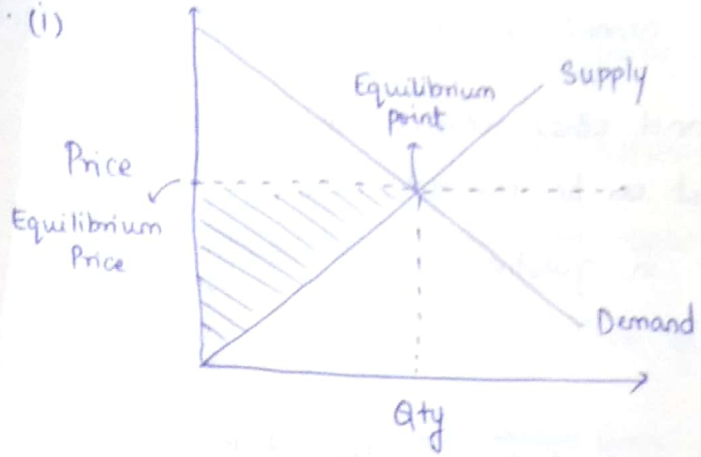
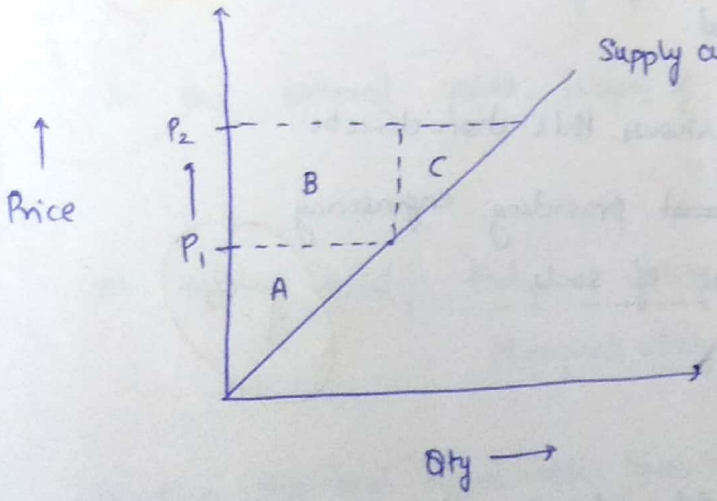
1. (i)



The shaded area represents producer's surplus

The producer's surplus is equal to the difference between price for the commodity that the producer obtains by selling it and his cost while producing it.

As producers determine the supply curve, with qty. sold increasing with price, the producer surplus goes up when price increases



1.5

When price changes from P_1 to P_2, the overall producer surplus increases from A to (A+B+C), where B is the additional surplus to the existing producers while C is the surplus to the new producers

(ii) The sunk costs of a firm are those costs which have already been committed and cannot be recovered.

eg. The rent paid on land and other infrastructure costs (not including machinery that can be moved) are sunk costs for the firm in question.

A firm must evaluate its sunk costs before a long term decision to exit the market. Sunk costs play an important role here.

1.5

(iii) Economies of scale

Refers to a production model wherein the long-run average total cost goes down with increase in quantity of units produced.

eg. Any natural monopoly shows this characteristic. Moreover, most firms providing engineering goods operate on 'economies of scale'.

