practices in industry. Explain your answer. [20]

[75 marks]

2017 Q2

(a) (i) Show, by means of **two** separate labelled diagrams, the **short run** and **long run** equilibrium positions of a profit maximising firm in **perfect competition.**

(ii) Compare the short run equilibrium position with the long run equilibrium position of a perfectly competitive firm under the following headings:

- Price and Output
- Profits
- Efficiency. [35]

(b) The table below shows data for a perfectly competitive firm in equilibrium.

Average Revenue (€)	Average Variable Cost (€)	Average Total Cost (€)
50	40	60

(i) Using your knowledge of perfect competition, what is the marginal revenue earned by this firm? Explain your answer.

(ii) Should this firm continue in business? Explain your answer. [20]

(c) Bord Bia reported the total value of the Artisan Food market to be growing strongly, leading to more firms entering the industry. (Bord Bia defines Artisan Food as being "high-quality, distinctive and produced in small quantities", e.g., farmhouse cheeses, breads etc.)

(i) State a market structure which most closely reflects this situation, giving reasons for your answer.

(ii) Explain the shape of the demand curve of a firm in this market structure. [20]

[75 marks]

2016 Q2

Cadbury, Mars and Nestlé dominate the chocolate industry in the European Union.

(a) (i) State a market structure which most closely reflects the situation above, giving a reason for your answer.

(ii) Outline **two** other key characteristics of this market structure.

(iii) Explain, with the aid of a labelled diagram, the likely shape of the demand curve in this market structure.

[35]

(b) (i) If a large US chocolate manufacturer entered the EU chocolate market, outline the possible economic impacts of greater competition in this market.

(ii) Outline **two** factors which could make it difficult for this US chocolate manufacturer to enter the EU chocolate market.

[25]

(c) Explain why small firms succeed in some markets while other markets are dominated by large firms.

[15]

[75 marks]

2015 Q2

(a) (i) State and explain **two** examples of barriers to entry facing firms wishing to enter a monopoly market.

(ii) Explain, with the aid of a diagram, the long run equilibrium position of a monopolist. Identify on your diagram the profit the monopolist makes. (35)

(b) *A monopolist can increase its profits by engaging in price discrimination.*

(i) Explain the concept *price discrimination*, using a suitable example.

(ii) State and explain the market conditions necessary for price discrimination to take place. (25)

(c) *The Commission for Energy Regulation (CER), Ireland's independent energy regulator, has been appointed as the independent economic regulator for Ireland's public water services.*

Discuss whether or not Irish Water (Uisce Éireann), Ireland's new water utility company, should be regulated. (15)

[75 marks]

2014 Q2

(a) (i) State and explain **three** assumptions underlying the theory of imperfect competition.

(ii) Explain why a firm's demand curve under imperfect competition differs from a firm's demand curve under perfect competition. (25)

(b) (i) Explain, with the aid of a diagram, the long run equilibrium of a firm in imperfect competition.

(ii) With reference to your diagram in (b) (i) explain why the firm is not making socially efficient use of scarce resources. (30)

(c) "A few large retailers (e.g. Tesco, SuperValu, Dunnes Stores, Aldi, Lidl) dominate the Irish grocery market at present."

Suggest a market structure which most closely reflects this situation. Explain your answer. (20)

[75 marks]

2013 Q2

(a) Technology companies such as Apple and Samsung are currently involved in legal disputes regarding patents on various aspects of their smartphones. When a company wins a patent dispute it may become the sole producer using the patented technology.

(i) Explain **three** barriers to entry, other than patents, that can exist in business.
(ii) Outline **two** reasons why monopolies may not be in the public interest.

(25)

(b) Explain, with the aid of a diagram, the long run equilibrium position of a monopoly firm.

(25)

(c) The global market for toothpaste products can be described as an imperfectly competitive market, where firms engage in competitive advertising and branding.

(i) Explain the term 'competitive advertising'.
(ii) Outline, using an example, how advertising can be used to prevent small firms entering an industry.
(iii) State and explain **two** possible disadvantages of advertising for the consumer.

(25)

[75 marks]

2012 Q2

(a) (i) Explain the reason for the shape of the demand curve of an individual firm in perfect competition.
(ii) Outline **two** advantages of perfect competition. (20)

(b) (i) Explain, with the aid of a labelled diagram, the equilibrium position of a firm in **short run perfect competition.**
(ii) With the aid of labelled diagrams, explain the impact which the entry of new firms would have on the market **and** on the equilibrium position of the firm. (35)

(c) Contrast the characteristics of perfect competition with monopoly under the following headings:

- Barriers to entry;
- Profits in the long run;
- Economies of scale;
- Price discrimination. (20)

[75 marks]

2011 Q2

(a) *Some Telecoms' analysts believe the main mobile operators in Ireland – Vodafone, O2, Meteor and 3 – control an oligopoly and have little reason to make the market really competitive.* *(The Irish Times, November, 2010)*

(i) Outline **three** key features of an oligopolistic market.

Firms in an oligopolistic market may have objectives other than profit maximisation.

(ii) Outline **two** objectives firms in oligopoly may have, other than achieving the maximum level of profits. *(25)*

(b) Using **one** clearly labelled diagram:

(i) Explain the shape of the 'kinked' demand curve facing a firm in oligopoly.
(ii) Explain the long run equilibrium position of this firm. *(25)*

(c) It is suggested that consumers prefer price competition in the market place, yet there are benefits for consumers arising from non-price competition.

(i) Explain **two** reasons why consumers may prefer price competition.
(ii) Describe **two** benefits to consumers of non-price competition.

(25)

[75 marks]

2010 Q2

(a) (i) State and explain **three** assumptions underlying the theory of monopoly.
(ii) Outline **two** possible advantages of monopoly as a market structure.

(25 marks)

(b) Iarnród Eireann (Irish Rail) is the state monopoly in the provision of rail transport in Ireland. It operates a system of <u>price discrimination</u> in setting some of its prices.
(i) Explain the underlined term, giving **one** example as practiced by Iarnród Eireann.
(ii) State and explain **three** conditions necessary for price discrimination to take place.

(20 marks)

(c) Using suitably labelled diagram(s), **compare** the long run equilibrium position of the monopoly firm with that of a perfectly competitive firm (assuming both operate under the same cost conditions) under the following headings:

- Price and Output;
- Profits;
- Efficiency. *(30 marks)*

[75 marks]

2009 Q2

(a) (i) State and explain the assumptions underlying the theory of **imperfect competition**.
(ii) Outline the advantages imperfect competition may offer consumers.

(30 marks)

(b) Explain with the aid of a diagram in **each** case the conditions for a profit maximising firm to be in equilibrium under imperfect competition:
(i) in the short run;
(ii) in the long run.

(30 marks)

(c) 'Major food retailers in the Irish market, such as Aldi, Dunnes, SuperValu and Tesco operate under conditions of Imperfect Competition'.

Do you agree with this statement? Give reasons for your answer, referring to major food retailers in the Irish market mentioned above.

(15 marks)
[75 marks]

2008 Q2

(a) Explain, with the aid of a diagram, the long run equilibrium position for a monopoly firm which seeks to maximise profits.

(25 marks)

(b) **(i)** Define price discrimination.
(ii) Explain **three types** of price discrimination, using suitable examples in each case.

(20 marks)

(c) **(i)** State and explain **three** barriers to entry facing entrants to a monopoly market.
(ii) **Deregulation** of markets (i.e. allowing more suppliers of a good or service into the market) is a continuing development in the Irish economy e.g. energy, mobile phones, transport etc.

Explain how deregulation could affect:
(i) Consumers of the good/service;
(ii) Employees in the industry;
(iii) Profits of existing firms.

(30 marks)
[75 marks]

2007 Q2

(a) **(i)** A firm operating under conditions of perfect competition is a '**price taker**'. Explain the concept of being a 'price taker'.

(ii) Explain, with the aid of a labelled diagram, the equilibrium position of a firm in **short run perfect competition.**

(25 marks)

(b) With the aid of a labelled diagram(s), explain the impact which the entry of new firms would have on the market **and** on the equilibrium position of this firm.

(25 marks)

(c) **(i)** Many firms today engage in **product differentiation**. Explain this underlined term showing, with suitable examples, how it can be achieved.

(ii) Explain the effect of product differentiation on the AR and MR curves of a firm, which previously operated under conditions of perfect competition.

(25 marks)
[75 marks]

2006 Q2

(a) State and explain **THREE** key features of an **oligopolistic market**.

(15 marks)

(b) With the aid of **ONE** clearly labelled diagram:

(i) Explain the shape of the 'kinked demand curve' under oligopoly.
(ii) Explain the long run equilibrium position of a firm facing a 'kinked demand curve'.
(iii) Explain what is meant by the term 'rigidity of prices' under a 'kinked demand curve'.

(35 marks)

(c) **(i)** Explain **THREE** types of collusion which may occur in an oligopolistic market.
(ii) Do you believe that the Irish retail market for banking services (e.g. personal current accounts.) operates under oligopolistic conditions? Explain your answer.

(25 marks)
[75 marks]

2005 Q2

(a) State and explain the assumptions underlying the theory of **imperfect competition**.

(20 marks)

(b) **(i)** Explain, with the aid of a clearly labelled diagram the long run equilibrium position of a firm in **imperfect competition**.

(ii) State and explain **ONE** feature of this firm in long run equilibrium which would be common to a firm in long run equilibrium under **perfect competition**.

(iii) State and explain **ONE** feature of this firm in long run equilibrium which would be common to a firm in long run equilibrium under **monopoly**.

(40 marks)

(c) Consider the retail market for petrol.
Do you believe that this market operates under conditions of imperfect competition? State reasons for your answer.

(15 marks)
[75marks]

2004 Q1

(a) Explain, with the aid of a diagram, the long run equilibrium position of a monopoly firm.

(25 marks)

(b) If firms wish to enter a monopoly market they will face barriers to entry.
Explain **THREE** of these barriers.

(15 marks)

(c) If a monopoly firm wishes to engage in price discrimination, certain conditions must apply.
State and explain **THREE** of these conditions.

(15 marks)

(d) Irish semi-state transport companies are facing increasing competition.
Discuss **ONE** possible advantage and **ONE** possible disadvantage of this development for:

- Consumers;

AND

- Employees of semi-state transport companies. *(20 marks)*

[75 marks]

2003 Q1

(a) Outline **THREE** key features of an oligopolistic market and state **ONE** example of an oligopolistic market in Ireland.

(20 marks)

(b) With the aid of **ONE** clearly labelled diagram:

(i) Explain the shape of the demand curve facing a firm in oligopoly.
(ii) Explain the relationship between this demand curve and the firm's marginal revenue curve.
(iii) Explain the long run equilibrium position of this firm.

(40 marks)

(c) Explain **THREE** methods by which firms in oligopolistic markets may collude.

(15 marks)

[75marks]

2002 Q1

(a) Outline the assumptions underlying the theory of Perfect Competition. (20 marks)

(b) (i) Explain, with the aid of a labelled diagram, how a firm in Perfect Competition achieves equilibrium in the **short run**.

(ii) Derive and explain the short run supply curve of this firm. (20 marks)

(c) Discuss, with the aid of labelled diagrams, the impact which the entry of new firms would have on the short run equilibrium of existing firms, in perfectly competitive markets, earning supernormal profits. (20 marks)

(d) Firms in Perfect Competition tend not to engage in advertising.
State and explain **TWO** reasons why. (15 marks)

[75marks]

2001 Q1

(a) State and explain the assumptions underlying the theory of **Imperfect Competition**. (25 marks)

(b) Draw the demand curve which faces a firm in imperfect competition and justify its shape. (10 marks)

(c) Discuss, with the aid of a clearly labelled diagram, the implications of the assumptions in (*a*) above, on the equilibrium of the firm in the long run under conditions of imperfect competition. (30 marks)

(d) State **ONE FEATURE** of this firm in long run equilibrium which would be common to a firm in long run equilibrium under **EITHER** perfect competition **OR** monopoly. (10 marks)

[75 marks]

Answers

Short Questions

1) 2018 Q1

The firm in perfect competition is a **'price taker'**.

(a) Explain this statement.

4

4

Each individual firm must accept the price as it is set in the market.
Because each firm supplies such a tiny fraction of the market, it cannot influence the market price.
Demand is perfectly elastic and if price increases above the prevailing market price then quantity demanded would fall to zero.

(b) Other than price taking, outline **two** characteristics of a perfectly competitive market.

2 x 4
(2+2)

- Freedom of entry and exit.
- Perfect knowledge of market conditions: buyers always know the prices firms are charging, and therefore can buy goods at the cheapest price. Firms are aware of the profits earned by other firms in the industry.
- The products offered for sale are homogenous – largely the same / identical.
- Large number of buyers: no individual buyer can, by their own actions, influence the market price by altering purchases.
- Perfectly elastic supply of factors of production: a scarcity of factors doesn't develop causing prices to rise.
- No collusion in the market: it is assumed that firms don't group together to control prices / output.
- Firms aim to maximise profits where MC=MR.

2) 2019 Q9

(a) Define the term **price discrimination**. **8**

Selling the same product at different prices to different consumers or groups of consumers (in different markets) at varying ratios between marginal cost and price /the difference in price does not reflect cost differences.

(b) Outline **three** conditions necessary for price discrimination to occur. 3 x 3

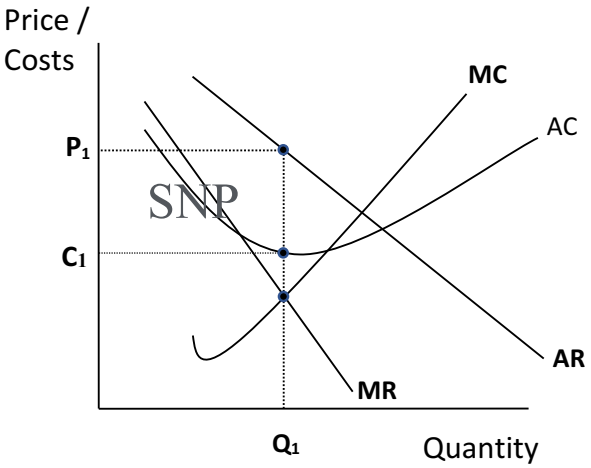
Some monopoly / market power
Firms must have some ability to alter the market price by exercising control over its demand, supply or both.

Separation of markets / limited ability to sell the product
This ensures that the good bought in the low-priced market cannot be offered for resale in the higher priced market. The consumer must be unable to resell the product e.g. dental appointments cannot be resold.

Different consumer price elasticities of demand / different demand curves
Different consumers display different sensitivities to price i.e. they have different price elasticities of demand. The price discriminator charges higher prices to consumers with inelastic demand and the lower prices to consumers with elastic demand.

3) 2017 Q6

The diagram below shows a firm operating under conditions of **Monopoly**.
(a) Label the lines/curves in the diagram and
(b) Use the diagram to explain the **long run equilibrium position** for a firm in Monopoly. **(17 marks)**



Explanation:

(i) Equilibrium is where MC = MR .

(ii) Firms produces Q_1 **and** sells it at P_1.

(iii) Costs are shown at C_1.

(iv) SNPs are being earned as AR > AC**/** barriers to entry exist.

or

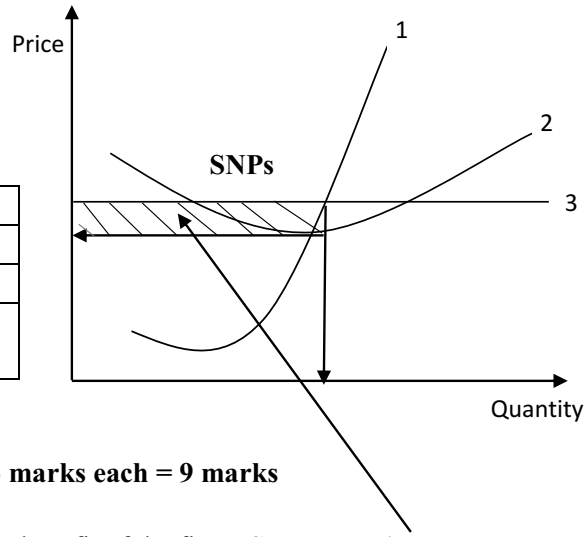
Firm is not efficient at it is not producing at the lowest point of AC

Diagram: MR, AR (D), MC: 3 at 2 mark each
Explanation: 11 marks graded

4) 2016 Q1

1. The diagram below shows a firm operating under conditions of **perfect competition** in the short run.

(16 marks)



(a) What is represented by the lines numbered1 to 3?
Use the answer box provided.

Number	Name
1	Marginal cost
2	Average costs
3	Average Revenue / Marginal Revenue / Demand

3 correctly labelled lines x 3 marks each = 9 marks

(b) (i) Show clearly on the diagram the total supernormal profit of the firm. **Shaded region above**

3 marks

(ii) Explain the term **supernormal profit:**

It is any profit earned in excess of normal profit (part of the AC). (It arises when AR is greater than AC).

4 marks

5) 2015 Q4

4. *A high concentration ratio is a key feature of an Oligopolistic Market.*

(a) Explain this statement and give **one** example.

Explanation:

A high concentration ratio exists in an industry if a **small number of firms** account for / **dominate a relatively large part of the total output of the industry.**

6 marks

Example:

Grocery trade in Ireland / Banking / Mobile phone industry / Domestic energy suppliers.

Example: 2marks

(b) Outline two ways oligopolists behave in the market:

Firms act in a way that affects the behaviour of their competitors in the industry. Firms are interdependent. Every decision a firm takes will be based on the likely reaction of its rivals to that decision.

Firms can compete via non-price competition. Any action taken by firms, other than lowering price, to increase sales (focus on quality, after sales service, product differentiation).

Firms may engage in collusive practices. Firms in the industry come together for their mutual benefit. Two or more firms act together to set price, output or other conditions of sale. Collusion can be explicit or implicit (tacit).

6) 2014 Q5

State **three** assumptions/characteristics underlying the theory of monopoly.

- There is only one firm in the industry / the firm is the industry.
- The firm controls price *or* output / the firm is a price maker.
- The firm aims to maximizes profits / it produces where MC = MR.
- Barriers to entry exist in the industry.
- A unique product is sold / there are no close substitutes.

3 assumptions: 6 marks + 5 marks + 5 marks
1st correct answer: 6 marks

7) 2013 Q4

(a) Collusion may be a feature of an oligopolistic market. Explain what is meant by 'collusion'.
(b) Collusive practices may be undermined by price wars. Outline **two** benefits of price wars for the consumer. **(16 marks)**

Collusion:

Rival sellers in the industry come together for their mutual benefit.

8 marks

Two benefits of price wars for the consumer:

1. **Lower prices / value for money**
   - Consumers will benefit from the availability of commodities at lower prices.
   - Consumers will be able to get better value for their limited income.

2. **Higher disposable income**
With lower prices consumers will now have a higher disposable income resulting in a better standard of living.

3. **More choice**
As consumers now have a greater disposable income they can choose how to spend this additional income.

Any 2 points at 4 marks each.

8) 2012 Q8

'Imperfect Competition is wasteful of resources'. Do you agree with this statement? Yes /No
Explain your answer.

Yes. It does not produce at the lowest point of average cost. This is due to spending by the firm on advertising its products / services or the firm does not produce a sufficient quantity to benefit from economies of scale.

Or

No. If a firm invests in innovation and increases sales it may not be considered wasteful e.g. Apple's investment confers an advantage on the company that it would not enjoy without such spending.

