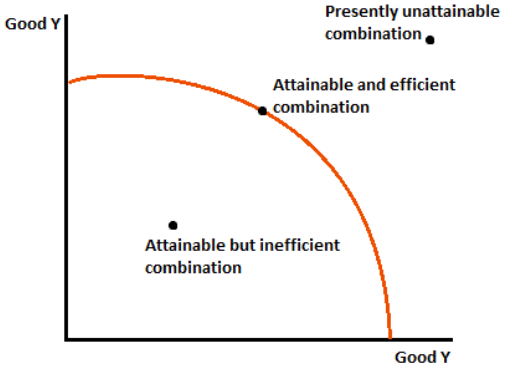
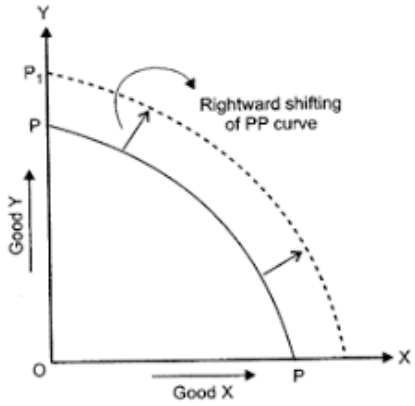
PPC

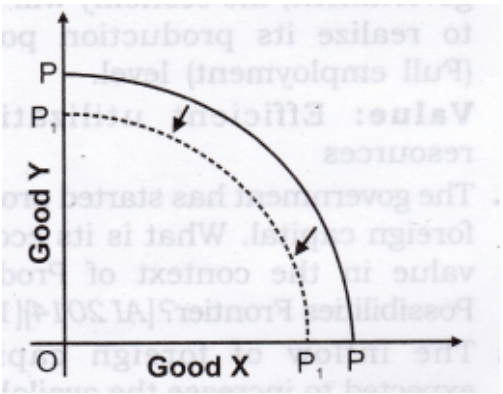
1. Attainable & Non-attainable combinations of goods



2. Shifting of PPC
    a. Rightward Shift - When there is growth in resources



    b. Leftward Shift - When there is decrease in resources



3. Rotation of PPC
    a. Rotation on X axis (efficient production of GOOD X)
    b. Rotation on Y axis (efficient production of GOOD Y)

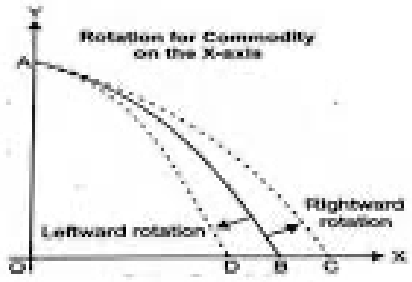


Diagram 1

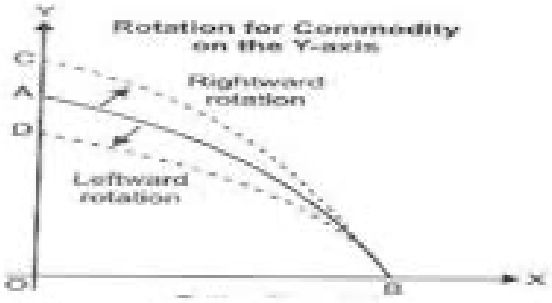
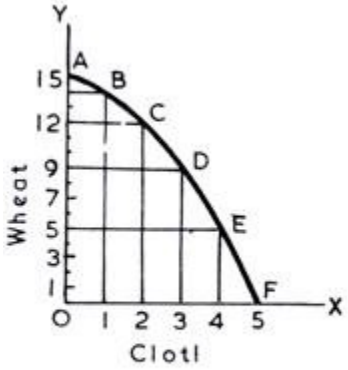
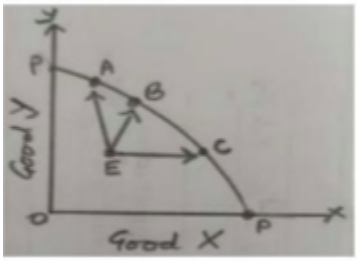