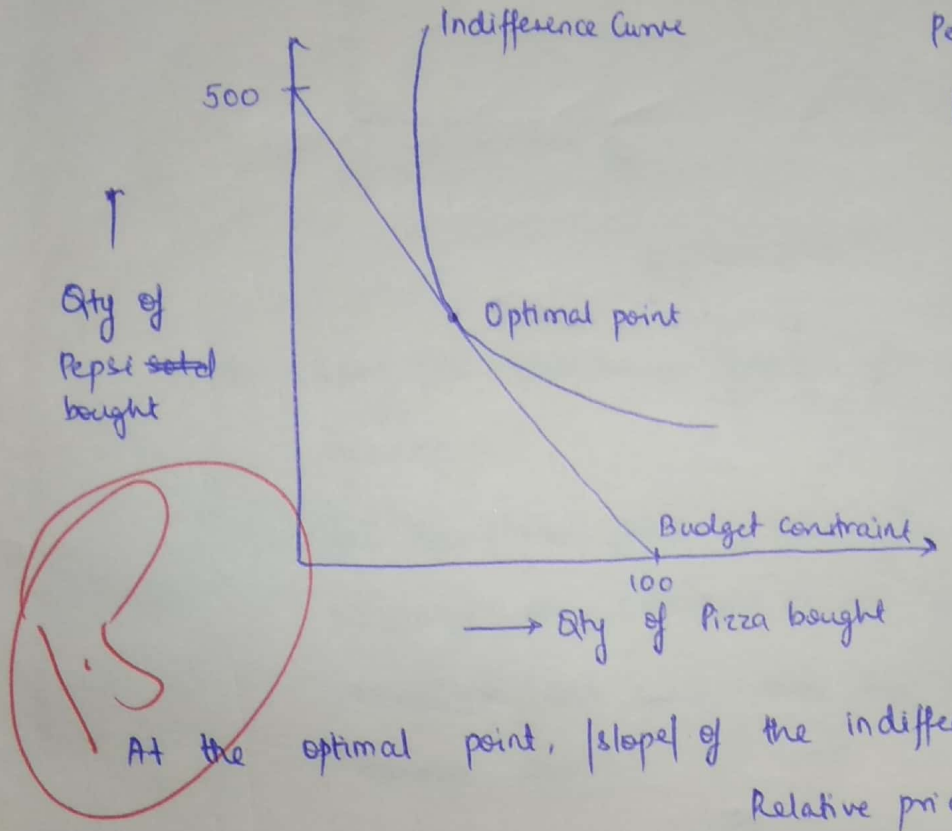
1.5

Economies of Scope

Refers to a production model wherein the production of two diverse products is cheaper if done by a single firm, than the separate independent production of the products by different entities.

eg. By producing both burgers and French fries, McDonalds is able to utilise the same resources for storage and transport, thereby decreasing production costs.

(v) The Law of Equi-marginal Utility states that at the optimum point (where the consumer's satisfaction is maximised given his budget constraint between two goods) the marginal utility ~~of the last rupee vote spent on~~ derived by spending the last rupee vote on either of the goods is equal.



Pepsi = $2 / unit

Pizza = $10 / unit

Budget constraint = $1000

At the optimal point, |slope| of the indifference curve = Relative price of pizzas to pepsi

$\therefore$ At optimal point, $\frac{\text{Marginal utility of pizza } (M_1)}{\text{Marginal utility of pepsi } (M_2)} = \frac{\text{Price of Pizza } (P_1)}{\text{Price of Pepsi } (P_2)} = 5$