(1+8+8) marks.

9) 2011 Q3

Name the market structure (Perfect Competition, Imperfect Competition or Monopoly) to which each statement below is most likely to apply:

	STATEMENT	MARKET STRUCTURE
(i)	The firm has a perfectly elastic demand curve.	**Perfect Competition**
(ii)	The product of the firm is unique.	**Monopoly**
(iii)	Restaurants could be an example of this market structure.	**Imperfect Competition**
(iv)	Average costs of the firm are at a minimum.	**Perfect Competition**

4 correct responses x 4 marks each = 16 marks

10)2010 Q4

Define the term 'non-price competition'. State **two** examples.

Definition: **12 marks**

Competition between firms where each firm tries to increase its sales / market share by methods other than changing prices.

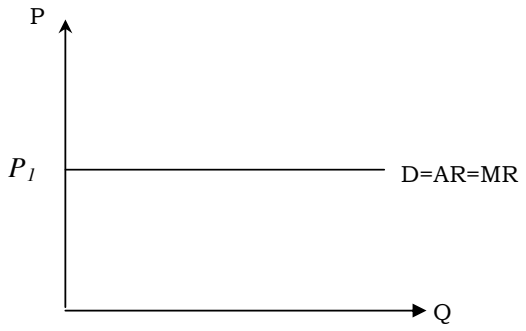
Two examples:

Branding: establishing different brand names for the products
Packaging: use of distinctive packaging to clearly distinguish one product from another
Competitive Advertising: helps create differences between products in the minds of consumers
Opening hours: offer extended opening hours for consumers
Quality of service: improve staff service; improve layout of premises
Sponsorship: local / national events
Special offers: free gifts/ money-coupons/ loyalty cards etc.

2 at 2 marks each.

11)2009 Q2

2. The diagram below represents the demand curve facing a firm in Perfect Competition.



This demand curve is; **(✓ correct answer)**

- Unitary Elastic ☐
- Perfectly Inelastic ☐
- **Perfectly Elastic** ☑

State the reason for your choice:

- Any deviation in price from P_1 will result in quantity demand falling to zero.

Perfectly elastic: **4 marks** and bulleted point above: **12 marks**

(16 marks)

12)2008 Q8

The diagram below represents the long run equilibrium of a firm in imperfect competition, which seeks to maximise profits. Label the diagram and use it to describe the long run equilibrium position for a firm in imperfect competition

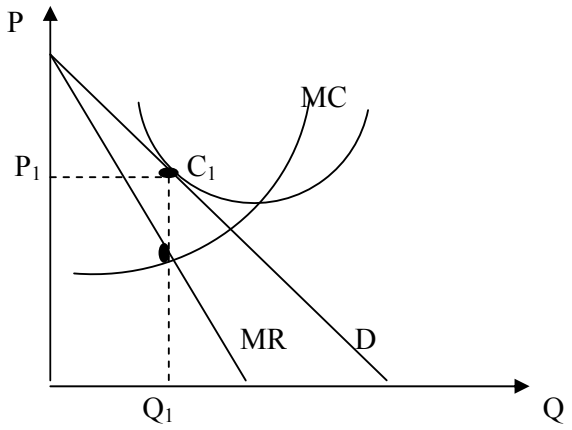


Diagram 5 marks graded.

Conditions:

1. MR = MC, profit maximisation, equilibrium
2. Equilibrium price = P_1
3. Equilibrium quantity = Q_1
4. Normal profit AR = AC/Cost of production C_1
5. Not producing at lowest point of AC curve (inefficient).

4 conditions: 12 marks graded.

13) 2007 Q4

Firms attempting to enter a **monopoly** market must overcome barriers to entry.
Outline **THREE** such barriers to entry.

1. **Legal / Statutory / Government Monopoly:**
   Government confers the sole right to supply a good or service/ CIE.
2. **Ownership of a patent / copyright**: A firm has the sole right to a manufacturing process.
3. **Sole rights to raw materials**: Firm may have complete control over the source of raw materials
4. **Large capital investment**:
   - minimum size of a firm required to operate efficiently is so large there is no room for competitors.
   - competitors are discouraged from entering because of the high initial start-up costs.
5. **Entering Trade agreements [collusion / cartels]**:
   ensures that no competition exists within members' segments of the market.
6. **Mergers / takeovers:**
   A firm may ensure their survival by merging / taking over other (rival) firms in the same line of business, such that it becomes a monopolist and no competition exists within the industry.
7. **Brand proliferation:**
   Through advertising a firm's consumers are convinced that there is no suitable alternative to their particular brands

16 marks graded.

14) 2006 Q7

7. Define **price discrimination**.
State **TWO** conditions under which it would be possible for a firm to price discriminate.

When goods or services are sold to different consumers in different markets at varying ratios between marginal cost and price/ the price difference is not due to difference in the cost of production.

1. Monopoly Power.
If freedom of entry existed into the industry, competitors would enter where the firm was charging the higher price and earning SNP and this would continue until only normal profit was earned.

2. Separation of markets.
This ensures that the good bought in the low priced market cannot be offered for resale in the higher priced market. If it was not possible to separate the markets then the above would occur until no price difference existed.

3. Different consumer elasticities of demand.
Consumers with the greater price elasticity of demand are charged the lower prices for their goods e.g. students are assumed to have lower incomes and so are not in the position to pay the full price for certain goods and services.

4. Consumer Indifference.
The difference in price may be so small that consumers are indifferent and so don't mind paying the slightly higher price.

5. Lack of awareness by consumers.
Consumers may be unaware that the good is available elsewhere at a lower price.

6. Consumer attitudes to the goods.
A consumer may be willing to pay a higher price for a good which they consider to be in fashion / provide status e.g. young people and their desire for 'branded' products.

17 marks graded.

15) 2005 Q7

7. "When a firm produces at a level of output at which marginal cost is greater than marginal revenue the firm is maximising profit (or minimising losses)". True / **False**
(Place a circle around your choice and write a one-sentence explanation of your answer)

False. The extra cost of producing further units of output is greater than the extra revenue generated therefore the firm could increase its profits by producing less output. The increased output adds more to cost than to revenues earned. Profits are maximised where MC=MR.

17 marks graded.

16) 2004 Q4

4. Identify FOUR features of an oligopolistic market:

1. **Few Sellers in the industry***
2. **Interdependence between firms***
3. **Product Differentiation occurs / firm sells close substitutes***
4. **Barriers to entry exist – such as** Limit Pricing**.**
5. **Collusion may occur.**
6. **Non-price competition is more common than price competition.**
7. **Pursuing objectives other than profit maximisation.**
8. **Existence of Price Rigidity / 'Sticky Prices'.**

Marking Scheme: 4 points x 4 marks each = 16 marks   ***Must list 2 of the top 3 points above + any 2 others***

17)2002 Q5

TWO benefits of non-price competition to consumers.

(a) **Stability in prices**: non-price competition means unchanging prices for the consumer
(b) **Better quality**: commodity; service; after sales service.
(c) **Benefits of advertising / Sponsorship**: improved range/quality of service i.e. media.
(d) **Consumer more informed**: advertising provides consumers with information.
(e) **Consumer loyalty rewarded:** allows consumers get 'free' gifts.

2 benefits x 8 marks each

18)2001 Q5

5. Identify TWO means by which semi-state companies which are monopolies could be made operate more cost effectively. 16 marks

1. Allow more competition in the sector / deregulation / e.g. electricity provision.
2. Allow the companies form strategic alliances e.g. Aer Lingus
3. Rationalise the company: reduce labour costs / discontinue unprofitable services.
4. Appoint only those members to the boards who have proven expertise in the relevant areas.
5. Reduce the extent of government interference in the day to day running of the companies e.g. Aer Lingus / RTE
6. Privatise the company – this will enforce efforts towards costs reduction.

Marking Scheme 2 points at 8 marks each graded

Long Question Answers

2018 Q2

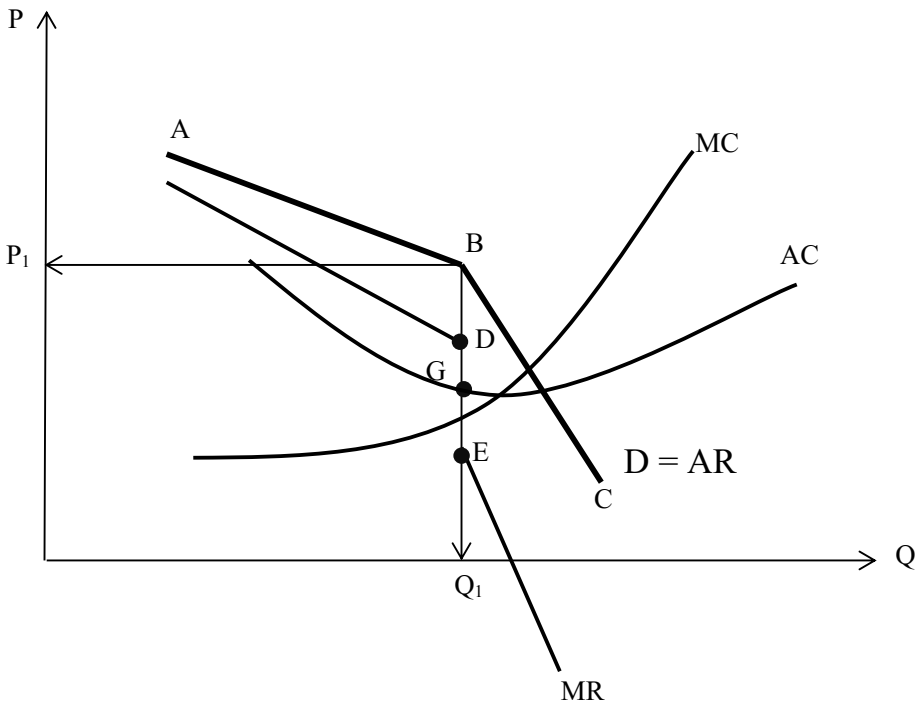
	Possible responses	Max Mark
(a) (i)	Describe how firms in this market structure compete with each other. **Non-price competition:** Because products are **close substitutes** firms may compete on quality of product; after-sales service; guarantees; sales promotions e.g. 'buy one get one free'; loyalty schemes. Firms may focus on convenience, packaging, advertising, promotion, advertising and branding/ Even though products are similar firms try to distinguish them in some way (product differentiation) e.g. engage in heavy "product loyalty" promotions / their focus is on brand recognition and loyalty. **-2m if no reference made to product differentiation**	**6**
(ii)	Discuss the advantages and disadvantages of oligopoly as a market structure. **Possible advantages include:** **Stability in prices / price comparability** If firms engage in non-price competition, then prices tend to remain stable and this enables the consumer to plan ahead and stabilise their expenditure. It is easy to compare prices as there are few firms which forces firms to set prices competitively, which is good for consumers. **Profit levels** Firms may have to sacrifice some of their profits to keep customers or undercut rivals / the existence of high profits may mean that the government benefits through higher taxation revenue/ firms may be able to afford to engage in R&D. **Quality of product /service** Firms may improve the quality of products so as to attract and retain consumers. Firms provide higher quality, more frequent services and other upgrades to maintain consumer loyalty. **Benefits of advertising** With advertising consumers may be better informed. This may save consumers time and money in searching for and learning about goods and services. Advertising may encourage innovation, technological development leading to improved products and services. **Possibility of lower prices** Economies of scale may be passed onto the consumer in the form of lower prices. If firms adopt a highly competitive strategy they can generate similar benefits to more competitive market structures, such as lower prices. **More secure employment** As there is little competition between firms, jobs may be more secure with the industry.	**2 x 6** (3+3)

2018 Q2 Continued

	Possible responses	Max Mark
(ii)	**Possible disadvantages include:** **Supernormal profits** Moderate to high barriers to entry exist so new entrants can't compete away supernormal profits (SNP). SNPs can be earned at the expense of the consumer. There may be a lack of innovation due to the existence of SNP. **Higher prices** If firms collude and decide to take a high price strategy, then this is not good for the consumer. Firms may meet to control the output in the industry and /or prices. The presence of cartels and cartel like behaviour reduces competition and can lead to higher prices. **Effects of cartels / collusion** Mutual interdependence makes the price and output difficult to predict. Collusion may occur and firms may work together in order to behave as if they were a Monopolist, thus making higher profits. Firms may not make independent decisions, and this limits competition. **Restricted choice** High concentration ratios reduce consumer choice of products / services. **Prevention of the entry of new firms/barriers to entry** It is very difficult for startups as advertising/branding by the large established firms limits exposure for new firms. The economies of scale resulting from advertising-driven demand and market share place prospective new entrants at a significant cost disadvantage. Other barriers to entry include patents and the inability to find suppliers of materials and components for products. Strong brand loyalty schemes may also prevent new entrants.	**2 x 6** (3 + 3) **30**

2018 Q2 Continued

	Possible responses	Max Mark
(b) (i)	Explain, using a clearly labelled diagram, the long-run equilibrium of a firm operating under oligopoly conditions. **Diagram**:	**9** (9 x 1)



Price axis / Quantity axis / Kinked D/C / Distinct MR / MC / AC / P_1 / Q_1 / Point G

Explanation:

1. Equilibrium occurs where (a) MC = MR & (b) MC is rising.
2. The firm will produce Q_1 and sell this output at price P_1
3. The firm's cost of production is shown at point G.
4. Should costs rise between points E and D then market price tends to remain constant at P_1.

or

5. This firm is earning SNPs because AR exceeds AC o*r* barriers to entry exist. (AR>AC)

8 (4 x 2)

(ii) With reference to the 'kinked' demand curve drawn in part (i) above, explain the rationale for **'price rigidity'.**

The firm above would fear increasing its price above P_1 as other firms will leave their prices unchanged, so this firm will lose many customers / fall in total revenue.

The firm would fear lowering its price below P_1 as it believes others will match this price decrease, so this firm will gain few additional customers / the proportionate increase in demand is less than the reduction in price and total revenue falls.

This results in the kinked D/C and no incentive to change price from P_1.

8 graded

25

2018 Q2 Continued

	Possible responses	Max Mark
(c)	'*Motor insurance providers in Ireland targeted in anti-cartel inquiry.*' (**Source**: *The Irish Times*, July 2017)	
(i)	Explain the likely effects on consumers if collusion (e.g. cartel agreement) existed in the motor insurance industry. **Higher / less competitive prices** Collusion may mean that these firms agree not to lower prices and so consumers pay higher prices and cannot seek more competitive quotes as the firms agree to act in this agreed way. **Restricted choice** Because of the agreement of firms not to compete, consumers may have less choice on the types of insurance available; extent of cover available; the benefits possible under policies etc. **Supernormal profits earned** The aim of the firms who collude (restrict output/control price) is to maximise profits or earn monopoly profits. If successful such agreements allow oligopolistic firms to earn monopoly profits for the industry as a whole / make supernormal profits at the expense of the consumer.	**2 x 5** (2+3)
(ii)	Suggest **two** measures the government could consider to discourage anti-competitive practices in industry. Explain your answer. **Improved consumer protection / education / awareness** Promote better consumer education and awareness. Encourage more reporting of anti-competitive practices as experienced by consumers. They could encourage consumers to shop around and to look at their options e.g. switching provider/ use 'Bonkers'. The Central Bank requires insurers to provide correct information to consumers when selling and renewing policies. **Improved regulation of the industry** Better regulation may discourage anti-competitive practices in the industry. The Competition Authority could make further efforts to encourage competition in markets and so protect the interests of consumers. The government could introduce tough anticompetitive legislation. Require insurers to explain how policies are priced. Extend the period of renewal to allow consumers time to shop around. **Improved investigation of alleged lack of competition** The Competition Authority could investigate breaches of competition law and take appropriate action. Advise the government on how to protect and improve competition in the economy. The EU Competition Commission might introduce greater fines / longer jail sentences for offenders. **Deregulation of the industry** The government could attempt to deregulate the industry. Lower barriers to entry / encourage the growth of small firms so as to eliminate inefficiency and to encourage better resource allocation.	**2 x 5** (2+3) **20**

2017 Q2

(a) (i) Show, by means of **two** separate labelled diagrams, the **short run** and **long run** equilibrium positions of a profit maximising firm in **perfect competition.**

(ii) Compare the short run equilibrium position with the long run equilibrium position of a perfectly competitive firm under the following headings: Price and Output / Profits / Efficiency. [35]

Short run

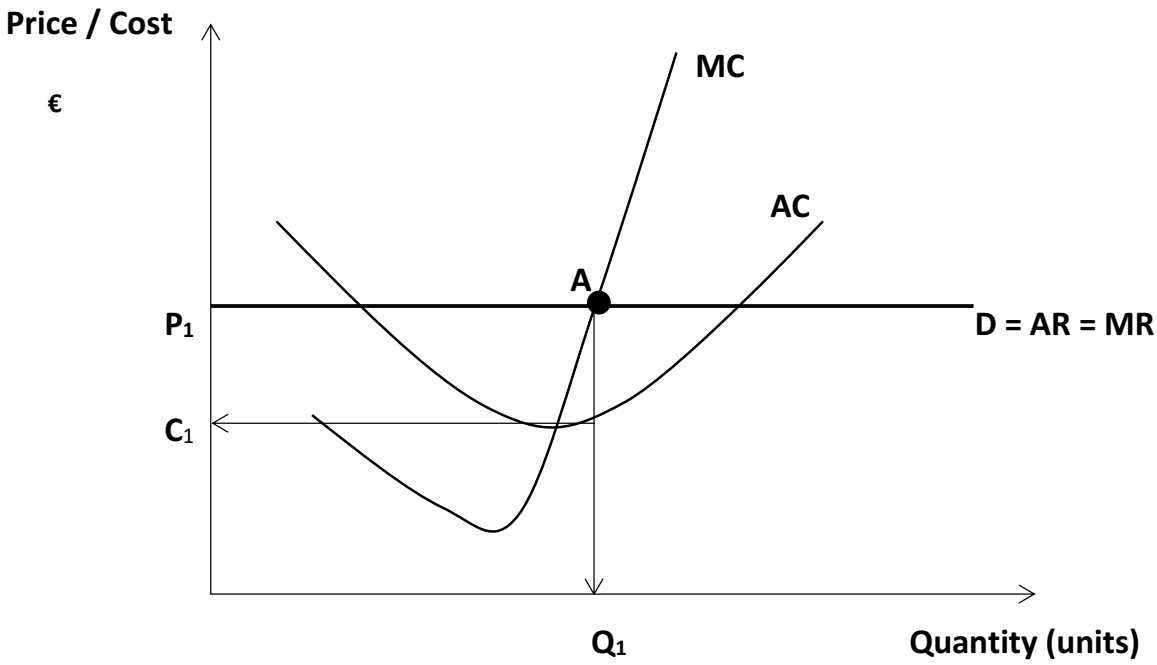


Diagram: P / Q / AC / MC / P = AR = MR / P_1 / Q_1 / C_1 / Equilibrium point : 9 at 1 mark

Long Run

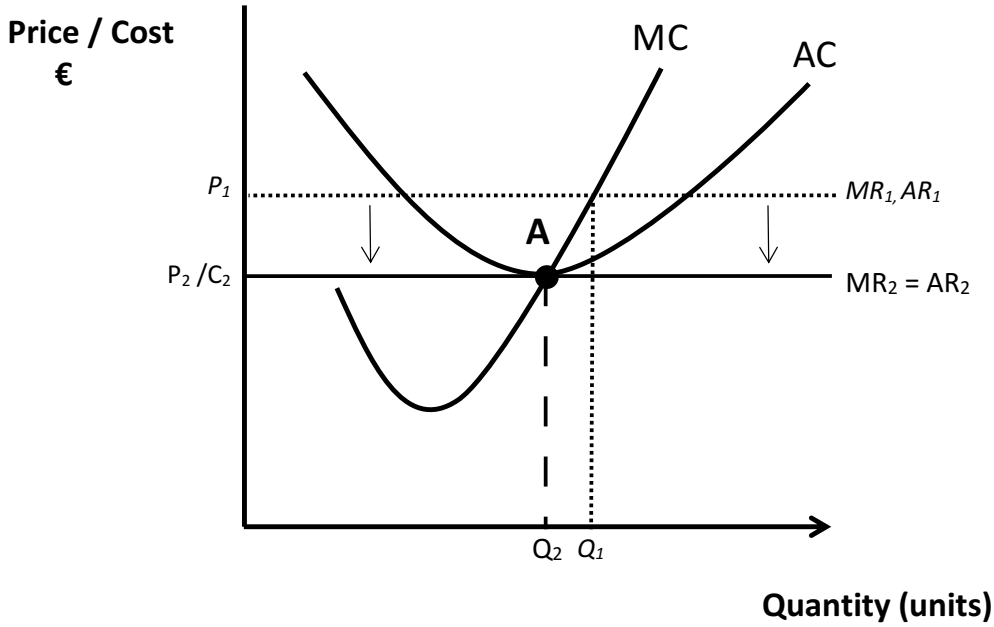


Diagram:

AC (2m) at a tangent to AR (2m); Then P_2 /C_2 / Q_2 / Equilibrium point: 1mark each: 8 marks

2017 Continued

(ii) Compare the short run equilibrium position with the long run equilibrium position of a perfectly competitive firm under the following headings:

- Price and Output
- Profits
- Efficiency.

