(a) Explain whether it is always advantageous for a firm to grow in size. (12m)
(b) Discuss how you would decide whether a firm is exerting its monopoly power. (13m)

Explain whether it is always advantageous for a firm to grow in size. (12m)

Introduction

- Define key terms:
  Grow in size – increase in scale of production or increase market share
  Advantageous – How are the advantages measured by?
    - Benefits to firms in terms of high revenue, lower costs, higher profits
    - Benefits to consumers in terms of lower prices, better quality
    - Benefits to society in terms of efficiency

Development: Thesis Vs Anti-thesis for "advantageous"

- Thesis:
    - Ability to set prices and earn supernormal profits
    - Increased scale of production enabling EOS to be reaped
    - Supernormal profits to achieve dynamic efficiency
- Anti-thesis:
    - Economies of scale may be limited
    - Allocative and productive inefficiency
    - X-inefficiency
    - Nature of industry may require firms to be small

*Any 2-3 points, well - analysed and evaluated

Conclusion/synthesis:

Growth in size of firms may not necessarily be advantageous to both firms and consumers, as it also depends on the nature of the industry and the firm's current level of output. Some industries which prioritises variety and fine details over standardization may not benefit from the growth in a firm's scale of production as the firm is likely to produce same goods in bulk. However, for industries that have large MES, it is likely to be advantageous for both the firm and the consumers for it to continue growing in size as long as it does not exceed the MES.

	Marking Scheme	
L3	Well-developed answer with a competent analysis on the advantages and disadvantages of a firm's growth in size, with clear evaluation.	9-12
L2	Underdeveloped explanations on the advantages and disadvantages of a firm growing in size OR A one-sided answer on the advantages/disadvantages of a firm's growth in size	5-8
L1	Descriptive answer that shows some basic knowledge on advantages or disadvantages of a firm's growth in size. Answers contain inaccuracies.	1-4

(b) Discuss how you would decide whether a firm is exerting its monopoly power. (13m)

Introduction

- Monopoly power is defined as the ability to influence the price of a product above its marginal cost. It depends on two crucial factors: availability of close substitutes (or number of firms in the industry) and the power to restrict the entry of potential rival firms.
- A firm's objective is usually to maximize profits → firms exerting its monopoly power would usually aim to earn high supernormal profits, both in the SR and LR.
- Hence, to determine whether a firm in reality is exerting its monopoly power, there is a need to observe the firm's behavior and also other indicators that would suggest it is earning high supernormal profits.

Development: Performance and behavior of firms exerting monopoly power

1) High supernormal profits

A firm who is exerting its monopoly power would be able to restrict output to set prices under the profit-maximising condition MC=MR and benefit from both revenue and cost advantages. A firm with high monopoly power face lesser competition as it dominate a large share of the market, which means high demand for its goods. There are also less competitor firms in the industry and hence less close substitutes available →demand for its goods is less price elastic (PED<1) → a rise in price leads to a less than proportionate fall in the qty demanded for the goods, ceteris paribus. Hence, a firm with monopoly power is able to increase price to increase revenue. With higher prices and costs constant, firm is able to earn high supernormal profits of AC1P1AB (refer to Fig. 4).

This is in contrast with a firm in a more competitive industry such as a monopolistic competitive market where firms with little monopoly power may still be able to earn supernormal profits in the SR, but in the LR, absence of high barriers to entry will allow new entrants into the market to compete away the supernormal profits, resulting in such firms only earning normal profits (fig. 4 P2=AC2). However, firms with monopoly power usually have high barriers to entry enabling them to maintain supernormal profits even in the LR.

Hence in reality, a data on a firm's profit margins over a substantially long period of time will be useful in determining if a firm is indeed exerting its monopoly power. If profit margins have been high and have been sustained over a long period of time, the firm is highly likely to have exerted its monopoly power and it will not be a case of a competitive firm who receives supernormal profit but only in the short term before new entrants compete away the profits. Alternatively, sales figures and costs can also be used to measure the amount of profits a firm is making (TR – TC). In addition, high revenue figures and low costs would reaffirm that the firm has some degree of monopoly power as the high revenue is likely due to the firm's large market share and low costs due to the firm's large scale of production allowing it to reap EOS that lowers unit COP.