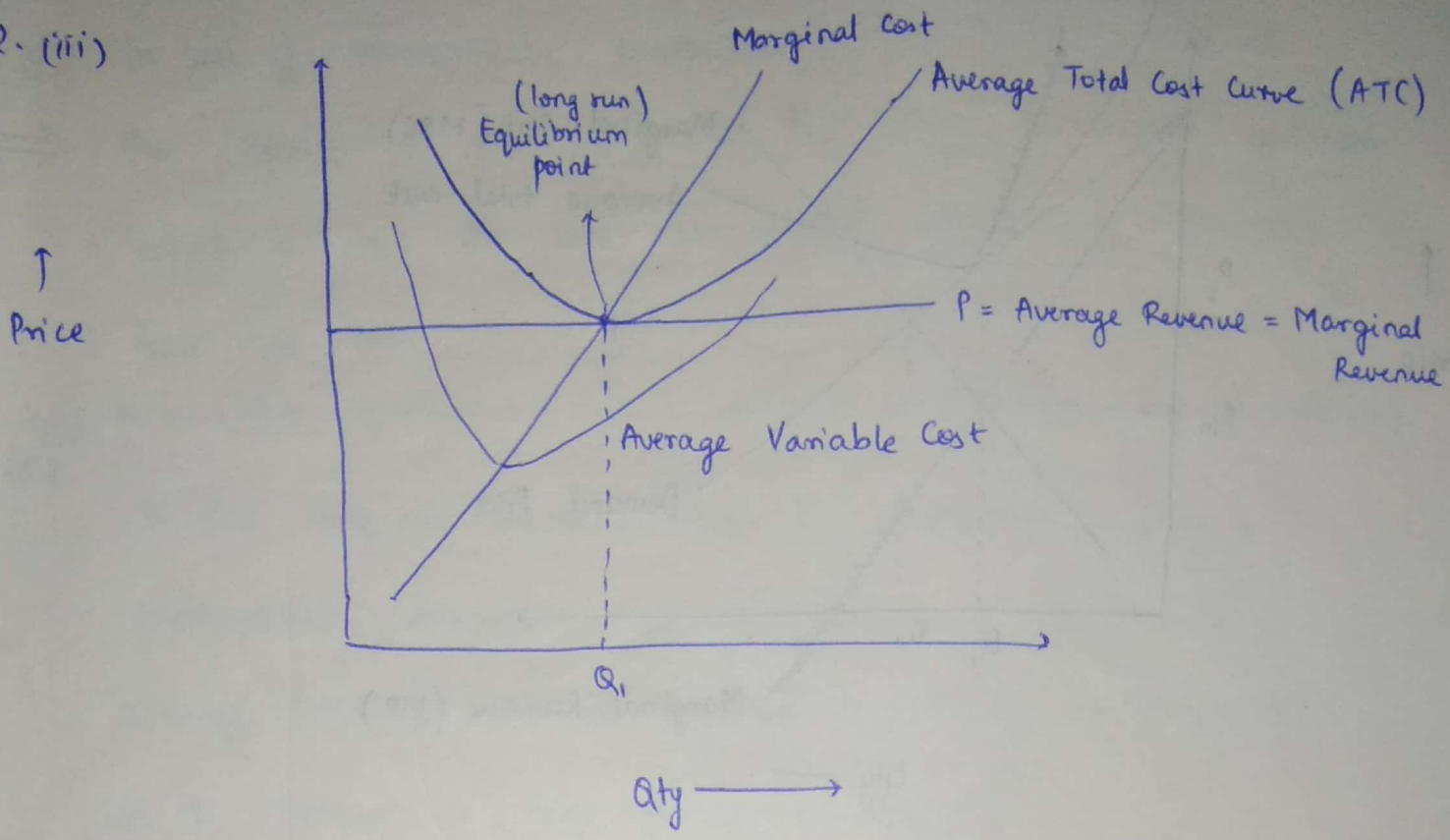
Spending the last rupee vote here will get ~~one~~ a consumer utility as:

$\frac{1}{P_1} \times M_1$ or $\frac{1}{P_2} \times M_2$

From (1), $\frac{M_1}{P_1} = \frac{M_2}{P_2}$

Hence the marginal utility from last rupee vote is equal.

2. (iii)