Price and Output	• When new firms enter the industry the market price falls and the firm must accept the market price. The price in the long run is lower than it is in the short run as the firm must accept the market price. The firm's output in the long run is lower than in the short run. • As new firms enter the industry each firm will supply a smaller fraction of the total output. **6 marks**
Profits	• In the short run the firm earns SNP as AR>AC . • In the long run, new firms "compete" away the SNP so only normal profit is earned where AR=AC. **6 marks**
Efficiency	• In the short run as there is SNP there is no incentive for firms to be efficient and they do not produce at the lowest point of the AC curve. • In the long run, only firms that are efficient and produce at the lowest point on the AC curve will survive. **6 marks**

(b) The table below shows data for a perfectly competitive firm in equilibrium.

Average Revenue (€)	Average Variable Cost (€)	Average Total Cost (€)
50	40	60

(i) Using your knowledge of perfect competition, what is the marginal revenue earned by this firm? Explain your answer.

(ii) Should this firm continue in business? Explain your answer.

[20]

(i) In Perfect Competition MR = AR thus MR = €50

In perfect competition the firm is a price taker /The demand curve is horizontal/ The AR and MR are equal and constant/Each additional good is sold at the market price.

8 marks (4+4)

(ii) This firm should continue in business **in the short run** even though it is making a loss.
The Price (i.e. AR) €50 is below the ATC of €60. The firm is making a loss of €10 per unit.
The firm is actually covering all of its variable costs and part of its fixed costs.
Thus, the firm should continue in business in the short run and absorb some of the loss and hope, by adjusting it costs or production levels, to cover all of its costs in the long run.

12 marks (4+4+4)

2017 Continued

(c) Bord Bia reported the total value of the Artisan Food market to be growing strongly, leading to more firms entering the industry. (Bord Bia defines Artisan Food as being "high-quality, distinctive and produced in small quantities", e.g., farmhouse cheeses, breads etc.) [20]

(i) State a market structure which most closely reflects this situation, giving reasons for your answer.

The Artisan Food market is imperfectly competitive (monopolistically competitive).

4 marks

1. There are many firms in this industry with a relatively small market share/Each artisan producer is too small to influence the overall market.

2. There is freedom of entry and exit to/from the industry as no barriers to entry exist.

3. Product differentiation exists: The goods are differentiated which gives each firm some power over price but as close substitutes are available they take into account the effect on demand if they change their price.

2 reasons at 3 marks each

(ii) Explain the shape of the demand curve of a firm in this market structure.

An imperfectly competitive firm faces a downward (negatively) sloping demand curve.

4 marks

Because it sells a differentiated product, it has some market power over price and it can decide what price to charge. Each firm has a product that consumers view as somewhat distinct from the products of competing firms. If the firm increases the product price there will be a reduction in demand as some consumers will switch to rival firms' goods (close substitutes) that have become relatively cheaper.

6 mark graded

2016 Q2

Cadbury, Mars and Nestlé dominate the chocolate industry in the European Union.

(a) (i) State a market structure which most closely reflects the situation above, giving a reason for your answer.
(ii) Outline **two** other key characteristics of this market structure.
(iii) Explain, with the aid of a labelled diagram, the likely shape of the demand curve in this market structure. [35]

(i) State a market structure which most closely reflects the situation above, giving a reason for your answer.

Oligopoly
The industry is dominated / controlled **by a small number of firms** that **hold a large share of the market** / high concentration ratio.

7marks

(ii) Outline **two** other key characteristics of this market structure.

Mutual interdependence between firms

Product differentiation

Brand proliferation

Barriers to entry

Collusion may occur (Explicit or implicit)

Non-price competition is more common

Firms may pursue objectives other than profit maximization

2 x 5 marks (2+3)

2016 Continued

(iii) Explain, with the aid of a labelled diagram, the likely shape of the demand curve in this market structure.

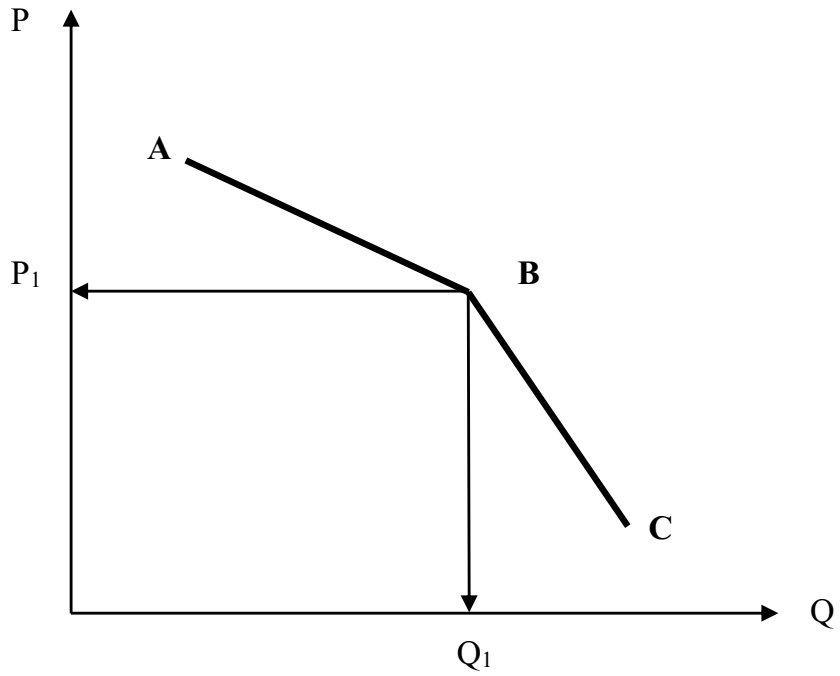


Diagram: P, Q, AB, BC, P_1 : 5 x 1 marks = 5 marks

Overall D/C
The overall demand curve is ABC, kinked at point B.

3 marks

Demand curve - AB
This portion of the D/C is elastic. The firm would fear increasing its price as other firms will leave their prices unchanged so this firm will lose many customers (the firm fears it will lose significant market share).

5 marks

Demand curve – BC
This portion of the D/C is inelastic. The firm does not lower its price as it believes other firms will match this price decrease so this firm will gain few additional customers / this could lead to a price war.

5 marks

2016 Continued

(b) (i) If a large US chocolate manufacturer entered the EU chocolate market, outline the possible economic impacts of greater competition in this market.

(ii) Outline **two** factors which could make it difficult for this US chocolate manufacturer to enter the EU chocolate market. [25]

(i) If a large US chocolate manufacturer entered the EU chocolate market, outline the possible economic impacts of greater competition in this market.

Lower prices for consumers
Increased competition within the market can drive prices down for the benefit of consumers.

More choice for consumers
Consumers can expect a wider choice of chocolate on the market with the US firm trying to gain market share.

Better quality product
Competition may lead to a better quality chocolate product for the consumer.

More innovation
Firms that are faced with competitive pressure are more likely to look for ways to make their products more attractive to consumers. Thus consumers will benefit as firms create and modify products to suit consumer's tastes. Firms' fear of competitors stealing market share is the driver of this innovation and quality improvement.

Better use of scare resources / greater efficiency
In order to be more competitive firms within the industry may aim to reduce costs which may result in greater efficiency and better use of resources.

3 x 5 marks (2+3)

(ii) Outline **two** factors which could make it difficult for this US chocolate manufacturer to enter the EU chocolate market.

Existence of trade agreements / EU import tariffs/Regulations within the EU
These agreements could make it difficult for the US manufacturer to enter the EU market. EU import tariffs will add to the cost of doing business and may be passed onto the consumer in the form of higher prices.

Brand loyalty of existing customers/ Creating a new brand / advertising
EU consumers may be loyal to existing brands and it will cost the US firm a lot of money on advertising to create its own brand loyalty. It will be expensive to establish a different and distinctive brand name from those already well-established in the market. (Creating differences in the product in the minds of consumers e.g. packaging which clearly distinguishes one product from another).

Economies of scale in the European market
These may have been achieved by existing producers in the European market over a period of time and resulting in lower average costs of production. It will be difficult for a new entrant to achieve these economies of scale and so compete with existing firms.

Knowledge and expertise
The present suppliers of chocolate have an advantage in terms of knowledge of the market which will take time and money for the US producer to ascertain.

Transport costs
If produced in the US, the cost of transporting the chocolate into the EU market will increase the costs of production.

2 x 5 marks (2+3)

2016 Continued

(c) Explain why small firms succeed in some markets while other markets are dominated by large firms. [15]

Why small firms succeed in some markets:

Personal service
Small firms provide personal attention in the provision of certain goods and services e.g. hairdresser, plumber etc.

Size of market doesn't justify a large supplier
The restricted size of the market may not facilitate the operation of large scale business e.g. a small shop in a rural area may be viable while a large supermarket may not.

Government assistance for small firms
The government may provide aid in the form of grants or subsidies for labour.

Consumer loyalty
Small firms may have built up a reputation over the years in the provision of goods and services to its customers who may respond by being loyal to that firm.

Viable community
Citizens in small communities may support local business so that continuity of supply is ensured e.g. a community may support its local shop so that it continues in existence.

Niche markets/traditional markets/the type of product /service being supplied
The type of product / service being supplied might make it more suitable for a small firm. Examples include: wedding planners; handmade/ craft products; perishable products etc.
A small firm may find it easier to locate close to the market where it might be difficult for a larger firm to do so e.g. roadside sellers of local produce can be flexible in choosing their location.

Nature of product
Heavy goods which are costly to transport may be manufactured locally on a small scale to supply local markets e.g. concrete blocks

Why some markets are dominated by large firms:

Existence of economies of scale
Larger firm benefit from the advantages of large scale production whereby unit cost falls as a firm expands in size. The nature of small firms makes it difficult to achieve such economies of scale.

Existence of barriers to entry
Makes it difficult for new firms entering the market e.g. Mobile phones industry; banking sector.

Advertising
The cost of using national media e.g. TV, newspapers, cinema etc. is expensive and this cost is prohibitive for small firms e.g. local supermarkets.

Product differentiation
Investment in R & D to such an extent that small firms would not have the resources to compete.

Brand Proliferation
Large firms have the resources to invest in establishing many brands and small firms would not be able to compete on such a basis.

3 x 5 marks (2+3)

2015 Q2

(a) (i) State and explain **two** examples of barriers to entry facing firms wishing to enter a monopoly market.

(ii) Explain, with the aid of a diagram, the long run equilibrium position of a monopolist. Identify on your diagram the profit the monopolist makes. (35)

(i) Barriers to entry facing firms wishing to enter a monopoly market.

Legal / statutory restrictions
The government may grant a firm the sole right to supply a good or service so that there is a legal restriction on competition e.g. Irish rail services or government legislation regarding licences.
Trade Agreements / market sharing agreements
Firms may enter into trade agreements with other suppliers (collude with them) so that no other firm can supply the commodity to a particular segment of the market.
Ownership of a key resource / raw materials
A firm may acquire the sole right to the available raw materials thereby becoming a monopoly in that particular market e.g. an oil exploration company.
Industry requires a large investment in capital / High start-up costs
For some industries the capital required to get established in that industry is so large that only the firm which can raise the necessary capital can operate in the market. Competitors are discouraged from entering because of the high initial start-up costs.
Mergers / Takeovers
By merging with a competitor or buying out the competitor a firm may become a monopoly supplier in that industry.
Limit pricing
A firm may use limit pricing (selling at exceptionally low prices) to force new entrants out of the industry so that it retains monopoly power.
Brand dominance of a large supplier
A firm may gain monopoly power, if through its advertising consumers are convinced that there is no suitable alternative to its particular brands.
Natural monopoly / economies of scale/ technological superiority
A natural monopoly arises because a single firm can supply a good or a service to an entire market at a smaller cost than could two or more firms. A firm that has superior technology can become a monopolist. However, over time competitors may enter the market e.g., Intel had market dominance until AMD entered the market.
Ownership of a patent / copyright
If a firm has the sole right to a manufacturing process then no other firm can compete with it. A patent (i.e. used to protect the intellectual property rights of firms) acts as a barrier to entry. Other firms are not allowed to produce the good until the patent has expired..

2 points at 5 marks (2 + 3)

2015 Continued

(ii) Explain, with the aid of a diagram, the long run equilibrium position of a monopolist. Identify on your diagram the profit the monopolist makes.

(35)

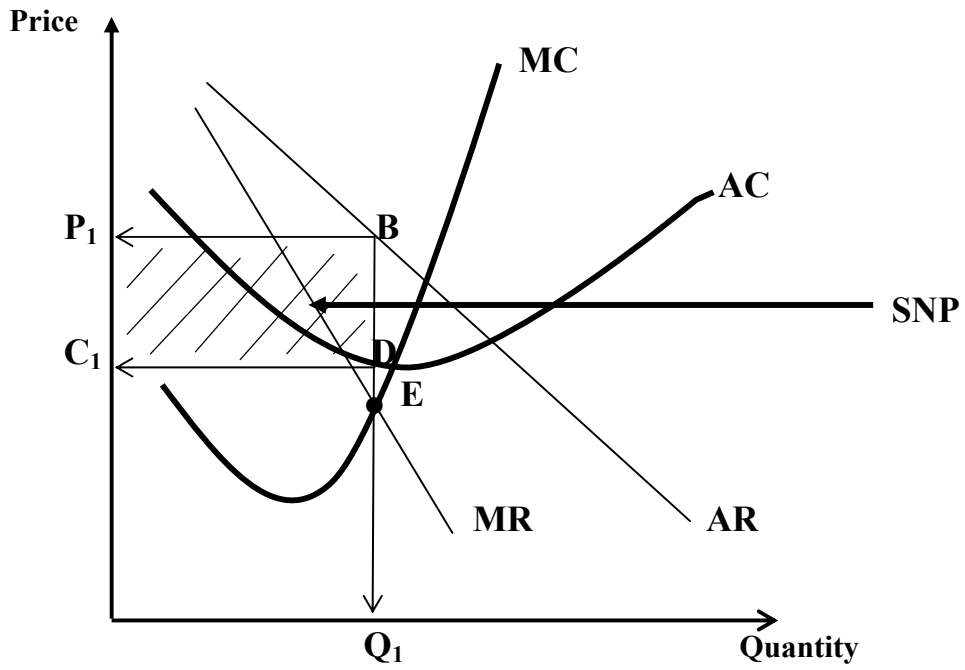


Diagram: 11 points at 1 mark each.

1	2	3	4	5	6	7	8	9	10	11
Price axis	**Quantity axis**	**AR**	**MR**	**MC**	**AC**	**Correct Equilibrium point - E**	**P_1**	**C_1**	**Q_1**	**Profits shown**

Explanation: 14 marks

1. Equilibrium
- Occurs at point E where **1 marks**
- MC = MR [and MC is rising] **2 marks**

2. Price / Output
- The firm produces Q_1 **2 marks**
- and sells it at P_1 **1 marks**

3. Cost
- The cost of producing this output is shown at point C_1 **2 marks**

4. SNP
- The firm is earning SNP [P_1 C_1D B] **1 mark**
- because AR > AC ***or*** they can continue to exist due to barriers to entry. **2 mark**

5. Waste of Scarce Resources / Inefficiency **1 mark**
- The firm is not producing at the lowest point on the AC curve **2 mark**

2015 Continued

(b) *A monopolist can increase its profits by engaging in price discrimination.*

(i) Explain the concept *price discrimination*, using a suitable example.
(ii) State and explain the market conditions necessary for price discrimination to take place. (25)

(i) Explain the concept *price discrimination*, using a suitable example.

Explanation:

When the same goods or services are sold to different consumers (in different markets) at varying ratios between marginal cost and the price / the price difference is not due to differences in the cost of production.

8 marks

Example:

By location (different regions / countries different prices (e.g. Netflix more expensive in Ireland than in the UK).
By demographic (child fares / OAP concessions / students at cinema)
By time, different rates at different times (Rail fares at commuter times, at other times)
By status (existing club members may be charged different prices to new members)

2 marks

(ii) State and explain the market conditions necessary for price discrimination to take place.

Some monopoly / market power
Firms must have some ability to alter the market price by exercising control over its demand, supply or both. If freedom of entry existed into the industry, competitors would enter where the firm was charging the higher price and earning SNP and this would continue until only normal profit was being earned.

Separation of markets / limited ability to sell the product
The markets must be distinct and separate. This ensures that the good bought in the low priced market cannot be offered for resale in the higher priced market (no resale between markets). If this was not the case the transfer of the goods bought in the low price market to the high price market would make the charging of different prices in the two markets impossible. Dental/Doctor treatments cannot be sold.

Different consumer price elasticities of demand / different demand curves
Different consumers display different sensitivities to price i.e. they have different price elasticities of demand. Consumers with the greater PED are charged the lower prices for their goods e.g. students are assumed to have lower incomes and so are not in the position to pay the full price for certain goods and services.

3 conditions at 5 marks each (2 + 3)

2015 Continued

(c) *The Commission for Energy Regulation (CER), Ireland's independent energy regulator, has been appointed as the independent economic regulator for Ireland's public water services.*

Discuss whether or not Irish Water (Uisce Éireann), Ireland's new water utility company, should be regulated. (15)

Possible responses include:

Arguments why Irish Water should be regulated

Pricing: ensure that consumers are charged a fair price
As water is a basic human right it should be provided to consumers at a fair price.
The regulator should prevent the abuse of monopoly power and so protect the interests of water customers and ensure that they are not exploited. By approving and regulating Irish Water's proposed revenue allowances and tariff structures consumers can be protected.