Diagram 2

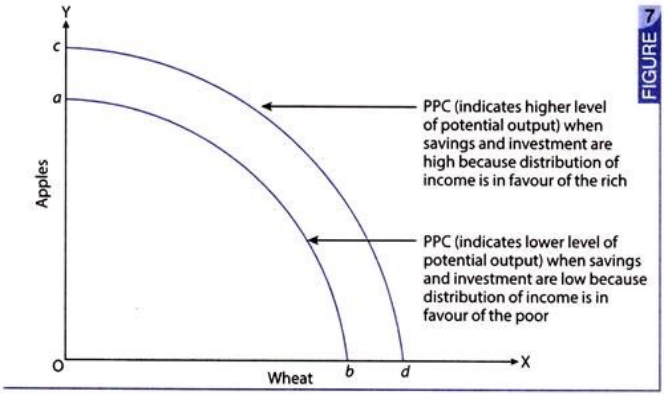
4. Central problems
    a. What to produce



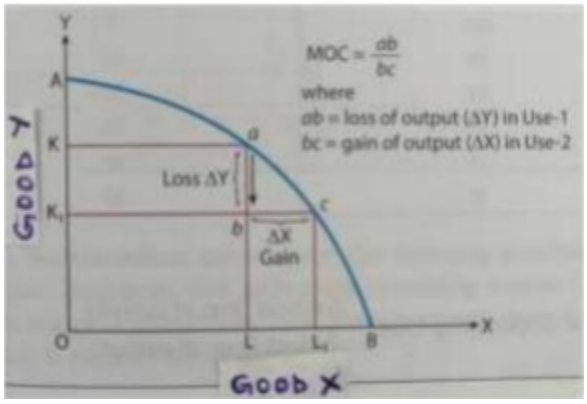
    b. How to produce



    c. For whom to produce

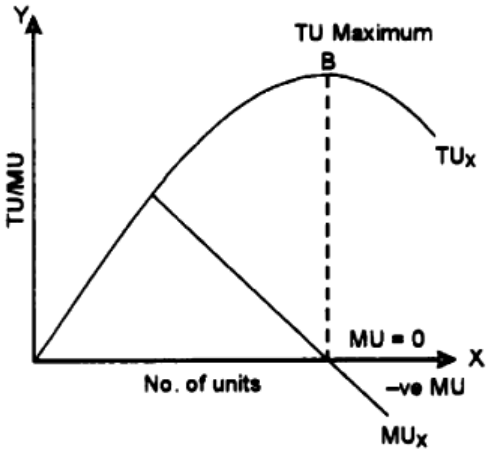


5. MOC (loss of output in Y/ Gain of output



Consumers Equilibrium:

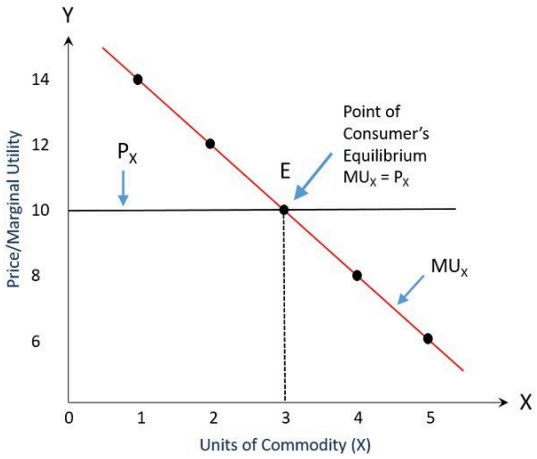
1. Relation between Total Utility and Marginal Utility



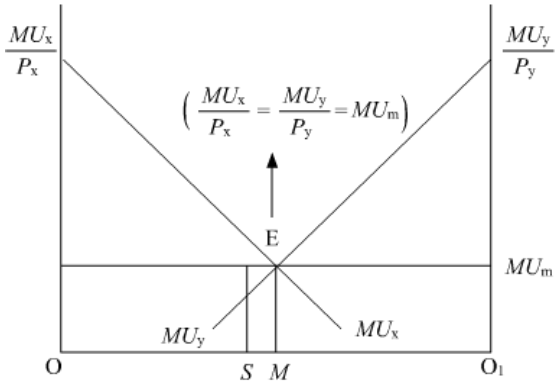
Observations:

a) As long as MU is positive, TU increases
b) When MU is zero, TU is maximum and constant
c) When MU is negative, TU starts diminishing
d) MU is the slope of TU
e) TU = Σ MU
   MUn = TUn - TUn-1
   Or
   MU = Change in TU / Change in Quantity