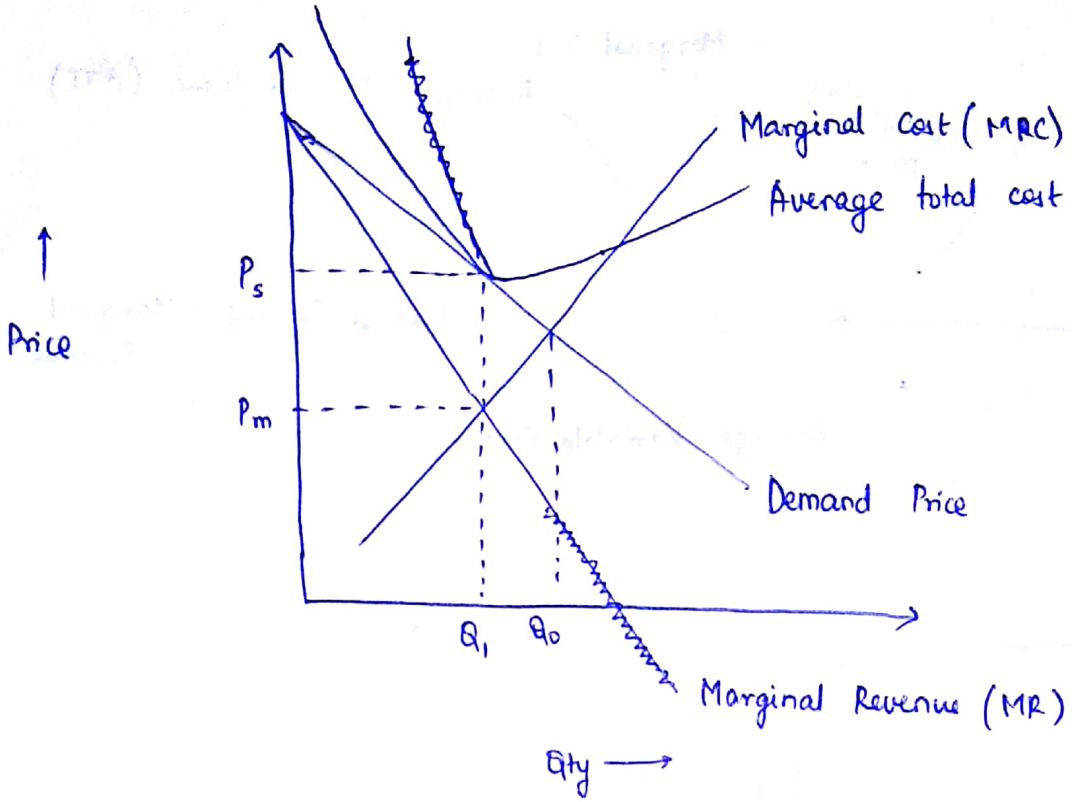


1. Long run equilibrium point for perfectly competitive market.

The equilibrium point is where the profits of the company are maximum i.e. the point where the marginal cost curve cuts the marginal revenue curve.

In the long run, ~~to~~ firms are driven in and out of the market as the ~~price approaches~~ economic profits approach nullity.

As a result, in the long run the equilibrium price becomes equal to the minima of the average total cost and the firm is unable to make any economic profit.



(2) Long run equilibrium point for monopolistic competition

With the aim of maximising profits, the firm operates on quantity Q_1 such that MR = MC.

Distinguishing factor: In the ~~case~~ case of monopolistic competition

(a) however, the demand curve, unlike that for perfect competition, is downward sloping.

(b) Moreover, the demand price for case (2) is always greater than the marginal ~~product~~ revenue while the two are equal for case (1)

$\Longrightarrow$ (c) In a perfectly competitive market, at long run equilibrium, the price is equal to the marginal cost, while in a monopolistic competition set up, the price is greater. ($P_s > P_m$) than the marginal cost at that quantity.

(d) In case of monopolistic competition, the quantity sold at
⟹ the equilibrium ~~price~~ point is less than the social optimum which is not the case for perfect competition, where the two are equal.