Quality: provision of clean water
Regulation should ensure that water services are delivered in a safe and secure way / the water provided should be clean and an uninterrupted supply should be guaranteed.

Invest in infrastructure
To ensure Ireland has sustainable water supply and wastewater treatment service provision it must invest in infrastructure to support the development of the service into the future e.g. remove the lead in water pipes.

Protection of the environment
Irish water is responsible for wastewater treatment. This will ensure that the environment is protected and thus future citizens are safeguarded etc.

Arguments why Irish Water should not be regulated

Laissez faire policies should be pursued
The government should not interfere in the market. By regulating the market this may discourage potential investors in Ireland as they see their profit motive may attract negative attention.

Prices should be determined by the market
The price of water should be determined by the market. This should ensure that the full economic price is charged for the service and no political interference should be considered.

Irish Water can generate funds for innovation
Irish Water will be able to generate funds which would allow the company innovate in production / distribution methods / generate funds for investment in infrastructure etc.

3 reasons at 5 marks each (2 + 3)

2014 Q2

(a) (i) State and explain **three** assumptions underlying the theory of imperfect competition.
(ii) Explain why a firm's demand curve under imperfect competition differs from a firm's demand curve under perfect competition. (25)

(i) State and explain **three** assumptions underlying the theory of imperfect competition.

There are many buyers
An individual buyer, by his/her own actions, can not influence the market price of the goods.

There are many sellers in the industry
An individual seller can influence the quantity sold by the price it charges for its output.

Product differentiation exists
The goods supplied by the firm are not homogenous but are close substitutes.
Firms use branding to distinguish their products from one another.

Freedom of entry and exit
No barriers to entry exist within the industry.
It is possible for firms to enter/leave the industry as they wish.

Reasonable knowledge
Within the industry each firm has reasonable knowledge of profits made by other firms.
Consumers have a reasonable knowledge of the prices being charged for different products.

Each firm attempts to maximise profits
Firms produce where MC = MR.
Each firm will attempt to minimise costs of production.

3 Assumptions: 5 marks + 4 marks + 4 marks
1st correct answer: 5 marks

(ii) Explain why a firm's demand curve under imperfect competition differs from a firm's demand curve under perfect competition.

Perfect competition

The demand curve facing a perfectly competitive firm is horizontal or perfectly elastic (D=AR=MR). This is because each firm is selling an identical (i.e. homogeneous) product and each firm's quantity sold is small relative to the total market size. Any attempt to undercut the market price will result in complete switching to identical products of competitors.

6 marks

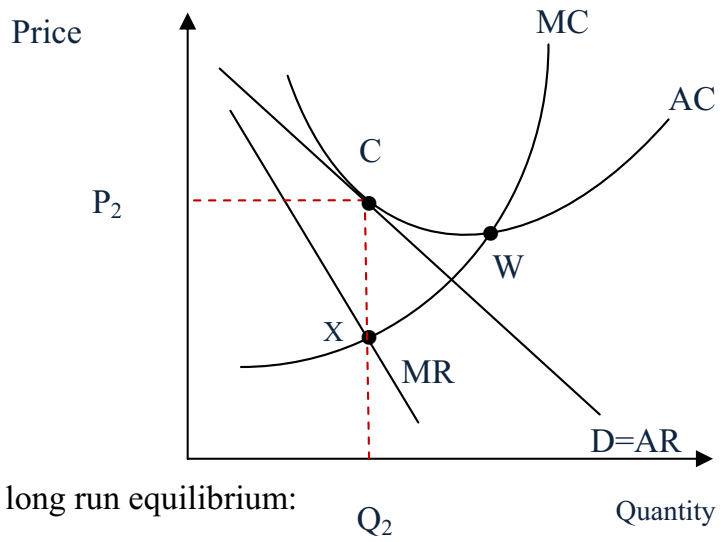
Imperfect competition

The demand curve facing a firm in imperfect competition is downward-sloping. This is because each firm sells a differentiated product, which creates scope for brand loyalty. Each firm has a product that consumers view as somewhat distinct from the products of competing firms.
If the firm increases the product price there will be a reduction in demand as some consumers will switch to rival firms' goods (close substitutes) that have become relatively cheaper.

6 marks

2014 Continued

(b) (i) Explain, with the aid of a diagram, the long run equilibrium of a firm in imperfect competition.



Explanation of long run equilibrium:

- Equilibrium / profit maximisation occurs (at point X) where MC = MR (*MC is rising and cuts MR from below*).
- The level of output produced is Q_2 and the price the firm sells this output at is P_2.
- The average cost of production is shown at point C / not producing at lowest point of AC.
- This firm is earning normal profits because AR = AC.

Correct Diagram: 10 marks/ Explanation: 8 marks = 18 marks

(ii) With reference to your diagram in (b) (i) explain why the firm is not making socially efficient use of scarce resources.

Possible response

An imperfectly competitive firm does not produce at the socially efficient lowest point on its AC curve, point W.

They are not producing at the lowest point of AC due to product differentiation. Product differentiation makes a firm's product appear different through additional costs such as advertising and branding.

Price exceeds the marginal cost of production. The extent of the difference between P and MC represents the degree of monopoly power the firm is able to exert in the market for its differentiated product.

Because it is not producing at the lowest point of the average cost curve, there is spare/excess capacity in its operations and society does not benefit from maximum utilisation of resources. Consumers gain variety at the expense of social efficiency.

3 points of information: 4 marks each = 12 marks

2014 Continued

(c) "A few large retailers (e.g. Tesco, SuperValu, Dunnes Stores, Aldi, Lidl) dominate the Irish grocery market at present."
Suggest a market structure which most closely reflects this situation. Explain your answer. (20)

Market Structure: **Oligopoly**

Explanation:

The Irish grocery market is dominated by a few large sellers
The industry is dominated by a few large retailers, who hold a major share of the market / high concentration ratio. The large multiples dominate the grocery trade in Ireland. While Tesco's dominant market share is falling the share of the market held by Lidl and Aldi is expanding. The Musgrave Group is also a large player which owns Centra and SuperValu.

Barriers to entry exist
New firms may find it difficult to enter due to high barriers to entry such as economies of scale, brand proliferation and control by existing firms of the channels of distribution. Limit Pricing may also be used by the existing firms, so future entrants to the market are discouraged. Apart from the entry of Aldi and Lidl no new firms have entered the Irish grocery trade in recent years.

Mutual interdependence between the large retailers
Firms interact by taking account of each other's marketing/pricing strategies. They are concerned with maintaining or increasing their share of the total market e.g. the current wave of below cost selling/loss leaders, which has become part of the pricing strategy of Dunnes Stores, Aldi, Lidl etc.

The products sold are close substitutes / product differentiation
Competitive advertising is very important as is heavy 'product loyalty' promotions in-store e.g. loyalty cards etc. Large multiples also use 'brand names' to maintain consumer loyalty. The multiple may also use advertising and marketing campaigns to create differentiation in the mind of consumers, even though its product is more or less identical to the products of rivals/ positioning strategies attempt to increase brand recognition and loyalty. The multiples engage in extensive advertising on TV and newspapers.

Non price competition
The large retailers that have a tacit understanding not to compete on price often engage in intense non-price competition using advertising and other means to try and increase their sales. There may be short-lived price wars or price competition based around a few well-known products as happened with the multiples before the Christmas period. Price wars occur when tacit collusion breaks down and prices collapse.

Choice of market structure: 1 mark
Explanation: 4 responses: 5 marks + 5 marks + 5 marks + 4 marks
Reference must be made to the Irish grocery market

2013 Q2

(a) Technology companies such as Apple and Samsung are currently involved in legal disputes regarding patents on various aspects of their smartphones. When a company wins a patent dispute it may become the sole producer using the patented technology.

(i) Explain **three** barriers to entry, other than patents, that can exist in business.

(ii) Outline **two** reasons why monopolies may not be in the public interest. (25)

(i) Explain **three** barriers to entry, other than patents, that can exist in business.

Government Regulation / Legal restrictions
The government may grant a company the sole right to supply a good or service so that there is a legal restriction on competition e.g. Dublin Bus routes / rail services.
Trade Agreements & Collusion.
Companies may enter into trade agreements with other suppliers (collude with them) so that no other company finds it possible to supply the commodity to a particular segment of the market.
Ownership of raw materials
A company may acquire the sole right to the available raw materials thereby becoming a monopoly in that particular market e.g. an oil exploration company.
Industry requires a large investment in capital / High start-up costs
For some industries the capital required to get established in the industry is so large that only the company which can raise the necessary capital can operate in the market. Competitors are discouraged from entering because of the high initial start-up costs.
Mergers / Takeovers
By merging with a competitor or buying out the competitor a company may become a monopoly supplier in that industry.
Monopolies based on fear, force or threats
An individual or group of individuals may, by fear, force or threats, stop other individuals competing with the supplier e.g. the supply of illegal drugs
Limit pricing
A company may use limit pricing (selling at exceptionally low prices) to force new entrants out of the industry so that it retains monopoly power.
Proliferation of brands on the market
By using extensive branding of its products a company may be able to dominate the market so that competitors may find it impossible to compete.

3 at 5 marks (2+3) each

2013 Continued

(ii) Outline **two** reasons why monopolies may not be in the public interest.

Higher Prices
Monopolies can charge higher prices, compared to perfect competition, because there is no competition.

Lower output produced
Monopolies with similar costs to a firm in perfect competition may produce a lower output compared to a firm in Perfect Competition.

Inefficiency/Wasteful of resources
Monopolies not producing at the lowest point of the AC curve results in waste of scarce resources.

Super Normal Profits
If a monopolist charges a price above AC then it will earn SNPs at the expense of the consumer.

Poorer Quality Service
Due to lack of competition the quality of service provided may be poor.

Lack of innovation
The lack of competition means that a Monopolist does not have to innovate or develop new products or services.

May engage in price discrimination
Some monopolies engage in price discrimination which means that different prices are being charged for the exact same good or service.

Loss making state monopolies
If the monopoly is state run and is loss making e.g. CIE then these losses are borne by the taxpayers in the form of higher taxes.

2 at 5 marks (2+3) each

2013 Continued

(b) Explain, with the aid of a diagram, the long run equilibrium position of a monopoly firm. (25)

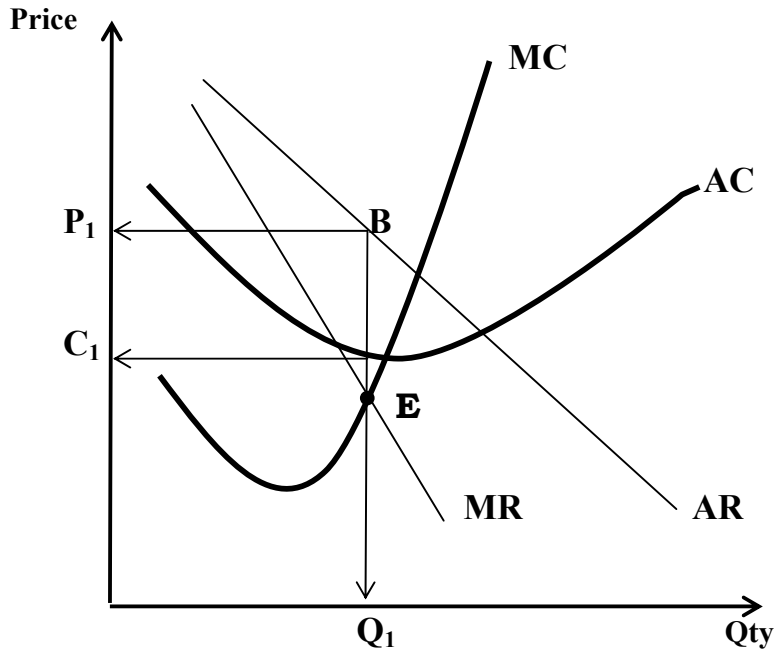


Diagram: 10 points at 1 mark each.

1	2	3	4	5	6	7	8	9	10
Price axis	**Quantity axis**	**AR**	**MR**	**MC**	**AC**	**Equilibrium point- E**	**P_1**	**C_1**	**Q_1**

Explanation: 15 marks

1. Equilibrium/Profit maximising point
   - Occurs at point E.)
   - Where MC = MR.) **Any 2 points at 2 marks each.**
   - And MC is rising.)

2. Price / Output
   - The firm produces Q_1 **2 marks**
   - and sells it at P_1 **2 marks**

3. Cost / Normal profit
   - The cost of producing this output / normal profit is shown at point C_1 **2 marks**

4. SNP's
   - The firm is earning SNPs **2 marks**
   - Because AR > AC ***or*** they can continue to exist due to barriers to entry. **1 mark**

5. Waste of Scarce Resources / Inefficiency **1 mark**
   - The firm is not producing at the lowest point of AC **1 mark**

2013 Continued

(c) The global market for toothpaste products can be described as an imperfectly competitive market, where firms engage in competitive advertising and branding.

(i) Explain the term 'competitive advertising'.

(ii) Outline, using an example, how advertising can be used to prevent small firms entering an industry.

(iii) State and explain **two** possible disadvantages of advertising for the consumer. (25)

(i) Competitive advertising

This is advertising which stresses the advantages of one firm's products/services over its rivals.

7 marks

(ii) Outline, using an example, how advertising can be used to prevent small firms entering an industry.

Any correct Explanation: **Prohibitive costs of advertising**: **3 marks**

If a small firm has to advertise in order to compete with rival firms its costs will increase disproportionately to a larger firm, therefore advertising may be used as a barrier to a small firm entering an industry.

or

Existing firms may continue to spend money on advertising to increase their sales/market share persuading consumers that their product is the best, so consumers will stay with their products making it difficult for small firms to enter.

Any correct Example: **3 marks**

Two firms spend €6,000 on an advertising campaign.
The small firm produces output of 300 units so the average cost per unit is €20.
The larger firm produces output of 8,000 units so the average cost per unit is €0.75.

(iii) State and explain **two** possible disadvantages of advertising for the consumer.

1. Increased prices
The firm may have to increase prices to cover the increased costs.

2. False / Misleading information
Consumers may be presented with inaccurate/incomplete information leading to confusion / mis-information.

3. Impulse buying / creates unsustainable wants
The advertising may lead customers to impulse buy and so 'waste' part of their income.
Advertising may create a desire in consumers for a life style which is not attainable.

4. Harmful commodities
Advertising may encourage the consumption of harmful commodities e.g. cigarettes; alcohol which may damage the health of the consumer.

5. Unnecessary pollution
Consumers may have to pay for the removal of litter caused by advertising such as leaflets discarded etc.

2 at 6 marks (3+3) each

2012 Q2

(a) (i) Explain the reason for the shape of the demand curve of an individual firm in perfect competition.
(ii) Outline **two** advantages of perfect competition. (20)

(i)

- A firm in perfect competition is a price taker / it accepts the market price.

6 marks

- The single firm by its own actions cannot influence the market price because the single firm represents such a small proportion of the total supply.

Or

- If a firm increases price quantity demanded will fall to zero as consumers switch to the cheaper identical goods available.

4 marks

(ii) Outline **two** advantages of perfect competition.

Low prices
The firm sells its products at the lowest possible prices.

Efficient
The firm produces at the lowest point of average costs so there is no waste of scarce resources.

No advertising
As the goods are homogeneous there is no need for wasteful advertising.

Normal profits earned
Because freedom of entry exists no firm will continue to earn SNPs in the long run as new firms will enter / no exploitation of consumers.

2 at 5 marks each.

2012 Continued

(b) (i) Explain, with the aid of a labelled diagram, the equilibrium position of a firm in **short run perfect competition.**

(ii) With the aid of labelled diagrams, explain the impact which the entry of new firms would have on the market **and** on the equilibrium position of the firm. (35)

(i)

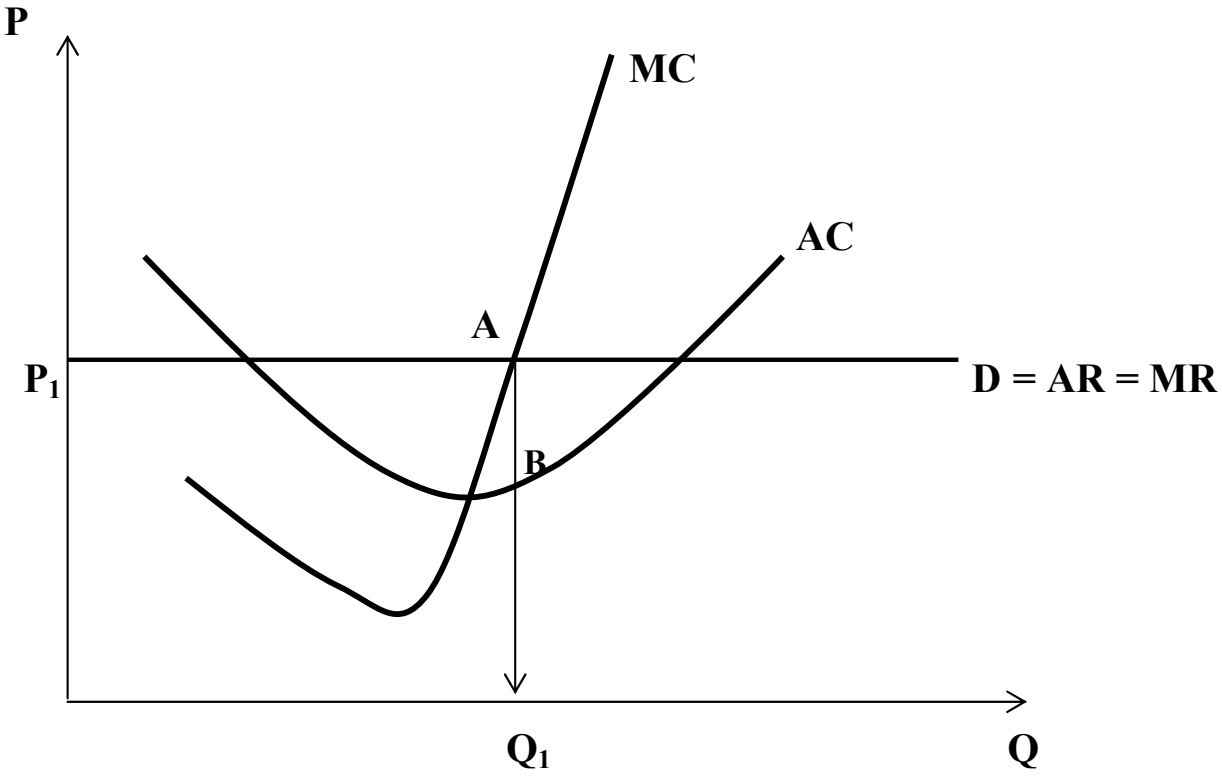
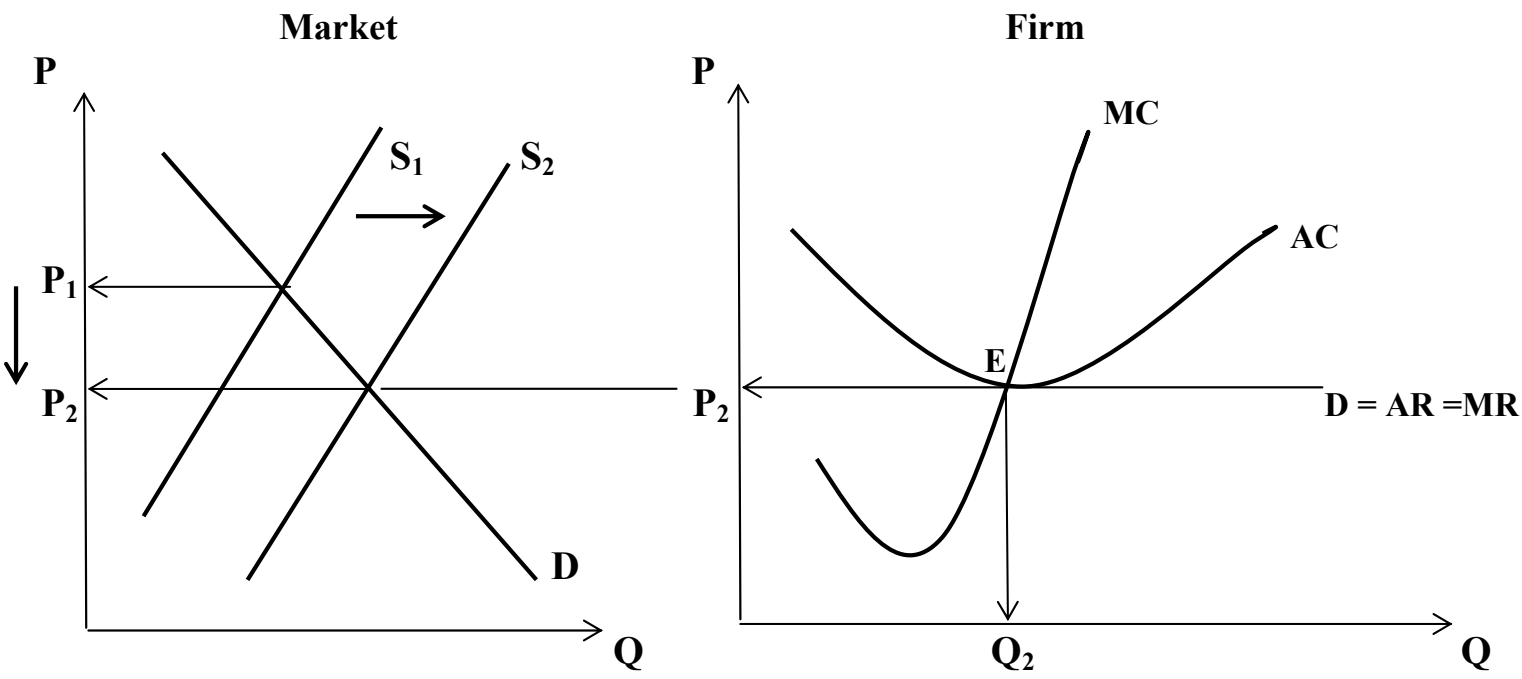