Possible Evaluation:

Using supernormal profits as an indicator may not necessarily be always accurate as some firms exerting monopoly power may still be earning normal profits or low supernormal profits. This could be due to the nature of the industry where costs of production tends to be relatively high, or it could be that the large supernormal profits and high BTE within the industry have led to complacency of such firms, thus incurring several unnecessary costs due to X-inefficiency e.g. over-staffing, extravagant office furnishings etc. These are likely to reduce the amount of profits these firms can make even if they are still able to set prices and enjoy high revenue.

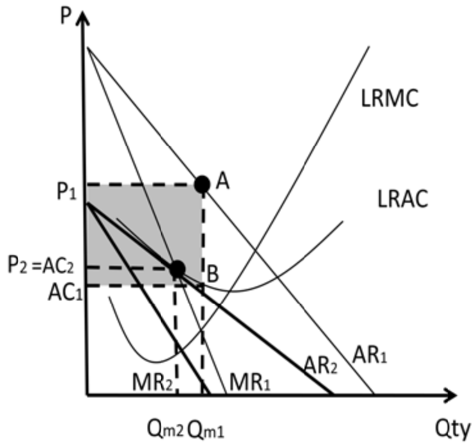

Figure 4

2) Price Discrimination

Price discrimination occurs when a firm sells the same product to different groups of consumers at different prices when differences in price cannot be explained by cost differences. One of the necessary conditions for price discrimination is that the firm has to be a price-setter which can easily be so for a firm which exerts its monopoly power. Such a firm, for instance, can practise third degree price discrimination to further increase supernormal profits. This can only be done if the firm is able to successfully segment the market and no resale between these markets is possible. PEDs in these sub-markets must also be different.

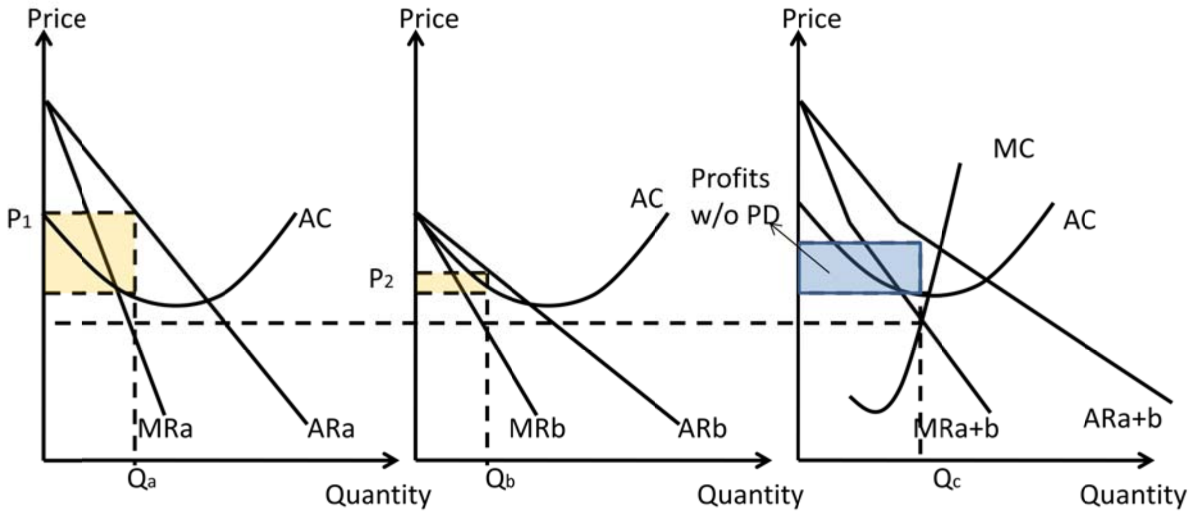

Figure 5. Price Discrimination

Figure 5 illustrates how a firm may be able to earn higher supernormal profits as a result of its ability to practise 3rd degree price discrimination. In order to successfully price discriminate, the firm needs to be aware of the relative PEDs of each sub-market and be able to segment their consumer base accordingly.

In reality, such firms are likely to have some means to gather more information about their consumer base e.g. consumers' taste and preference, income levels etc. This can now be easily done through online websites where firms get consumers to fill in particulars and questionnaires that would facilitate the segmenting of the market. Hence, firms observed to have been carrying out such actions, or have been charging different prices to different consumers are probably exerting their monopoly power through price discrimination.

Evaluation:
However, these price differences may be due to cost differences whereby firms may have certain special loyalty schemes for regular customers offering "freebies" upon purchase → there is a difference in the costs as the cost of freebie is incurred for the market for regular customers. In addition, certain price differences may be due to government regulations in place e.g. offering a children's price for goods or services with high educational purposes etc.