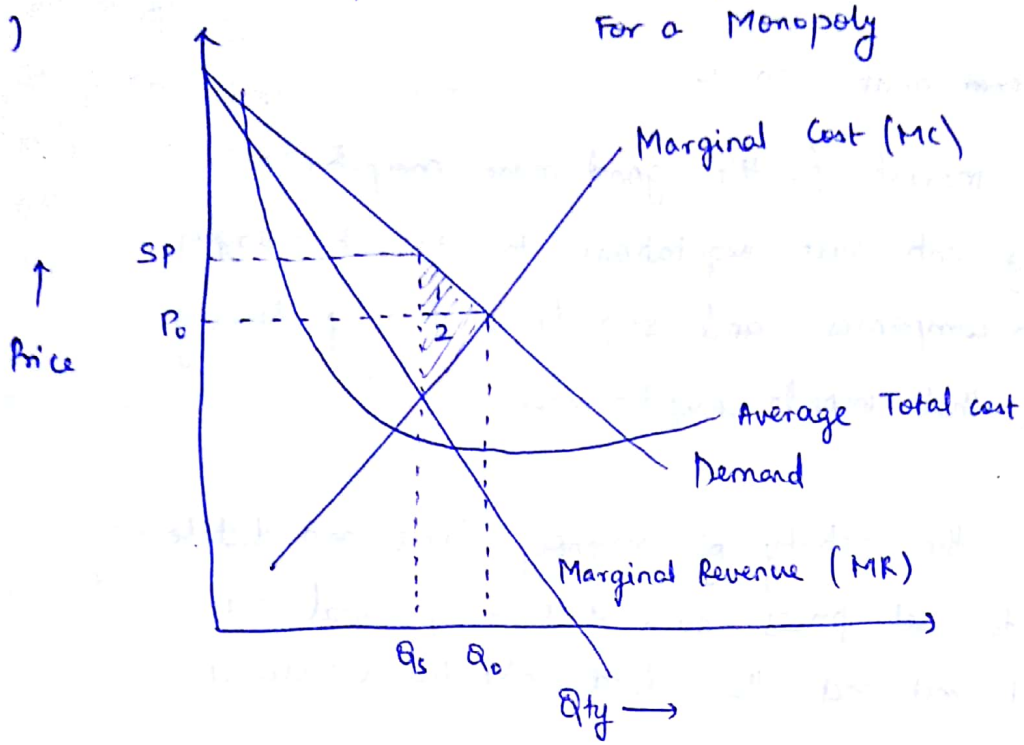
(e) In case (1), equilibrium occurs at minima of ATC, not in case (2)

~~(e)~~

In the long run, however, even the firm operating in a monopolistic competion has zero economic profit as average total cost at Q_1 becomes equal to the price at Q_1 & tangent to the ~~D~~ Demand curve.

(iv)

Profit Maximization Equilibrium For a Monopoly



A monopoly has a single firm which is a price taker. It faces a downward sloping demand curve and to maximise profits, it chooses to operate at $Q = Q_s$, where $MR = MC$.

As a result, the firm sells its goods at Price = SP. (vertically above point of MC & MR intersect)

In such a scenario, the quantity of good sold is lesser (Q_s) than the Q_0 as the firm charges a higher price (SP) than the P_0, the price for maximum social welfare.

This leads to a loss in social welfare represented by the deadweight loss in areas 1 & 2. It is very similair to the deadweight loss due to taxation, but while the latter former raises tax revenue for the government, the ~~deadweight~~ former helps the monopolist accrue profit, hence giving the firm Economic profit in the long run, which is zero in perfect

The Government can intervene to correct this issue

(ii) The g Government can :-

(i) Make the market for the good more competitive by using anti-Trust regulations to prevent mergers, break up companies and stop firms from performing activities that impede competitiveness.

(ii) Regulate the activity of monopoly firms and dictate them to set prices such that they equal the marginal cost and the deadweight loss is reduced.

(iii) Make a private monopoly a public enterprise.
eg. The Railway and postal services in India are public sector enterprises

(iv) If the loss of social welfare is insignificant in comparison to the imperfections of public policy, the firm may choose to do nothing at all.

3. (i) ~~True~~
(ii) True
(iii) True
(iv) ~~True~~
(v) True
(vi) False
(vii) ~~True~~
(viii) False
(ix) True
(x) True
(xi) True
(xii) True

4.5

4. (i) decrease
(ii) isoquant
(iii) cartel
(iv) Duopoly
(v) income
(vi) zero
(vii) substitution
(viii) welfare
(ix) ~~average~~
(x) Production

4.5

5. (i) D

(ii) A

(iii) B

(iv) C

(v) C

(vi) C

(vii) D

(viii) B

(ix) D

(x) D