Diagram	*Explanation*
7 marks	**10 marks: 5 at 2 marks each**
• MC curve	• Equilibrium at point A: MC = MR and MC cuts MR from below.
• AC curve	• The firm produces Q1
• D = AR = MR	• Firm will sell this output at P1
• Point A	• Cost of production is at point B.
• P1	• Firm will earn SNP's because AR exceeds AC.
• Q1	
• Cost is at point B.	

2012 Continued

(ii) With the aid of labelled diagrams, explain the impact which the entry of new firms would have on the market **and** on the equilibrium position of the firm.



Market and Individual Firm

Market Diagram	Firm Diagram	Explanation
4 marks	**4 marks**	**10 marks: 5 at 2 marks each**
• S_1	• D = AR =MR (new)	• Market supply curve shifts out to the right.
• S_2	• P_2	• The market price falls
• P_1	• Q_2	• Individual firm's D/C falls / its price falls
• P_2	• Equilibrium point (E)	• Firm will now produce a smaller quantity.
		• Amount of SNP's earned will fall / are eliminated.

18 marks

2012 Continued

(c) Contrast the characteristics of perfect competition with monopoly under the following headings:

- Barriers to entry;
- Profits in the long run;
- Economies of scale;
- Price discrimination. (20)

Barriers to entry: 6 marks

Perfect Competition	Monopoly
No barriers to entry exist. • Because there is free entry and exit into the industry.	**Barriers to entry do exist.** • Firms cannot enter as they may face cost barriers /government regulation which prohibits free entry.

Profits in the long run: 6 marks

Perfect Competition	Monopoly
Only earns normal profit. • Because there is free entry and exit into the industry new firms will enter and the SNP will be eroded. • As AR = AC.	**Can earn SNPs.** • Firms cannot enter and so this firm can continue to earn SNPs. • AR can exceed AC.

Economies of scale: 4 marks

Perfect Competition	Monopoly
Tend not to benefit from E/S. • Because they produce only a small fraction of total output they cannot achieve E/S.	**May benefit from E/S.** • As there is only one firm in the industry they can expand and may benefit from E/S.

Price discrimination: 4 marks

Perfect Competition	Monopoly
Cannot practise price discrimination. • The firm does not have control over the price it charges because it must accept the market price.	**Could practise price discrimination.** • It has monopoly power or has control over the price charged or output produced and so can charge different prices to different consumers for the same good.

2011 Q2

(a) *Some Telecoms' analysts believe the main mobile operators in Ireland – Vodafone, O2, Meteor and 3 – control an oligopoly and have little reason to make the market really competitive.*

(The Irish Times, November, 2010)

(i) Outline **three** key features of an oligopolistic market.

Firms in an oligopolistic market may have objectives other than profit maximisation.

(ii) Outline **two** objectives firms in oligopoly may have, other than achieving the maximum level of profits.

(25)

(i) Outline **three** key features of an oligopolistic market.

1. Few Sellers in the industry.
Because of this each seller can influence the price of the commodity and /or the output sold.

2. Interdependence between firms.
Firms in oligopoly do not act independently of each other. They will each take into the account the likely reactions of their competitors, hence prices tend to be rigid.

3. Product Differentiation occurs.
The commodities which firms sell are close substitutes. Firms will engage in advertising to persuade consumers to buy their product rather than a competitor's product.

4. Barriers to entry.
These are common in an oligopolistic market as existing firms will wish to maintain their share of the market. Examples of barriers include: high costs of setting up in the industry, brand proliferation etc.

5. Collusion may occur.
Firms within the industry may meet to control the output in the industry and/or control prices e.g. OPEC.

6. Non-price competition is more common than price competition.
Due to the fear of how competitors will react, firms tend not to engage in price competition but rather they engage in non-price competition to gain consumers.

3 features x 5 marks each

2011 Continued

(ii) Outline **two** objectives firms in oligopoly may have, other than achieving the maximum level of profits.

1. Prevent government market intervention/interference
Firms may fear that the existence of supernormal profits would attract government intervention into the market and thereby restrict the firm's activities.

2. Discourage the entry of new firms into the industry
Firms may set prices at a low level which is intended to discourage the entry of new firms into the industry (limit pricing). By pursuing this policy they are forsaking higher present profits for potentially higher future profits.

3. Maximisation of sales / increased share of market
Once a minimum level of profit is earned to reward shareholders, provide funds for reinvestment etc. the firm may concentrate on maximising sales; increasing its share of the market. It may wish to achieve economies of scale; decrease the level of sales of rival firms; become the most dominant firm in the market.

4. Maintain adequate profits.

- The owners of the business may prefer to earn stable/moderate levels of profits rather than constantly striving for large supernormal profits as this is what they are satisfied with.
- Where the managers are not owners they may tend towards a more conservative approach rather than a dynamic drive to profit maximisation.

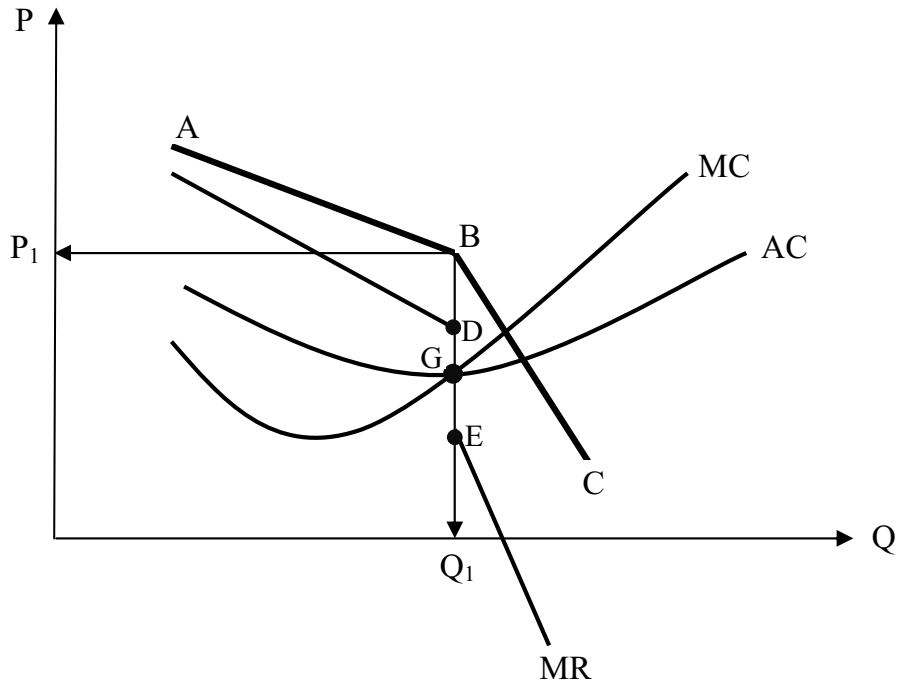
2 x 5 marks each

2011 Continued

(b) Using **one** clearly labelled diagram:
(i) Explain the shape of the 'kinked' demand curve facing a firm in oligopoly.
(ii) Explain the long run equilibrium position of this firm. *(25)*

Diagram: 9 marks

Price axis
Quantity axis
Kinked D/C
Distinct MR curve
MC
AC
P_1
Q_1
Point G



(i) Shape of the demand curve: **8 marks**

Demand curve - AB
If this firm increases its price others will leave their prices unchanged so this firm will lose many customers – this portion of the D/C is elastic.

Demand curve – BC
If this firm lowers its price others will match this price decrease so this firm will gain few additional customers – this portion of the D/C is inelastic.

(ii)
The long run equilibrium position of this firm: **8 marks**

1. Equilibrium occurs at point G where (a) MC = MR & (b) MC is rising.
2. The firm will produce Q_1 and sell this output at price P_1
3. The firm's cost of production is shown at point G.
4. Should costs rise between points D and E then market price tends to remain constant at P_1.
5. This firm is earning SNPs because AR exceeds AC o*r* barriers to entry exist.

2011 Continued

(c) It is suggested that consumers prefer price competition in the market place, yet there are benefits for consumers arising from non-price competition.

(i) Explain **two** reasons why consumers may prefer price competition.

(ii) Describe **two** benefits to consumers of non-price competition. (*25*)

(i) Reasons why consumers may prefer price competition

1. Lower prices / value for money
Consumers will benefit from availability of commodities at lower prices. Consumers will be able to get better value for their limited income.

2. Higher disposable income
With lower prices consumers will now have a higher disposable income, resulting in a better standard of living.

3. More choice
As consumers have a greater disposable income they can now choose how to spend this additional income.

4. Preferable to non-price competitive measure because:
- Consumers pay for non-price competitive measures e.g. advertising;
- Offers may be unwanted / of little value; tokens may go unused etc.

(ii) Benefits of non-price competition.

1. Consumer loyalty rewarded
Consumers can, by shopping in selected stores, receive loyalty points which can be used as they wish.

2. Stability in prices
Non-price competition means prices will not be constantly changing and so consumers do not have to worry that they are losing out on bargains / may be better able to budget.

3. Better quality commodities / services
Firms may improve the quality of their commodities; offer better service and/ or after sales service to consumers.

4. Allows consumers to save and / or avail of 'free' gifts
With regular shopping consumers can 'save' their loyalty points for those time periods when they incur additional expenses e.g. Christmas; Easter etc. Consumers may benefit from 'free' gifts from retailers e.g. free turkeys at Christmas.

5. More informed consumers
Through advertising consumers may acquire more information about products and services and so can make more informed choices.

25 marks (7+6+6+6)

2010 Q2

(a) (i) State and explain **three** assumptions underlying the theory of monopoly.
(ii) Outline **two** possible advantages of monopoly as a market structure. (25 marks)

(i) Assumptions of Monopoly

One firm in the industry
- One firm exists within the industry so there is no distinction between the firm and industry.
- One firm supplies the output in the entire industry.

Controls price *or* output
- A firm can control price or output but not both.
- If it sets the price the output produced will be determined by consumers.
- If it sets the output the price will be determined by the market.

Profit maximisation
- It is possible for the firm to earn SNP's in both the short run and long run.
- A firm aims to make maximum profits and it achieves this when MC = MR

Barriers to entry
- If a monopoly market structure is to continue into existence into the long run there cannot be freedom of entry into the industry.
- These barriers prevent the entry of new firms into the industry to threaten the position of the monopolist.

3 points at 5 marks each. State: 2 marks. Explain: 3 marks.

(ii) Possible advantages of monopoly as a market structure

Economies of scale
Production on a large scale may help the firm benefit from economies of scale and these cost savings may be passed on to the consumer in the form of lower prices.

Guarantee supply of product / service
The supply of the product / service may be guaranteed and provided where profit is minimal (e.g. a state monopoly) so consumers benefit e.g. provision of bus services in areas of low population.

Employment
As there is no competition employees have greater security of employment/may benefit from preferential conditions of employment /better rates of pay and pensions.

Reduced use of scarce resources
There may be less duplication in the provision of products / services. There may be less need for competitive advertising so society's resources are not wasted. Certain services may be best provided by one provider e.g. train tracks /electricity grid so as to avoid duplication.

Potential for innovation/ R & D
The (supernormal) profits that monopolies may make could be used for investment in R&D and secure their dominance in the market. Inventors/creators need patent protection otherwise they may not invent.

2 points at 5 marks each. State: 2 marks. Explain: 3 marks.

2010 Continued

(b) (Irish Rail) is the state monopoly in the provision of rail transport in Ireland. It operates a system of price discrimination in setting some of its prices.

(i) Explain the underlined term, giving **one** example as practiced by Iarnród Eireann.

(ii) State and explain **three** conditions necessary for price discrimination to take place. (20 marks)

Price Discrimination: **6 marks**

When a good or service is sold to different consumers / different markets at varying ratios between marginal cost and price *or* the price difference is not due to difference in the cost of production.

Example: **2 marks**

- A student being charged a lower rate for travel from Cork to Dublin than another passenger
- Consumers being charged different rates for peak and off-peak travel.

(ii) State and explain **three** conditions necessary for price discrimination to take place.

1. Monopoly Power.
If freedom of entry existed into the industry, competitors would enter where the firm was charging the higher price and earning SNP and this would continue until only normal profit was being earned.

2. Separation of markets.
The good bought in the low priced market cannot be offered for resale in the higher priced market. If it was not possible to separate the markets then the above would occur until no price difference existed.

3. Different consumer price elasticities of demand.
Consumers with the high price elasticity of demand are charged the lower prices for their goods e.g. students are assumed to have lower incomes and so are not in the position to pay the full price for certain goods and services.

4. Consumer Indifference.
The difference in price may be so small that consumers are indifferent and so don't mind paying the slightly higher price.

5. Lack of awareness by consumers.
Consumers may be unaware that the good is available elsewhere at a lower price.

6. Consumer attitudes to the goods.
A consumer may be willing to pay a higher price for a good which s/he considers to be in fashion / provide status e.g. people and their desire for 'branded' products.

3 points at 4 marks each. State: 2 marks. Explain: 2 marks.

2010 Continued

(c) Using suitably labeled diagram(s), compare the long run equilibrium position of the monopoly firm with that of a perfectly competitive firm (assuming both operates under the same cost conditions) using the following headings:

- Price and Output;
- Profits;
- Efficiency. (30 marks)

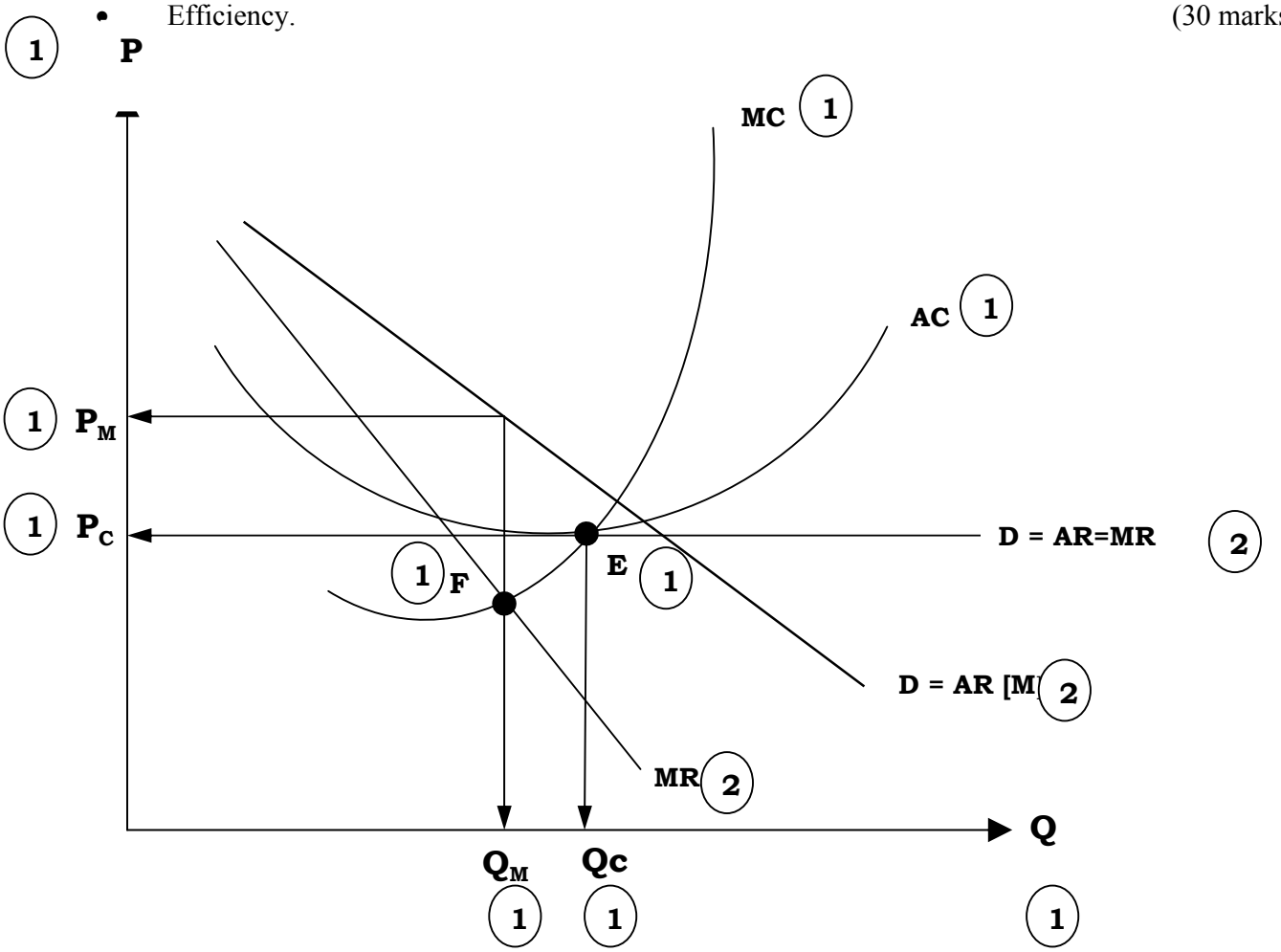


Diagram
10 items at 1 mark each + 3 items at 2 marks each = 16 marks.