2. Consumers Equilibrium : One commodity Case



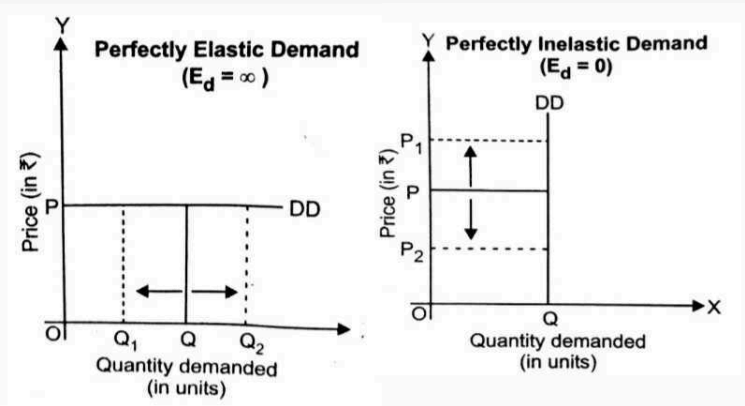
$$\frac{MU_x}{P_x} = MU_M$$

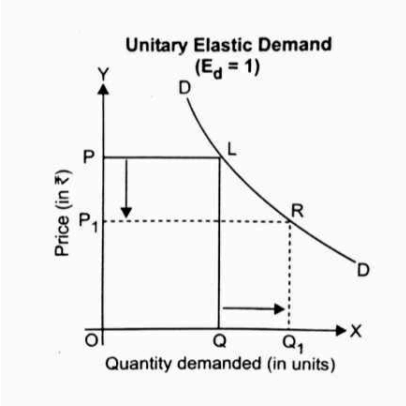


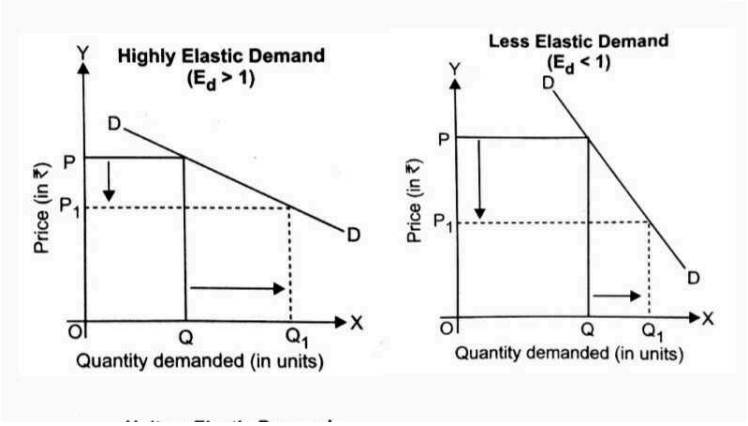
3. Consumer Equilibrium: Two commodity case

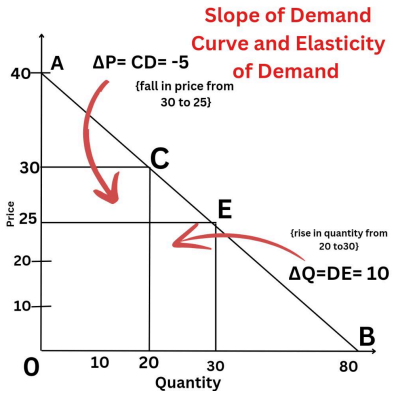
$$\frac{MU_x}{P_x} = \frac{MU_y}{P_y} \text{ , or } \frac{MU_x}{MU_y} = \frac{P_x}{P_y}$$

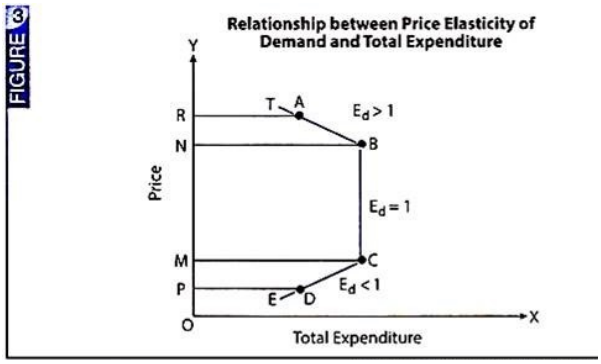
Price Elasticity Of Demand:





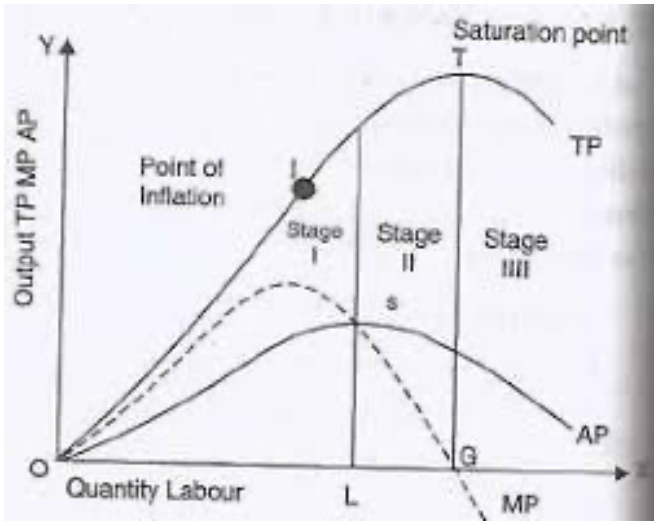






Product Function

1. TP, AP and MP relationship



Concept of cost

1. Fixed costs
2. Variable costs
3. Average Fixed Cost
4. AC curve as a vertical summation of AVC and AFC
   AFC is a rectangular hyperbola
   *Vertical Summation is a way of adding values of different cost curves vertically at each level of output

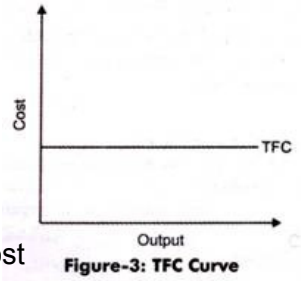


Figure-3: TFC Curve

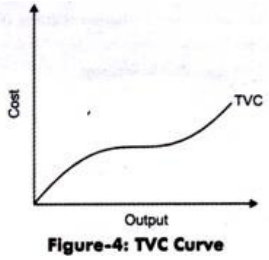


Figure-4: TVC Curve

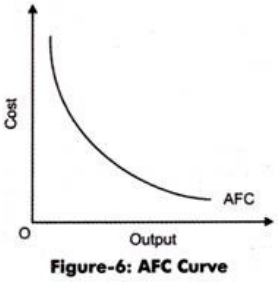
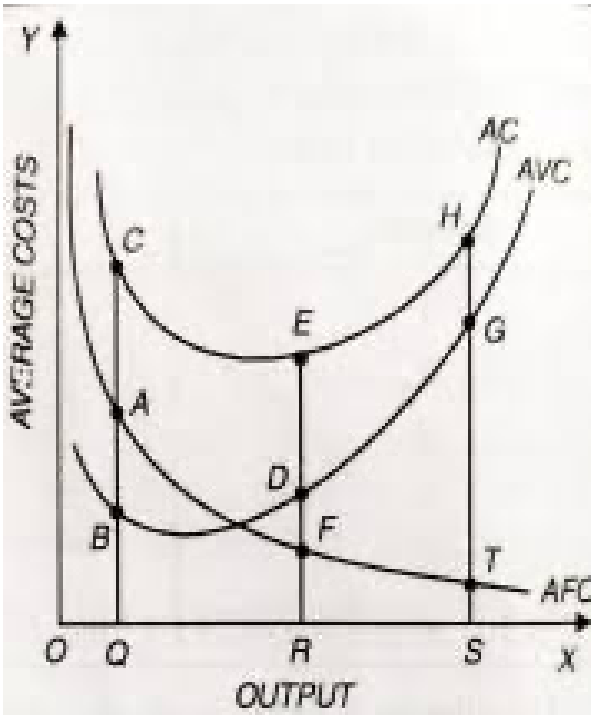
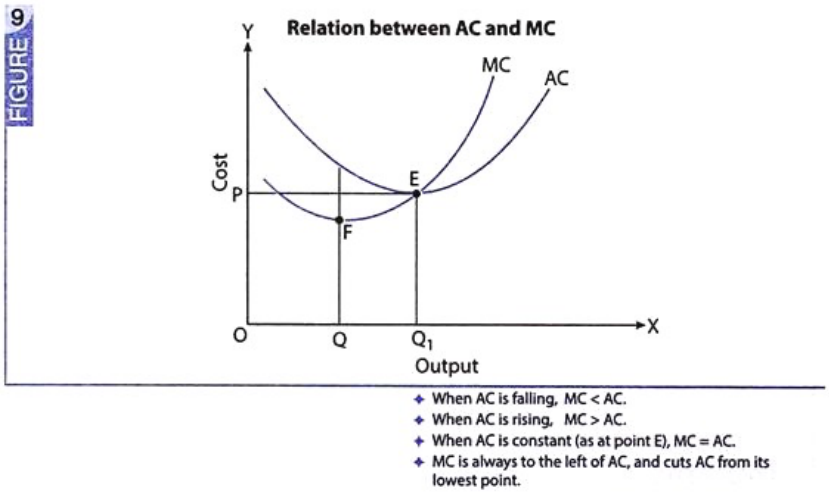


