

Here MR = marginal revenue, AR = average revenue, e stands for elasticity of demand. If AR is the same in both the market i.e. A & B and e are also the same, then it follows from the formula that marginal revenue in the two markets will also be equal. If the marginal revenue in the two markets are the same then there is no incentive for the monopolist to practice price discrimination reason being that if output is transferred from the high priced to the low priced market, there will be no addition to the total revenue of the monopolist what is gained in the low priced market will be lost in the high priced market. So our conclusion is that if the elasticity of demand in the two markets are the same, there is no incentive for price discrimination.

The second condition of the discriminating monopolist's equilibrium is equally obvious. His MR in the two markets must be equal to the marginal cost (MC) of his total output. If MC is higher than MR say in A market he will increase his profit by cutting down his sale in the market. If the MC is lower than MR , he will add to his profit by increasing his sale in that market. Equilibrium will be reached only when there is no incentive for the monopolist to increase or decrease his output. This applies to market B also. Thus in both the markets MR should be equal to MC . These 2 conditions of equilibrium can be expressed in an equation like this:

$$MR \text{ in market A} = MR \text{ in Market B} = M. \text{ cost of } T.C.$$

How the monopolist achieves equilibrium by fulfilling these 2 conditions is shown with the help of diagrams below

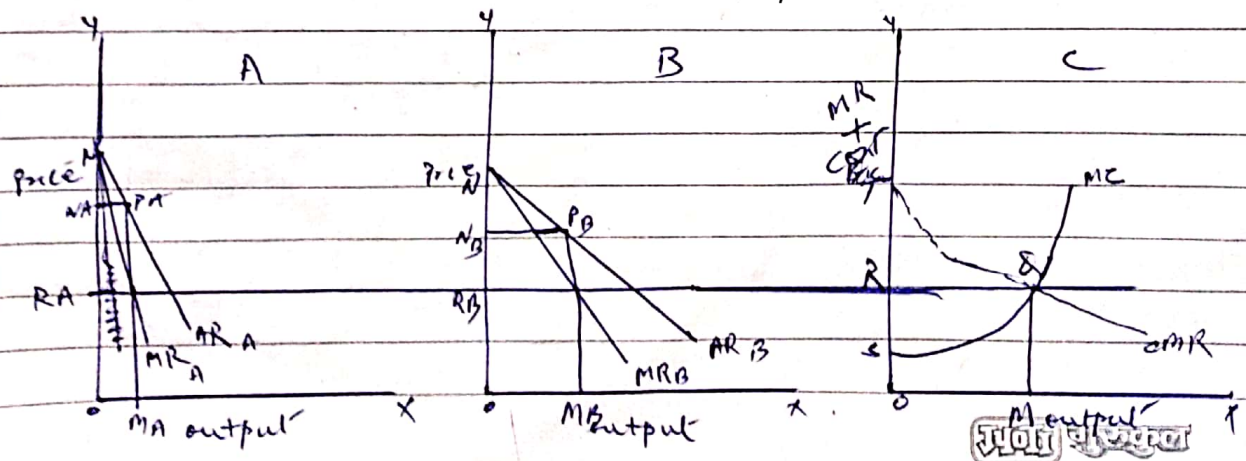


Diagram A and B shows the average revenue & marginal revenue curve in the 2 markets A & B. The slopes of the AR curve in the two diagrams shows that elasticity of demand are different in the two markets. In market A the steepness of the AR_A curve shows that the demand is inelastic. The flatness of the curve AR_B shows that the demand is elastic in market B. In diagram C OM is the profit maximising output. It is determined by the intersection of the MCC for the monopolist's total output with the combined MR of the two markets. The curve combined MR has been obtained by adding the curves MRA and MR_B. OM is the equilibrium which OM is the combined MR as well as the MC. Now the problem before the monopolist is how to distribute the output OM between the two markets A & B. As we have seen earlier the total output shall be distributed between the two markets in such a manner that the MR is the same in both the markets. Following this principle, the discriminating monopoly will sell OMA output in market A and OMB in market B. Since the MR in both the market is the same, though the e are different, it follows from the formula that prices in the two markets must be different. In market A, the monopolist charges OMA price while in market B he sells at OMB price. The discriminating monopolist's total profit is shown in diagram C by the area TBS.