	Comment	Marks
Price	A firm in a monopoly position sells its output at a <u>higher price</u>– P_m rather than P_c.	**3 marks**
Output	A firm in a monopoly position produces a <u>smaller output</u> than in perfect competition – Q_m rather than Q_c.	**3 marks**
Profits	Because AR = AC **(1)** a firm in PC earns normal profit **(1).** **(2)** Because AR > AC **(1)** a firm in monopoly can earn SNPs. **(1).** **(2)**	**4 marks**
Efficiency	A firm in PC produces at the lowest point of AC **(1)** and so is efficient **(1)**. **(2)** A monopoly may not produce at the lowest point of AC **(1)** and so maybe inefficient **(1).** **(2)**	**4 marks**
		14 marks

2009 Q2

(a) (i) State and explain the assumptions underlying the theory of **imperfect competition**.

1. **There are many buyers in the industry.**
   - An individual buyer, by his/her own actions, can't influence the market price of the goods.
2. **There are many sellers in the industry.**
   - An individual seller can influence the quantity sold by the price it charges for its output.
3. **Product differentiation exists.**
   - The goods, supplied by the producer, are not homogenous but are close substitutes.
   - Firms use branding to distinguish their products from one another.
4. **Freedom of entry and exit.**
   - No barriers to entry exist within the industry.
   - It is possible for firms to enter/leave the industry as they wish.
5. **Reasonable knowledge.**
   - Within the industry each firm has reasonable knowledge of profits made by other firms.
   - Consumers have a reasonable knowledge of the prices being charged for different products.
6. **Each firm attempts to maximise profits.**
   - Firms produce where MC = MR
   - Each firm will attempt to minimise costs of production.

5 points @ 4 marks each graded

(ii) Outline the advantages imperfect competition may offer to consumers.

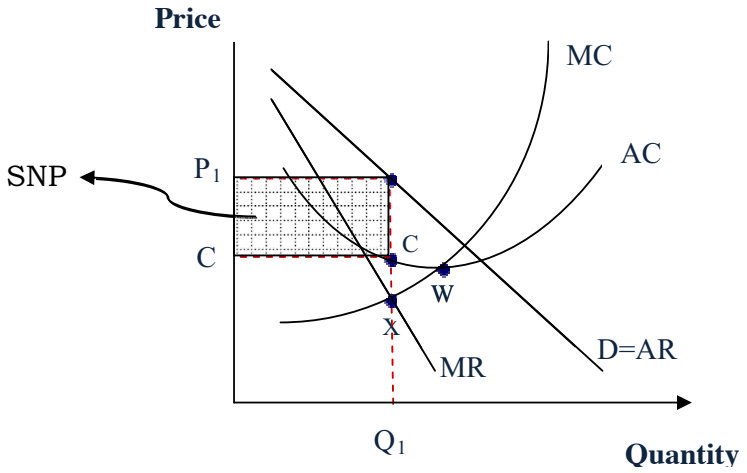
- **Greater choice**
  Goods are not homogenous, but are close substitutes, therefore consumers have a greater choice of goods/services.
- **Normal Profit**
  In the long-run consumers are not being exploited as the firm is earning normal profits.
- **Lower prices**
  Competition between firms in the industry will help lower prices and make them more competitive for consumers.
  Some items such as newspapers, magazines, sporting and music events may be cheaper due to the revenues earned by the supplier from competitive advertising.
- **Innovative goods/services**
  Innovation is encouraged as firms will constantly strive to gain a competitive edge over their rivals, hence, consumers get the benefit of modern up-to-date goods/services.
- **Access to information**
  Consumers may have more information available to them because of the extensive competitive advertising used within the industry.

2 points @ 5 marks each graded

2009 Continued

(b) Explain with the aid of a diagram in each case the conditions for a profit maximising firm to be in equilibrium under imperfect competition:

(i) **In the short run**



Marking of Diagrams

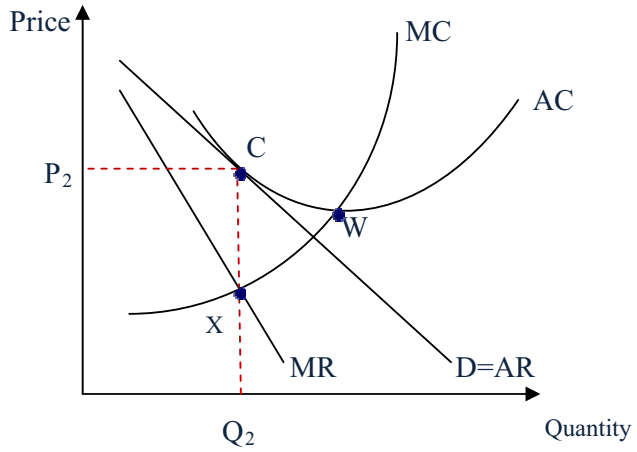
Short Run	Long Run
P & Q	
MR	
D=AR	AC = AR:
AC	Correct equilibrium:
MC	Lowest point of AC
Correct equilibrium	
7 marks	**5 marks**

Explanation of short run equilibrium:

- Equilibrium/ Profit maximisation occurs at point X where MC = MR (*MC is rising and cuts MR from below*).
- The level of output produced is Q_1 and the price the firm sells this output at is P_1
- The average cost of production is shown at point C / not producing at lowest point of AC.
- This firm is earning super normal profits because AR > AC.

4 points @ 2 marks each = 8 marks

(ii) **In the long run**.



Explanation of long run equilibrium:

- Equilibrium / profit maximisation occurs at point X where MC = MR (*MC is rising and cuts MR from below*).
- The level of output produced is Q_2 and the price the firm sells this output at is P_2.
- The average cost of production is shown at point C.
- This firm is earning normal profits because AR = AC.
- The firm is not producing at the lowest point of AC/ this indicates that the firm is wasting scarce resources.

5 points @ 2 marks each = 10 marks

2009 Continued

(c) 'Major food retailers in the Irish market, such as Aldi, Dunnes, SuperValu and Tesco, operate under conditions of Imperfect Competition'.

Do you agree with this statement?
Give reasons for your answer, referring to major food retailers in the Irish market mentioned above.

No, I do not agree with this statement. It is an **oligopolistic market** because:

1. The industry is dominated by a few large retailers/multiples, who hold a major share of the market such as Tesco, Dunnes Stores, Superquinn etc.
2. New firms may find it difficult to enter due to barriers to entry such as economies of scale, brand proliferation and control by existing firms of the channels of distribution.
3. Mutual interdependence between the firms: Firms interact by taking account of each others marketing / pricing strategies. They are concerned with maintaining or increasing their share of the total market e.g. the current Tesco and Dunnes Stores advertising / pricing campaigns.
4. The products sold are close substitutes: Competitive advertising is important as is heavy 'product loyalty' promotion. Various gimmicks are used to attract customers. Sellers also use 'brand names' extensively to maintain consumer loyalty.

2 reasons @15 marks graded

(Development must refer to the food retailers in the Irish market)

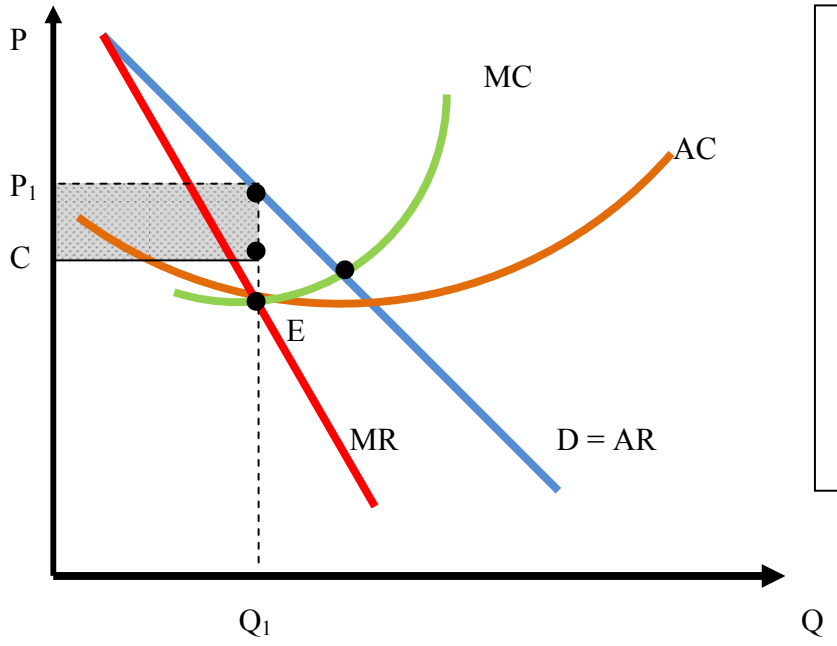
Note:
Arguments for imperfect competition from a local market point of view were also accepted

2008 Q2

(a) Explain with the aid of a diagram, the long run equilibrium position for a monopoly firm which seeks to maximise profits. (25 marks)

Diagram: 10 marks graded

(a)



- Price axis
- Quantity axis
- P_1
- Q_1
- C
- MC
- AC
- D = AR
- MR
- E

1. **Equilibrium**
   - Occurs at point E where
   - MC = MR and MC is rising and cuts MR from below.

2. **Price charge & /Output produced**
   - The firm produces output Q_1 and sells it at price P_1 on the market

3. **Cost of production**
   - The cost of producing this output shown at point C.
   - Because AR=AC this represents normal profit.

4. **Super Normal Profits.**
   - This firm is earning SNP's – represented by the shaded area above.
   - They are earning SNP's because AR > AC and
   - they can continue to earn SNP's because barriers to entry exist..

5. **Waste of Scarce Resources**
   - Because the firm is not producing at the lowest point of the AC curve it is wasting scarce resources.

5 points of explanation at 15 marks graded.

2008 Continued

(b) (i) Define price discrimination.
(ii) Explain **three types** of price discrimination, using suitable examples in each case (20 marks)

When the same goods or services are sold to different consumers (in different markets) at varying ratios between marginal cost and price/the price difference is not due to a difference in the cost of production.

Definition: 8 marks graded.

(ii) Explain **three types** of price discrimination, using suitable examples in each case

Type	Explanation	Example
1st Degree	• A monopolist attempts to remove consumer surplus. • A monopolist identifies those consumers who are prepared to pay a higher price and consequently charges them that higher price. • This type of price discrimination can occur in one-to-one confidential services.	Visiting a medical consultant / solicitor
2nd Degree	• A monopolist gives discounts for bulk buying	Night Saver Electricity Magazine subscriptions 3 for 2 offers
3rd Degree	• Consumers have different price elasticities of demand. • Consumers with inelastic demand pay a higher price than consumers with elastic demand	Business air travel vs. leisure air travel Special rates / prices for students and old age pensioners.

3 explanations at 4 marks each graded (must include example).

2008 Continued

(c) (i) State and explain **three** barriers to entry facing entrants to a monopoly market.

(ii) Explain how deregulation could affect:
(i) Consumers of the good/service;
(ii) Employees in the industry;
(iii) Profits of existing firms. (30 marks)

(i) State and explain **three** barriers to entry facing entrants to a monopoly market.

1. **Legal / Statutory Monopoly**
Other firms may not be allowed into the industry because the government confers on a firm the sole right to supply a particular good or service e.g. Iarnród Éireann.

2. **Ownership of a patent / copyright**
If a firm has the sole right to a manufacturing process then no other firm can compete with it. Other firms are not allowed to use this patent until the time period for it has expired.

3. **Ownership of raw materials**
A firm may have complete control over the source of essential raw materials i.e. an oil drilling company.

4. **Large capital investment**
   - In some industries the minimum size of a firm required to operate efficiently is so large that there is no room for competitors once one firm has established itself.
   - Competitors are discouraged from entering because of the high initial start-up costs.

5. **Trade agreements /collusion/cartels**
By entering trade agreements with other firms, a firm can share out the market so that no competition exists within its segment of the market.

6. **Mergers / takeovers**
A firm may ensure its survival by merging / taking over other rival firms in the same line of business, such that it becomes a monopolist and no competition exists within the industry.

7. **Monopolies based on fear, force or threats**
An individual / firm may stop other individuals/firms providing similar goods/services by means of threats/force /instilling fear into potential entrants i.e. the supply of illegal drugs.

8. **Brand proliferation**
A firm may gain monopoly power if, through its advertising, consumers are convinced that there is no suitable alternative to its particular brands.

3 barriers at 5 marks each graded.

2007 Q2

(a) (i) A firm operating under conditions of perfect competition is a **'price taker'.**
Explain the concept of being a 'price taker'**.**

- This means that the individual firm must accept the price as it is set on the market.
- Each firm supplies such a tiny fraction of the market it cannot influence the market price.

6 marks graded.

(ii) Explain, with the aid of labelled diagram, the equilibrium position of a firm in **short run perfect competition.** (25 marks)

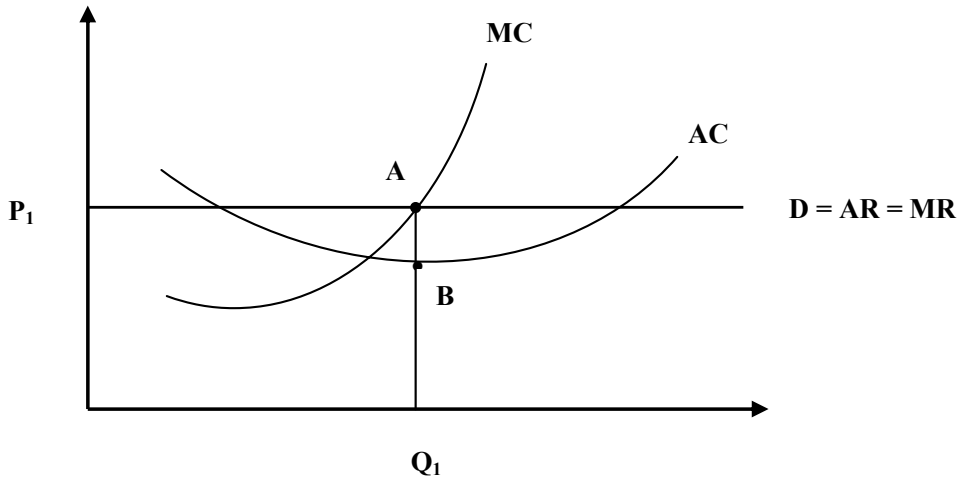


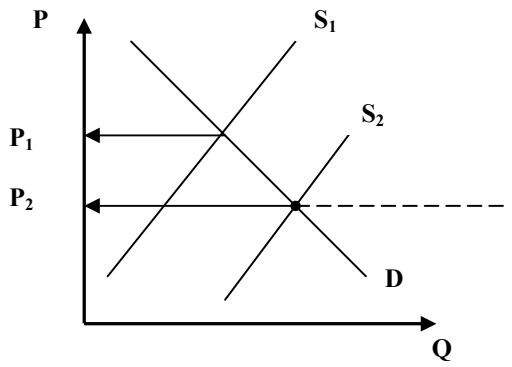
Diagram	*Explanation*
• MC curve	• At point A: MC = MR
• AC curve	• The firm produces Q1
• D = AR = MR	• Firm will sell this output at P1
• Point A	• Firm will earn SNP's because AR > AC.
• P1	
• Q1	
• Cost is at point B.	

19 marks graded.

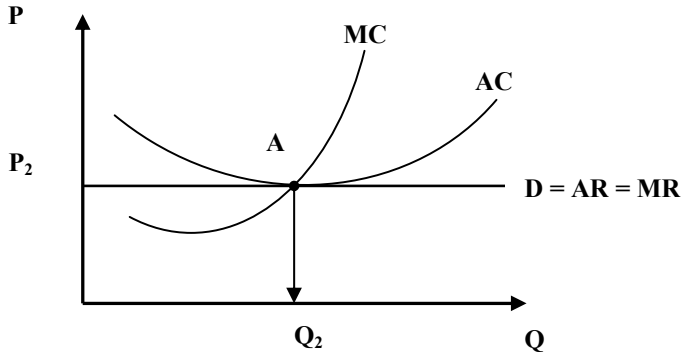
2007 Continued

(b) With the aid of a labelled diagram (s), explain the impact which the entry of new firms would have on the market **and** on the equilibrium position of this firm. (25 marks)

MARKET



FIRM



Market and Individual Firm.

Mkt. Diagram	Firm Diagram	Explanation Key Points
	• P axis	• Market supply curve shifts out to the right.
	• Q axis	• Market price falls / the firm's D/C falls
• D	• AC	• Firm will now produce a smaller quantity.
• S1	• MC	• Amount of SNP's earned will fall / be eliminated.
• S2	• D = AR = MR	
• P1	• P2	
• P2	• Q2	
	• Equilibrium point	

25 marks graded.

2007 Continued

(c) (i) Many firms today engage in **product differentiation**. Explain this underlined term showing, with suitable examples, how it can be achieved.

(ii) Explain the effect of product differentiation on the AR and MR curves of a firm, which previously operated under conditions of perfect competition. (25 marks)

(i) 17 marks graded.

Product Differentiation

The goods which are produced are **close substitutes** / **similar goods** / **not identical goods**.

Product differentiation can be achieved by:

Explanation	Example
Branding Establishing different and distinctive brand names for the products	Nike, Addidas, Reebok
Competitive Advertising Creating differences in the products in the minds of consumers e.g. through packaging which clearly distinguishes one product from another	Daz v. Surf Kellogs Cornflakes
Product innovation Firms develop their product further (add value) so that it is better or more advanced than that of competitors.	Lyons pyramid tea bags; Avonmore – super milk. Fairy detergent – anti bacterial agents.

(ii) 8 marks graded.

Effect of product differentiation on the AR and MR curves of a firm

As a result of product differentiation:

- A firm's AR will be downward sloping from left to right.
  As products are close substitutes:
  If a firm lowers price it can expect to attract some but not all customers from other firms; if the firm increases prices it may expect to lose some but not all customers – so the firm will sell less at higher prices and more at lower prices. Consequently the demand curve (AR curve) facing the firm is downward sloping.
- If AR is falling then MR is also falling and lies below AR. To encourage more customers the firm must drop the price. The AR Curve is falling. The revenue from the increased sales will be reduced by the falling revenue on each unit previously sold at a higher price but now at a reduced price.

2006 Q2

(a) State and explain **THREE** key features of an oligopolistic market. *(15 marks)*

1. Few Sellers in the industry.
Because of this each seller can influence the price of the commodity/or the output sold.

2. Interdependence between firms.
Firms in oligopoly do not act independently of each other. They will each take into the account the likely reactions of their competitors. Hence **prices tend to be rigid**.

3. Product Differentiation occurs.
The commodities which firms sell are close substitutes. Firms will engage in advertising to persuade consumers to buy their product rather than a competitor's product.

4. Barriers to entry.
These are common in an oligopolistic market as existing firms will wish to maintain their share of the market. Examples of barriers include: high costs of setting up in the industry, brand proliferation etc.

5. Collusion may occur.
Firms within the industry may meet to control the output in the industry and/or control prices e.g. OPEC.