Figure-6: AFC Curve

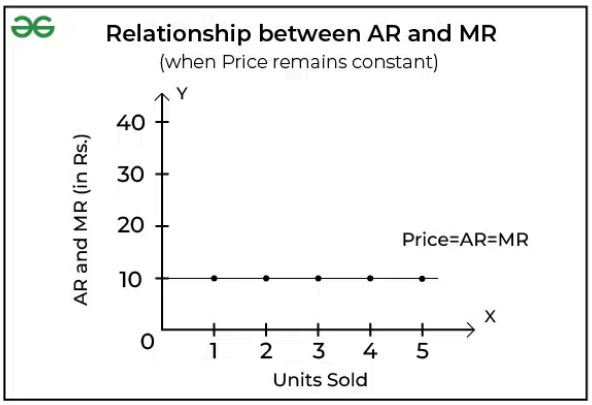


5. Relationship between AC and MC

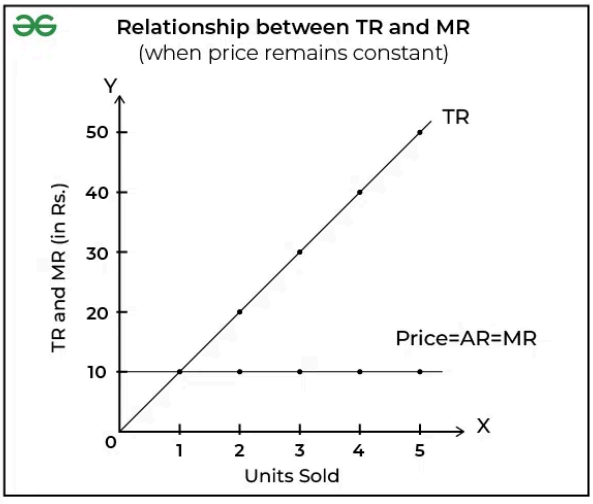


Concept of Revenue

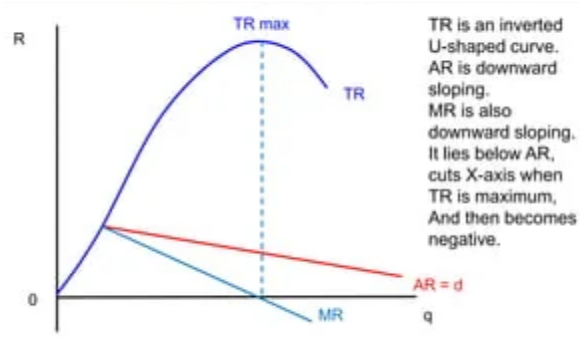
1. Relationship between AR and MR when Price is constant
    - If AR is constant, AR=MR
    - If AR is diminishing , AR>MR
    - MR can be negative but not AR



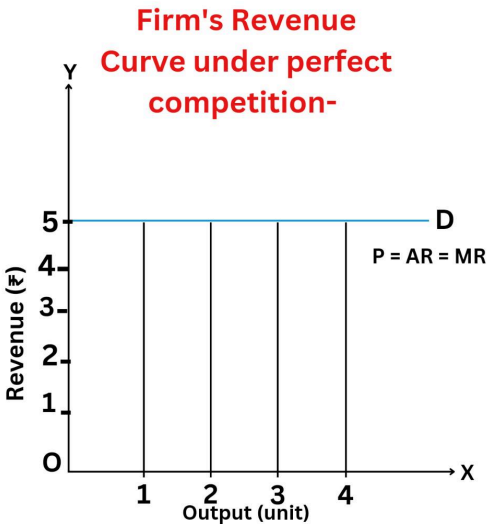
2. Relationship between TR and MR when Price is constant
    - TR = Σ MR
    - If MR is increasing, TR increases at increasing rate
    - If MR is diminishing, TR decreases at decreasing rate
    - If MR is constant, TR increases at constant rate