3) Predatory-Pricing
A firm who is currently enjoying monopoly power may also exert its monopoly power to safeguard its status in the industry, adopting pricing behavior that would deter rival firms from entering the industry.
Predatory pricing is the deliberate setting of prices at levels even lower than AC to deter potential entrants from pursuing plans to enter the market. At such low prices, the potential entrant is unable to compete and will then be driven out of the market. By doing so, the firm may also suffer from heavy losses over that period of time, but is able to finance and continue its productions the funds accumulated from all the high supernormal profits it has been enjoying from before.

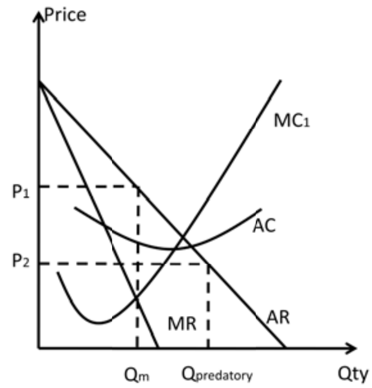

Fig 6: Predatory Pricing

Hence, firms who make temporary but large adjustments in their prices may be simply exerting its monopoly power to drive away potential competitors. Hence, the pricing strategies of firms can also be observed and used to determine if a firm is exerting its monopoly power.

Evaluation:
In reality, it is not easy to correctly identify the AC and hence information on the firm's costs is also required to check if price is indeed being lowered beyond AC. Firms may also lower price in for other objectives such as sales maximization, or earning brand loyalty by passing on cost savings from EOS to consumers.

4) Collusion
Similar firms with some degree of monopoly power in an industry may come together to collude as their combined monopoly power may help achieve higher industry profits. When firms collude, they restrict competition among themselves and can decide to set output quotas, fix prices, limit product promotion etc. In the case of price fixing, firms may collude to set the same price, restricting any price competition. This price would only be agreed upon if all firms can benefit from it i.e. earn supernormal profits and this is only possible if there are fewer firms colluding compared to a case where many small firms try to collude.

Hence, observable indicators such as uniform prices across the market, high industrial profits, all firms having high profit margins will suggest that these firms are exerting their combined monopoly power.

Evaluation:
Uniform prices could also be case whereby the industry is very competitive and firms are more or less price-takers→ they do not engage in price competition and could be only engaging in non-price competition.

5) Dynamic Efficiency
Firms with substantial monopoly power can earn supernormal profits in the LR → accumulation of profits as funds for R&D. Given the benefits of monopoly power, these firms may want to continually safeguard their status by seeking product development and process innovation through R&D. Firms may direct their profits into research and development.

Hence, firms with high profit margins, and relatively high engagement of R&D may have been exerting its monopoly power to have garnered sufficient funds for it to achieve dynamic efficiency in the LR.

Evaluation:
Not all firms with high supernormal profits may have the incentive to engage in R&D. Some firms may not feel threatened by any potential rival firms, and may not see the importance of being dynamic efficient. In addition, the outcomes of R&D are uncertain, and hence some firms may not want to take the risk and invest in something that may possibly yield no results.

Conclusion/Synthesis
As firms with monopoly power usually enjoy high supernormal profits in SR and LR, a firm's profit margins may be the most obvious indicator in determining if the firm is exerting its monopoly power. While other observations of behaviour and performance may also help to reaffirm this, they are more situational.
However, as statistical information of firms may be confidential and therefore hard to access, it may be easier to turn to more observable indicators as part of the determining criteria. In addition, figures such as sales and profits may not necessarily be reliable as firms may not provide the most accurate information for reasons such as evading high corporate income taxes, protecting the firm's reputation etc.
In reality, many countries have also put in place anti-competitive laws and have official bodies to monitor the anti-competitive behaviour of firms. Hence, these may also have affected the true extent of monopoly power being exerted by firms as they may prefer to earn less profits or be more cautious in their pricing behaviour to keep a low profile.

	Marking Scheme	
L3	Well-developed answer with a competent analysis and explanations on the performance or behavior of firms exerting monopoly power. A clear criteria is given, accompanied by clear evaluation.	9-11
L2	Underdeveloped explanations on the performance or behavior of firms exerting monopoly power with little/no relation to real world.	6-8
L1	Descriptive answer that shows some basic knowledge on monopoly power. Answers contain inaccuracies.	1-5

Evaluation Marks		
E2	Evaluative judgement supported by appropriate analysis	3-4
E1	Unexplained judgement	1-2