6. Non-price competition is more common than price competition.
Due to the fear of how their competitors will react firms tend not to engage in price competition but rather they engage in non-price competitive measures to gain consumers.

7. Pursuing objectives other than profit maximisation.
Firms may have objectives other than maximizing their profits i.e. increasing their share of the total market, limiting profits to discourage government investigation, satisfaction with the existing level of profits (e.g. in a small family business)

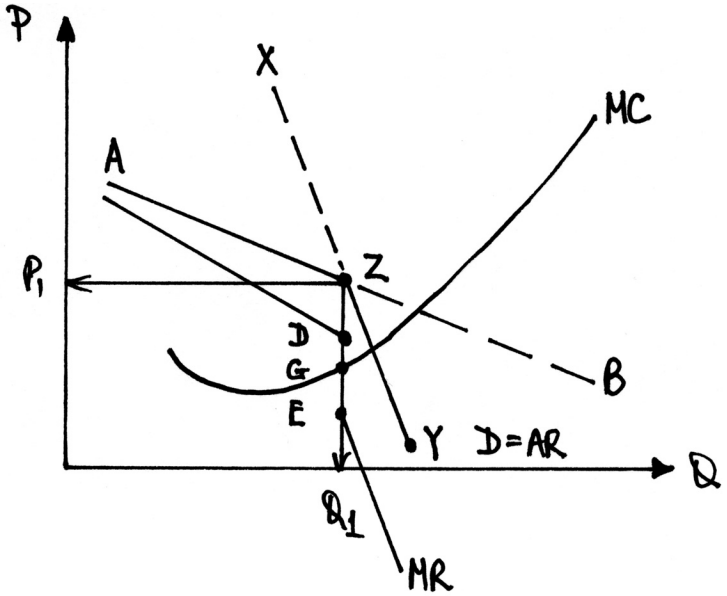
3 features x 5 marks each = 15 marks graded
Must state TWO of the first THREE listed features.

(b) With the aid of **ONE** clearly labelled diagram:

(i) Explain the shape of the 'kinked demand curve' under oligopoly.
(ii) Explain the long run equilibrium position of a firm facing a 'kinked demand curve'.
(iii) Explain what is meant by the term 'rigidity of prices' under a 'kinked demand curve'. *(35 marks)*

2006 Continued

Marking scheme: Diagram – 9 marks graded



(i) Shape of the demand curve: ***8 marks graded***

- ***This firm faces an ELASTIC D/C - demand curve AB*** If a firm increases its price other firms leave their prices unchanged - so this firm will lose many customers.
- ***The firm faces an INELASTIC D/C - demand curve XY*** ***If*** a firm lowers its price other firms will match this price decrease - the firm will gain few additional customers.

(ii) the long run equilibrium position of this firm: ***10 marks graded***

- Equilibrium is achieved where (a) MC = MR & (b) MC is rising.
- This occurs at point G in the diagram.
- The firm will produce Q_1 and sell this output at price P_1
- Reference to unchanging prices: should costs rise between points D and E then market price tends to remain constant at P_1.
  Reference to profits: as barriers to entry may exist, this firm can earn SNPs if AR exceeds AC.

(iii) Explain what is meant by the term 'rigidity of prices' under a 'kinked demand curve'

8 marks graded

- This occurs when prices tend not to change when costs change in an oligopolist Industry.
- This is because firms are fearful of the likely reaction of their competitors should they change prices.
- Between points D & E as MR is constant, if MC changes prices tend not to change.

2006 Continued

(c) (i) Explain **THREE** types of collusion which may occur in an oligopolistic market.
(ii) Do you believe that the Irish retail market for banking services (e.g. personal current accounts) operates under oligopolistic conditions? Explain your answer. *(25 marks)*

(i)

1. Pricing Policy / Limit Pricing
One firm, with the tacit agreement of others, could reduce prices forcing unwanted entrants out of the industry.

2. Production/output policy
Firms could join together to limit output to certain agreed amounts.

3. Sales Territories.
Firms could divide up the markets between them and agree not to compete in each other's market segments.

4. Refusal to supply firms.
Firms may not supply those firms who buy from firms not in the cartel.

5. Implicit Collusion
Each firm recognises that behaving as if they were branches of a single firm their joint profits would be higher. So firms do not provoke their rivals by cutting prices. Instead they try to increase market share by engaging in non-price competitive measures.

3 forms of collusion at 5 marks each graded.

(ii) Do you believe that the Irish retail market for market for banking services (e.g. personal current accounts) operates under oligopolistic conditions? Explain your answer. *(25 marks)*

The retail market for personal banking services in Ireland operates under oligopolistic conditions because:

1. **Few Sellers**.
   There are relatively few banks providing personal services within the market e.g. AIB, Bank of Ireland etc. Even with the entry of new banks these two dominate the market.

2. **Interdependence between firms.**
   The banks do not act independently of each other. They closely take into the account the likely reactions of their competitors to any changes they may make.

3. **Close substitutes.**
   The services provided are very close substitutes. There is competitive advertising and heavy 'product loyalty' promotion. Various gimmicks are used to attract customers.

2 reasons at 5 marks each graded.

2005 Q2

(a) State and explain the assumptions underlying the theory of imperfect competition. *(20 marks)*

1. There are many buyers in the industry.
   - Each buyer acts independently.
   - No individual buyer, by his/her own actions, can influence the market price of the goods.

2. There are a large number of sellers within the industry.
   - Each seller acts independently.
   - An individual seller *can* influence the quantity sold by the price it charges for its output.

3. Product Differentiation exists.
   - The goods, which are supplied by the producers, are not identical goods but are close substitutes.
   - Firms try to establish in the minds of the public that the goods are not perfect substitutes by selling their goods under brand name.

4. There is freedom of entry into and exit from the industry.
   - Firms already in the industry cannot prevent new firms from entering the industry.
   - No barriers to entry exist within the industry.
   - It's possible for firms to enter/leave the industry as they wish.

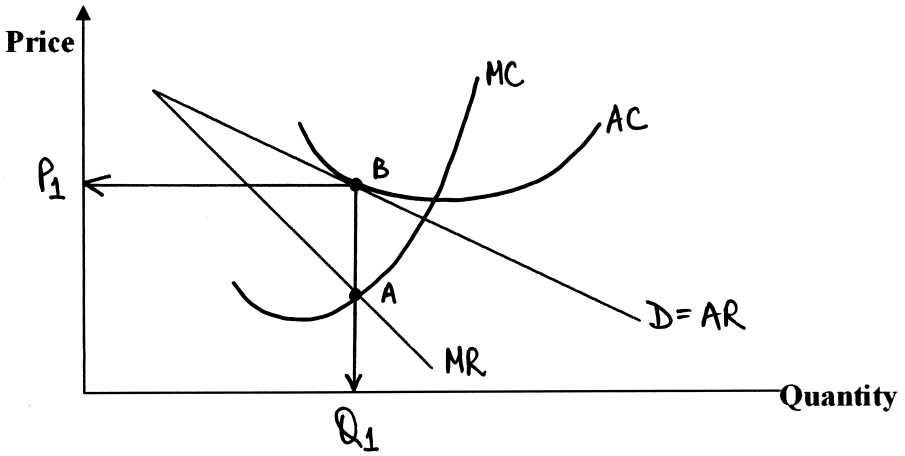
5. Reasonable knowledge as to profits made by other firms.
   - In the industry everyone concerned has reasonable knowledge as to profits made by other firms.
   - Consumers may not be fully aware of the prices being charged for different products.

6. Each firm tries to maximise profits.
   - The sole aim of each firm is produce that quantity which will maximise its profits in the short run.
   - Hence the aim of a firm is to minimise costs.
   - It will produce where MC = MR.

5 points at 4 marks graded.

(b) (i) Explain with the aid of a clearly labelled diagram the long run equilibrium position of a firm in imperfect competition.
(ii) State and explain **ONE** feature of this firm in long run equilibrium which would be common to a firm in long run equilibrium under **perfect competition**.
(iii) State and explain **ONE** feature of this firm in long run equilibrium which would be common to a firm in long run equilibrium under **monopoly**. *(40 marks)*

(b) (i) The long run equilibrium position of a firm in imperfect competition. **Diagram: 16 marks**



8

2005 Continued

Explanation of long run equilibrium:

1. Equilibrium occurs at point A where MC = MR (*and MC is rising and cuts MR from below*).
2. The level of output produced is Q_1 and the price the firm sells this output at is P_1.
3. The average cost of production is shown at point B.
4. This firm is earning normal profits because AR = AC.
5. The firm is not producing at the lowest point of AC (point C).
   This indicates that the firm is wasting scarce resources.

(b) (ii) and (iii)

Perfect Competition	Monopoly
1. Both earn Normal Profit Because AR = AC.	1. Both wasteful of resources Neither produces at the lowest point of average cost:
	2. Downward sloping D/C Both must lower P to increase Q_D
	3. Price is greater than MC Indicates than more of the good could be produced.

Explanation of long run equilibrium and Part (b) (ii) and (iii): 24 marks graded.

(c) Consider the retail market for petrol.
Do you believe that this market operates under conditions of imperfect competition?
State reasons for your answers. *(15 marks)*

The retail market for petrol operates under conditions of imperfect competition because:

1. There are many sellers of petrol within the market e.g. Shell, Statoil, Maxol.
2. The products sold are close substitutes. There is competitive advertising and heavy 'product loyalty' promotion. Various gimmicks are used to attract customers. Sellers also use 'brand names' extensively to maintain consumer loyalty.
3. Each seller can influence the demand for petrol by altering the price as consumers are becoming far more sensitive to the price differences for petrol.

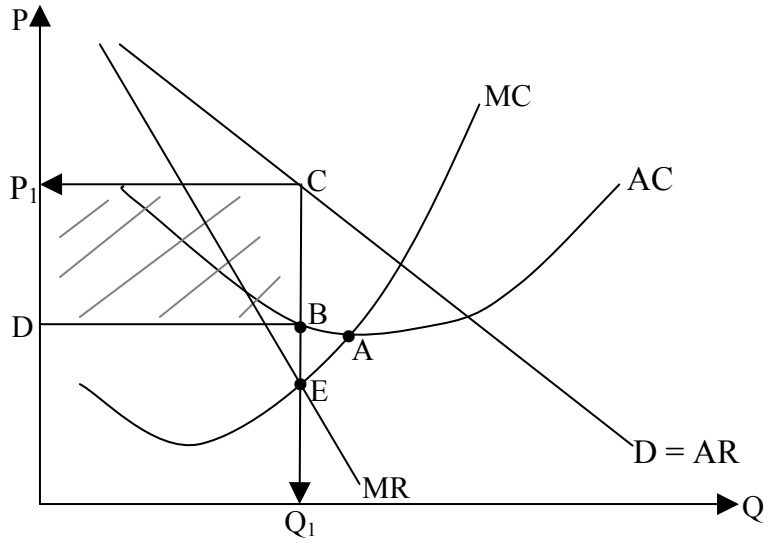
15 marks graded.

Note: Arguments for oligopoly market from a national point of view were also accepted.

2004 Q1

(a) Explain, with the aid of a diagram, the long run equilibrium position of a monopoly firm (25 marks)

Diagram



Marking Scheme
9 marks: 9 x 1 mark each

- **Price axis**
- **Quantity axis**
- **D = AR:**
- **MR**
- **AC**
- **MC**

- **Point E / Equilibrium point**
- **Output : Q_1**
- **Price: P_1**

Explanation: 16 marks graded

1. Equilibrium
- **Occurs at point E where**
- **MC = MR [and MC is rising]**

2. Price / Output
- **The firm produces Q1**
- **and sells it at P1**

3. Cost / Normal profit
- **The cost of producing this output / normal profit is shown at point *B***

4. SNP's
- **The firm is earning SNP's of *P_1CBD***
- **because AR > AC)**
- **or they can continue to exist due to barrier to entry.)**

5. Use of Scarce Resources
- **The firm is not producing at the lowest point of AC (point A)**
- **hence this firm is wasting scarce resources / inefficiency**

2004 Continued

(b) If firms wish to enter a monopoly market they will face barriers to entry. Explain THREE **of these barriers.** ***(15 marks)***

3 points x 5 marks graded.

1. Legal / Statutory Monopoly.
Other firms may not be allowed into the industry because the government confers on a firm the sole right to supply a particular good or service i.e. Aer Rianta.

2. Ownership of a patent / copyright.
If a firm has the sole right to a manufacturing process then no other firm can compete with it. Other firms are not allowed to use this patent until the time period for it has expired.

3. Sole rights to raw materials.
A firm may have complete control over the source of essential raw materials i.e. an oil drilling company.

4. Large capital investment.
- In some industries the minimum size of a firm required to operate efficiently is so large that there is no room for competitors once one firm has established itself.
- Competitors are discouraged from entering because of the high initial start-up costs.

5. Trade agreements /collusion – cartels.
By entering trade agreements with other firms, a firm can share out the market so that no competition exists within its segment of the market.

6. Mergers / takeovers
A firm may ensure their survival by merging / taking over other (rival) firms in the same line of business - such that it becomes a monopolist and no competition exists within the industry.

7. Monopolies based on fear, force or threats
An individual / firm may stop other individuals/firms providing similar goods/services by threats/force – instilling fear into potential entrants i.e. the supply of illegal drugs.

8. Brand proliferation
A firm may gain monopoly power if through its advertising consumers are convinced that there is no suitable alternative to their particular brands

2004 Continued

(c) If a monopoly firm wishes to engage in price discrimination, certain conditions must apply. State and explain THREE **of these conditions.** ***(15 marks)***

1. Monopoly Power.

If freedom of entry existed into the industry, competitors would enter where the firm was charging the higher price and earning SNP and this would continue until only normal profit was being earned.

2. Separation of markets.

This is, so that the good bought in the low priced market cannot be offered for resale in the higher priced market. If it was not possible to separate the markets then the above would occur until no price difference existed.

3. Different consumer elasticities of demand.

So that consumers with the high price elasticity of demand are charged the lower prices for their goods e.g. students are assumed to have lower incomes and so are not in the position to pay the full price for certain goods and services.

4. Consumer Indifference.

The difference in price may be so small that consumers are indifferent and so don't mind paying the slightly higher price.

5. Lack of awareness by consumers.

Consumers may be simply unaware that the good is available elsewhere at a lower price.

6. Consumer attitudes to the goods.

A consumer may be willing to pay a higher price for a good which they consider to be in fashion / provide status e.g. young people and their desire for 'branded' products.

3 points x 5 marks graded.

2004 Continued

(d) Irish semi-state transport companies are facing increasing competition.
Discuss ONE possible **advantage and** ONE possible **disadvantage of this development for:**

- **Consumers** AND
- **Employees of semi-state transport firms.** ***(20 marks)***

CONSUMERS

Advantages	Disadvantages
1 x 5 marks graded.	**1 x 5 marks graded.**
1. Quality of services. **The competition may force the semi-state companies to improve the quality/efficiency of the service provided.**	**1. Loss of non-profit making services.** **Non-profit making services may be discontinued by the semi-state company in an effort to reduce costs.**
2. More competitive prices. **Increased competition may force the firm to offer consumers more competitive prices.**	**2. Possible reduction in safety standards.** **In the drive towards increased efficiency shortcuts may be taken resulting in a possible decline in safety.**
3. Increased choice / availability of services. **Consumers may now be able to avail themselves of a wider choice of services.**	**3. Decline in standards of service.** **The service provided by the semi-state company may deteriorate in quality in an effort to save costs.**
	4. Disruption to supply of service. **The fear of workers about the effects of competition may cause them engage in industrial disputes disrupting the service for consumers.**

EMPLOYEES OF SEMI-STATE TRANSPORT COMPANIES

ADVANTAGES	DISADVANTAGES
1 x 5 marks graded.	**1 x 5 marks graded.**
1. More motivated workforce. **Competition may pressurise the workforce to become more innovative in their jobs**	**1. Loss of job / reduced job security.** **The biggest risk is the loss of their job through rationalisation of services.**
2. Reward/Incentive for innovation. **If the semi-state firm can meet the challenges of competition, employees may reap more rewards for their innovation i.e. higher bonuses.**	**2. Changes in conditions of employment / Loss of benefits** **The firm may change the conditions of employment for its employees resulting in a worsening of these.**
3. Provision of extra services. **It may now be possible for the company to aggressively pursue its share of the market, without state restrictions, ensuring a growth in employment / additional job security.**	**3. Curtailment in Pay / Pensions ↑'s** **The firm may limit the pay / pension increases due to its employees.**
4. Opportunities from settlement packages **Workers might take the opportunity to change career / use their settlement packages to invest / start a business.**	

2003 Q1

(a) Outline **THREE** key features of an oligopolistic market. (20 marks)

1. Few Sellers dominate the industry.
Because of this sellers can influence the selling price of the commodity/or the output sold.

2. Interdependence of firms.
Firms in oligopoly do not act independently of each other. They will each take into the account the likely reactions of their competitors; hence prices tend to be rigid.

3. Product Differentiation occurs.
The commodities, which the firms sell, are close substitutes. Firms will engage in advertising to persuade consumers to buy their product rather than competitors' products.

4. Barriers to entry.
These are common in an oligopolistic market, as existing firms will wish to maintain their share of the market. Examples of such barriers include: high costs of setting up in the industry, brand proliferation etc.

5. Collusion may occur.
Firms within the industry may meet to control the output in the industry and/or control prices e.g. OPEC.

6. Non-price competition is more common than price competition.
Due to fear of how their competitors will react firms tend not to engage in price competition but rather engage in non-price competitive measures to gain consumers from rival firms.

7. Pursuing objectives other than profit maximisation.
Firms may have objectives other than maximizing of profits i.e. increasing their share of the total market, limiting profits to discourage government investigation, satisfaction with the existing level of profits (e.g. in a small family business)

3 features x 6 marks each graded
Must state TWO of the first THREE listed points.

2003 Continued

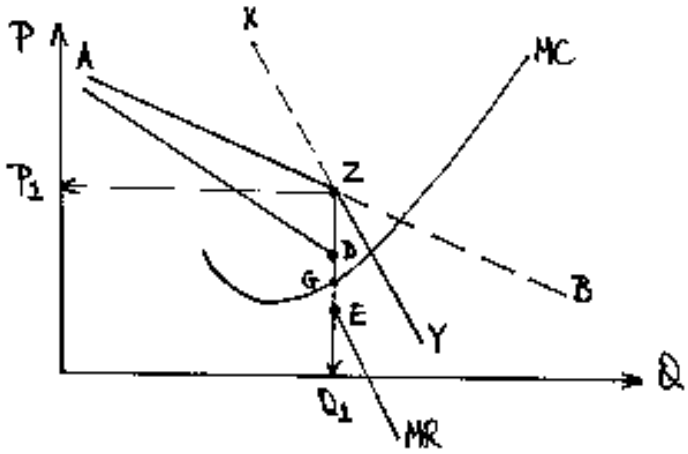
Examples:
Petrol/Oil companies - Shell, Statoil, Esso etc.
Motor Car Manufacturers - Ford, General Motors, Nissan etc.
Retail Banks - AIB, Bank of Ireland etc.
Supermarkets - Tesco, Dunnes Stores, Superquinn etc.
Detergent Manufacturers - Proctor & Gamble, Smith & Nephew.