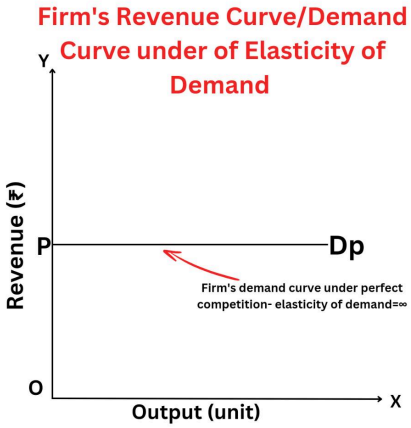
3. TR, AR and MR when price is not constant



4. Firms revenue curve under perfect competition

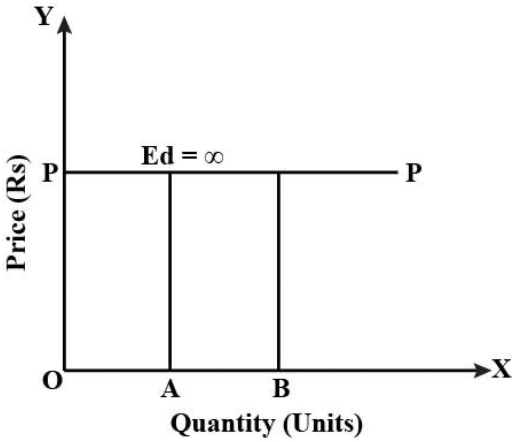


5. Firms revenue curve or Demand curve under perfect competition - Degree of Elasticity of demand

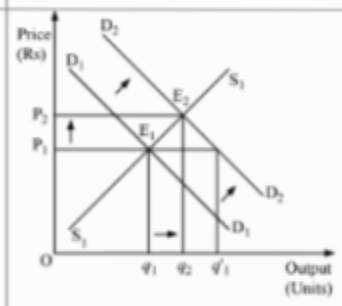
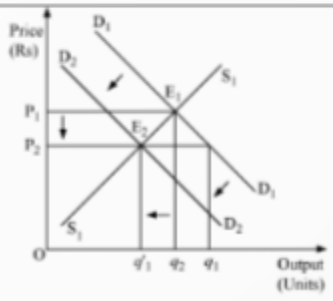


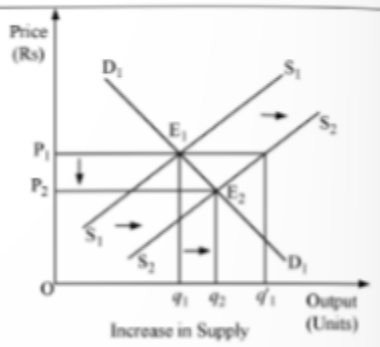
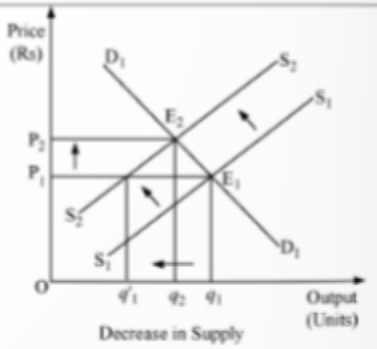
Perfect Competition

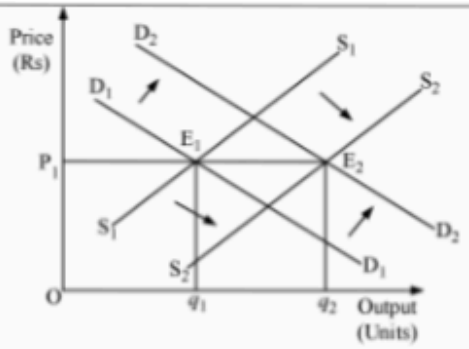
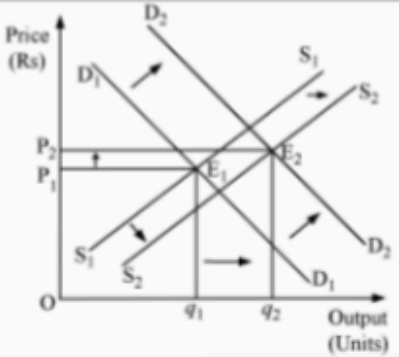
1. Firm's Demand Curve under perfect Competition