1 example x 2 marks = 2 marks

(b) With the aid of ONE clearly labelled diagram:
(i) Explain the shape of the demand curve facing a firm in oligopoly.
(ii) Explain the relationship between this demand curve and the firm's marginal revenue curve.
(iii) Explain the long run equilibrium position of this firm. (40 marks)

Diagram

Axes	**2 marks**
Kinked D/C:AZY	**2 marks**
MR	**2 marks**
MC	**2 marks**
Equilibrium: P1 & Q1	**2 marks**



(i) Shape of the demand curve: ***12 marks graded***

- If a firm increases its price other firms leave their prices unchanged - so this firm will lose many customers. This firm faces an ELASTIC D/C - demand curve AB.
- If a firm lowers its price other firms will match this price decrease - the firm will gain few additional customers. Hence the firm faces an INELASTIC D/C - demand curve XY.
- If the price leader sets price at point Z then the firm faces a distinct demand curve: AZY, kinked at point Z.

2003 Continued

(ii) Relationship between this D/C and the firm's marginal revenue curve: ***8 marks graded***

- Because the D/C is kinked the firms MR curve consists of 2 distinct parts
- and is constant between point D and point E**,** so irrespective of what happens to costs the firms revenue does not change.

(iii) The long run equilibrium position of this firm: ***10 marks graded***

- Equilibrium is achieved where (a) MC = MR and (b) MC is rising.
  This occurs at point G in the diagram.
- The firm will produce Q_1 and sell this output at price P_1.

Reference to profits position
As barriers to entry may exist this firm can earn SNP's – if AR exceeds AC.
or
Reference to Price Rigidity
Should costs rise between points D and E the market price tends to remain constant at P_1.

(c) Explain THREE methods by which firms in oligopolistic markets may collude.
(15 marks)

1. Pricing policy / Limit Pricing
   One firm, with the tacit agreement of others, could reduce prices forcing unwanted entrants out of the industry.

2. Production/output policy
   Firms could join together to limit output to certain agreed amounts.

3. Sales Territories.
   Firms could divide up the market between them and agree not to compete in each other's market segment.

4. Refusal to supply firms.
   Firms may not supply those firms who buy from firms not in the cartel.

3 x 5 marks each graded

2002 Q1

(a) The assumptions underlying the theory of Perfect Competition.

1. There are many buyers in the industry.
   - No individual buyer can influence, by his/her own actions, the market price of the goods.
   - Each individual firm is a price taker.
   - Each individual buyer acts independently.

2. There are many sellers in the industry.
   - No individual seller can influence, by his/her own actions the market price of the goods.
   - Each individual firm is a price taker.
   - Each individual seller acts independently.

3. The goods are homogeneous.
   - The goods, which are supplied by the producers, are exactly the same/ identical.
   - Thus it is pointless for firms to advertise.

4. There is freedom of entry to and exit from the industry.
   - Firms already in the industry cannot prevent new firms from entering the industry.
   - No barriers to entry/exist within the industry.

5. Perfect knowledge as to profits and prices.
   - In the market everyone concerned has perfect knowledge as to profits made by other firms in the industry.
   - Consumers are fully aware of the prices being charged for the products.

6. Each firm tries to maximise profits.
   - The aim of each firm is to produce that quantity where MC = MR.

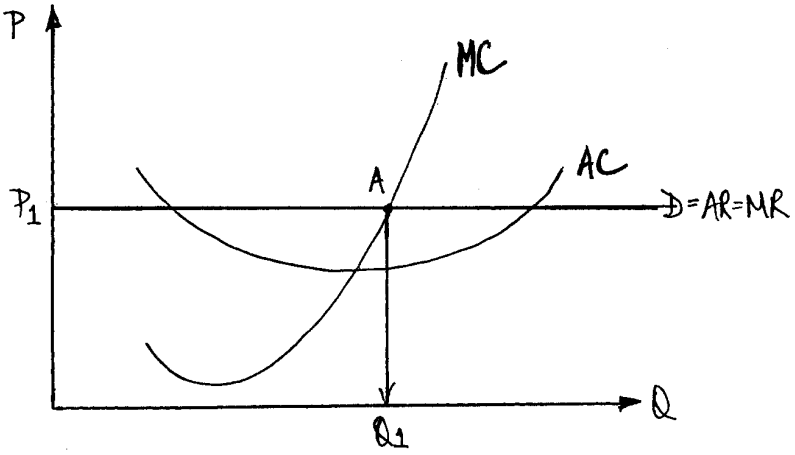
7. Firms face a perfectly elastic supply of factors of production.
   - If a firm wants to increase output it can do so and acquire the necessary factors of production at the existing price i.e. a scarcity of factors of production will not arise, thereby pushing up price.

8. No collusion exists on the market.
   - No collusion exists between buyers or sellers of the good. Buyers do not group together with other buyers or sellers do not group together with other sellers in order to influence the price at which the good is sold.

5 x 4 marks graded

2002 Continued

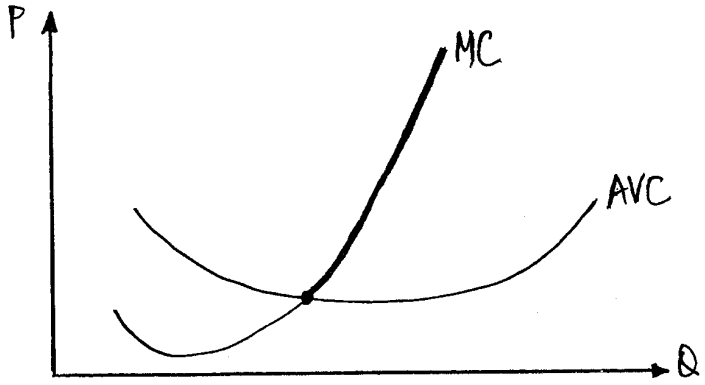
(b) (i) How a firm in Perfect Competition achieves short run equilibrium 10 marks



In the diagram above:

- the firm will produce where MC=MR, at point A, and produce Q1
- the firm will sell this output at price P1

(ii) Derive and explain the short run supply curve of this firm. 10 marks

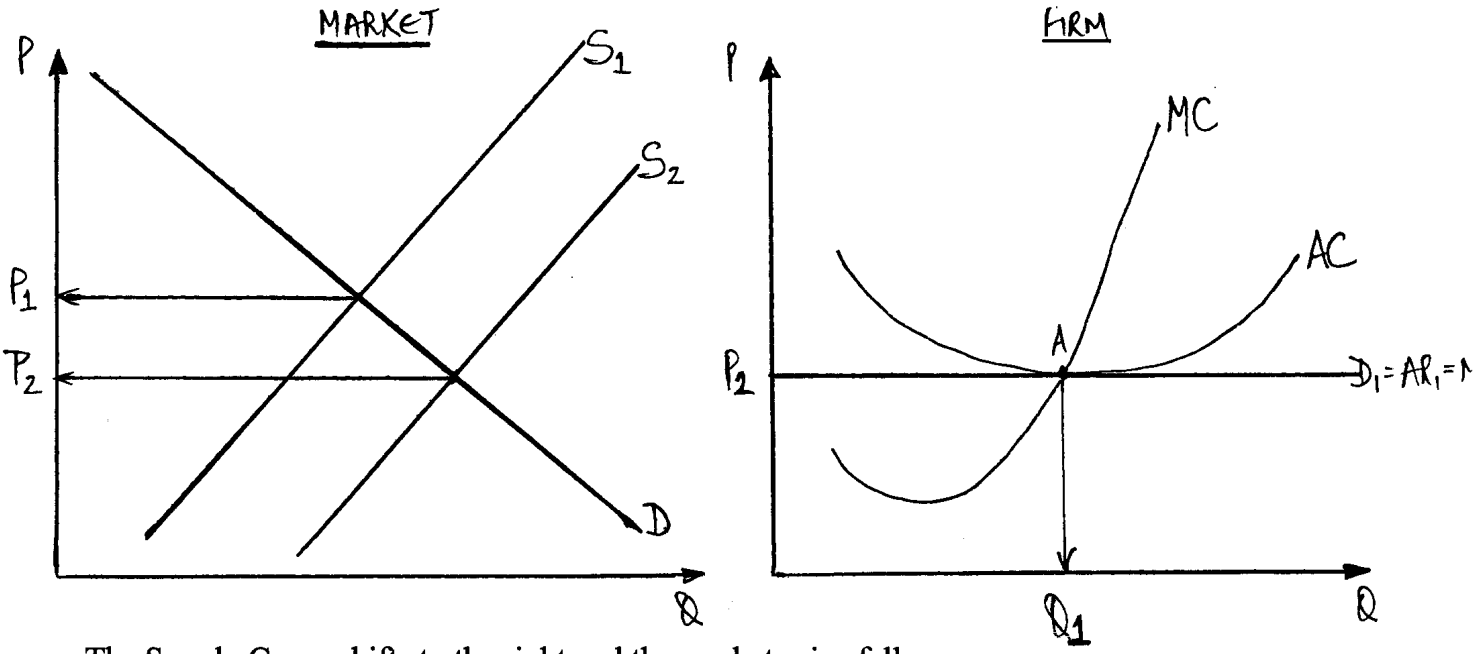


- The short run supply curve is that part of the Marginal Cost Curve above the lowest point of the Average Variable Cost .

2002 Q1

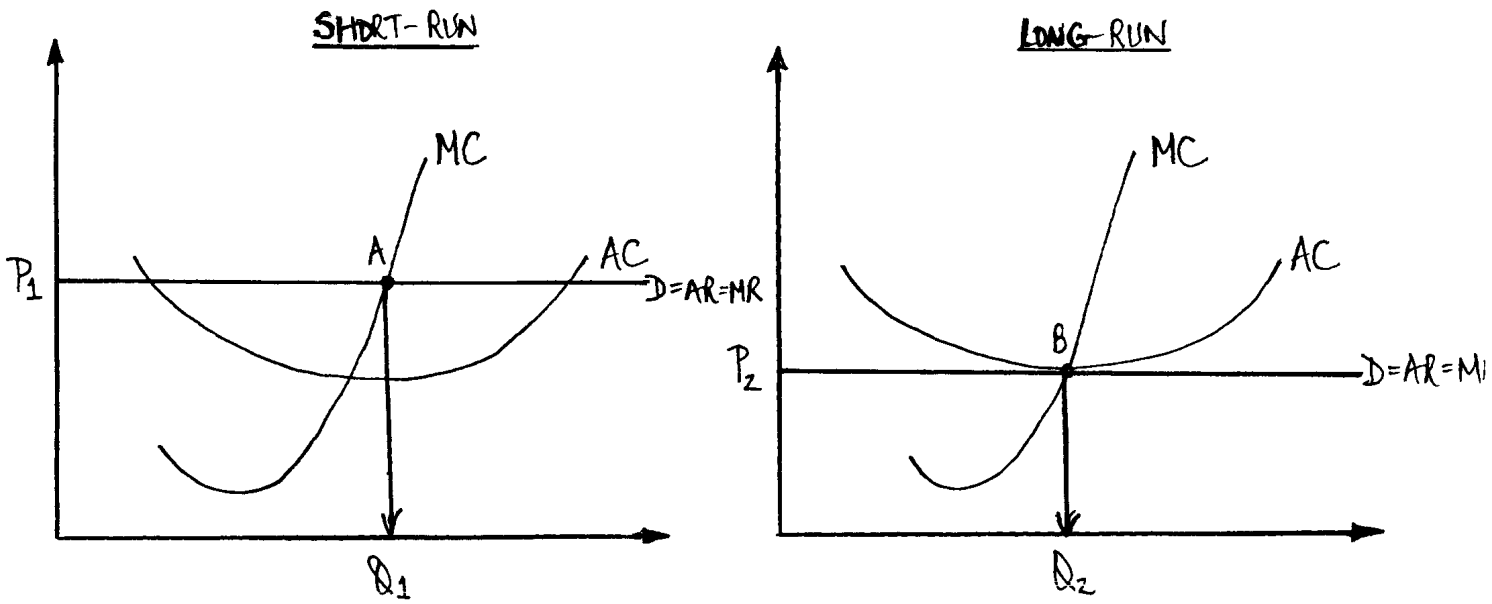
(c) Effect of entry of new firms into a industry earning SNP's — 20 marks

Option A –
Diagrams 10 marks/Explanation 10 marks



- The Supply Curve shifts to the right and the market price falls.
- This results in reduced SNP's or SNP's being eroded.

OPTION B
Diagrams 10 marks/Explanation 10 marks



- The S/C shifts to the right and the market price falls.
- This results in reduced SNP's or SNP's being eroded.

2002 Continued

(d) Firms in Perfect Competition tend not to engage in advertising.

1. Homogeneous goods
Because the goods are identical, and no differences exist, there is no point in advertising.

2. Increased costs / no additional revenue
If a firm advertises it would increase its own costs and decrease its profits / gain no additional revenues for itself.

3. Benefits the entire industry
Advertising by a single firm would not just benefit this firm, but the entire industry.

2 reasons 8m + 7m graded

2001 Q1

(a) State and explain the assumptions underlying the theory of imperfect competition. (25 marks)

1. There are many buyers / sellers in the industry.
   - No individual buyer can influence, by his/her own actions the market price of the goods.
   - An individual seller can influence the quantity sold by the price it charges for its output.

2. Product Differentiation exists.
   - The goods, which are supplied by the producers, are not identical goods but are close substitutes.
   - Firms try to establish in the minds of the public that the goods are not perfect substitutes by selling their goods under brand names.

3. There is freedom of entry to and exit from the industry.
   - Firms already in the industry cannot prevent new firms from entering the industry.
   - No barriers to entry exist within the industry.

4. Perfect/Reasonable knowledge as to profits made by other firms.
   - In the market everyone concerned has perfect / reasonable knowledge as to profits made by other firms in the industry.
   - Consumers may not be aware of the prices being charged for different products.

5. Each firm tries to maximise profits.
   - The aim of each firm is produce that quantity where MC = MR.

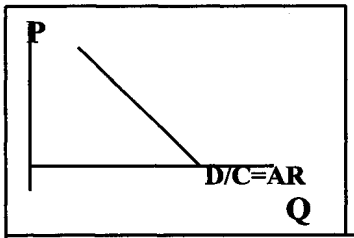
Marking scheme

State: 5 points at 3 marks each = 15 marks
Explain: 5 points at 2 marks each = 10 marks.

2001 Continued

(b) Draw the demand curve which faces a firm in imperfect competition and justify its shape. (10 marks)

Diagram



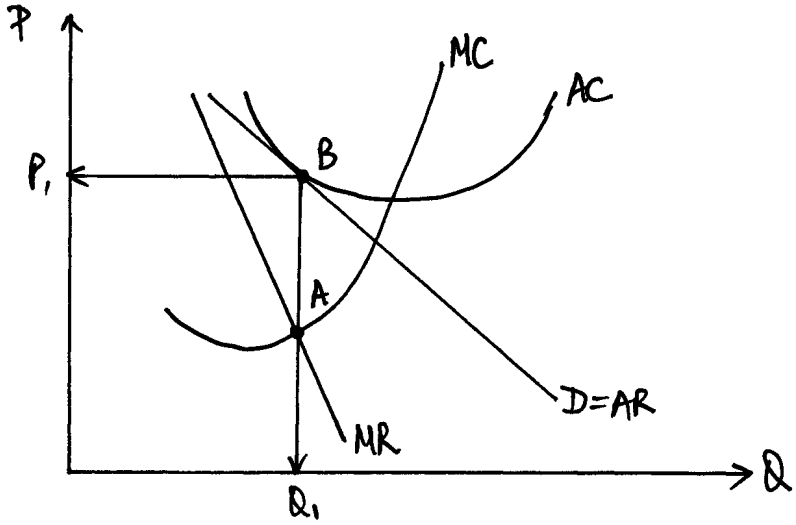
Marking Scheme
Diagram: 4 marks
Effect of a) in Price) 6 marks on demand)

Explanation

- **Because there are many goods, which are close substitutes, if a firm increases its price, there will be a reduction in demand, as some consumers will switch to the competitive goods, which have become relatively cheaper.**
- **If a firm lowers its price it will increase its sales, as some consumers of other substitute goods will switch to this firm's good because it is relatively cheaper.**

Either of the above points

(c) Discuss, with the aid of a clearly labelled diagram, the implications of the assumptions in (a) above on the equilibrium of the firm in the long run under conditions of imperfect competition. (30 marks)



Marking Scheme for Correct Diagram – 18 marks:

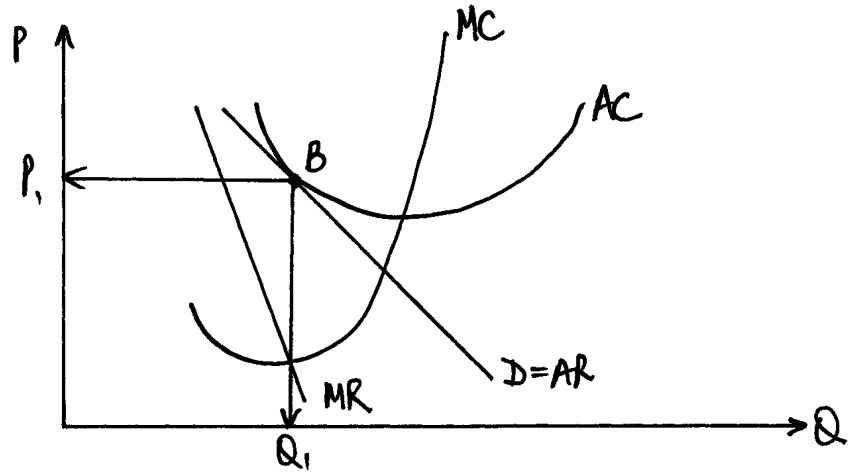
Labelling
Price axis, Quantity axis, AR (D), MR, AC and MC: 6 at 1 mark each

Equilibrium output:
Point A (where MC = MR and Output produced Q): 6 marks

2001 Continued

Equilibrium price:
Point B (where AR = AC and Price charged P): 6 marks

Diagram – Repeated



Marking Scheme for Correct Diagram – 18 marks:

Labelling
Price axis, Quantity axis, AR (D), MR, AC and MC: 6 at 1 mark each
Equilibrium output:
Point A (where MC = MR and Output produced Q): 6 marks
Equilibrium price:
Point B (where AR = AC and Price charged P): 6 marks

Option A: Candidate assumes short run as starting point

1. In the short run super normal profits may exist within the industry, because there is:
   (a) Perfect knowledge of profits and
   (b) Freedom of entry into the industry
   New firms are attracted into the industry.

2. As these firms enter the existing firms within the industry will lose some of their share of the market – the demand curve facing each individual firm will shift into the left.

3. This adjustment will continue until the super normal profits are eroded and there is no further incentive for new firms to join the industry.

4. So each individual firm achieves long run equilibrium when:
   a) MC = MR and MC is rising (Point A on the above diagram);
   b) AR = AC (point B on the above diagram), the firm is covering its long run costs.

Marking scheme: 12 marks graded

2001 Continued

(d) State ONE FEATURE of this firm in long run equilibrium, which would be common to a firm in long run equilibrium under EITHER perfect competition OR monopoly. (10 marks)

Perfect Competition	Monopoly
1. Both earn Normal Profit. AR = AC.	1. Both wasteful of resources. (Neither produces at the lowest point of average cost).
	2. Downward sloping D/C. Both must lower P to increase QD
	3. Price exceeds marginal cost.

One feature clearly stated: 10 marks