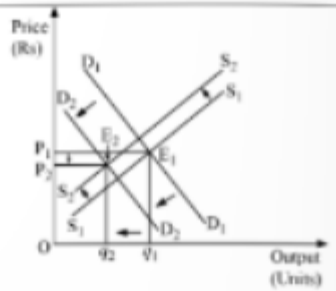
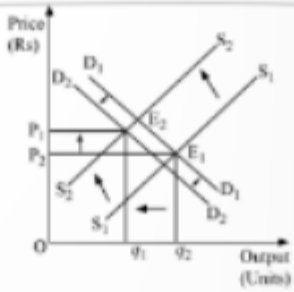


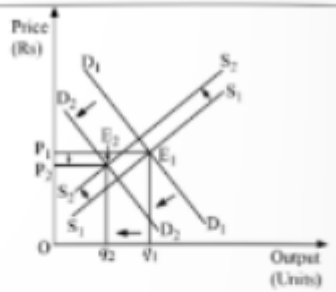
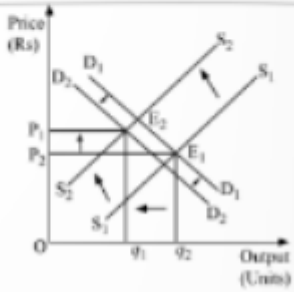
Market Equilibrium

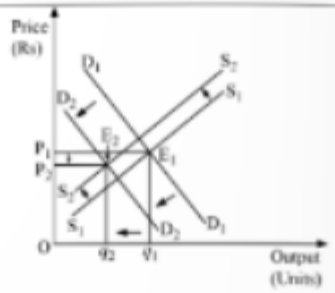
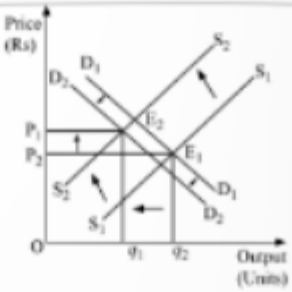
Demand	Demand Curve	Output	Price	
a) Increase in Demand	Rightwards	Rise	Rise	
b) Decrease in Demand	Leftwards	Fall	Fall	

a) Increase in Supply	Rightwards	Fall	Rise	
b)Decrease in Supply	Leftwards	Rise	Fall	

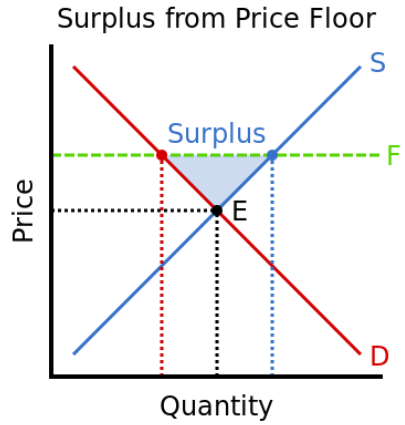
a) Increase in Demand = Increase in Supply	Unchanged	Increases	
b) Increase in Demand > Increase in Supply	Increases	Increases	

e) Decrease in Demand > Decrease in Supply	Falls	Falls	
f) Decrease in Demand < Decrease in Supply	Increases	Falls	

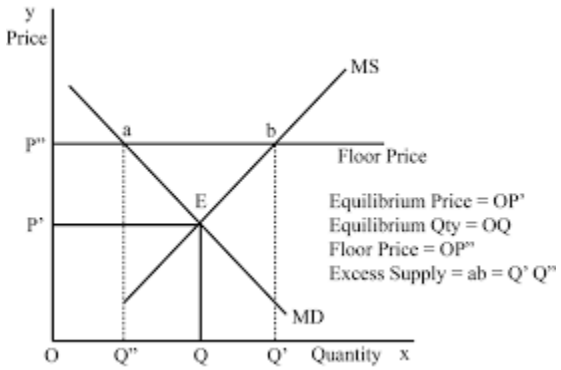
e) Decrease in Demand > Decrease in Supply	Falls	Falls	
f) Decrease in Demand < Decrease in Supply	Increases	Falls	

e) Decrease in Demand > Decrease in Supply	Falls	Falls	
f) Decrease in Demand < Decrease in Supply	Increases	Falls	

Price Ceiling

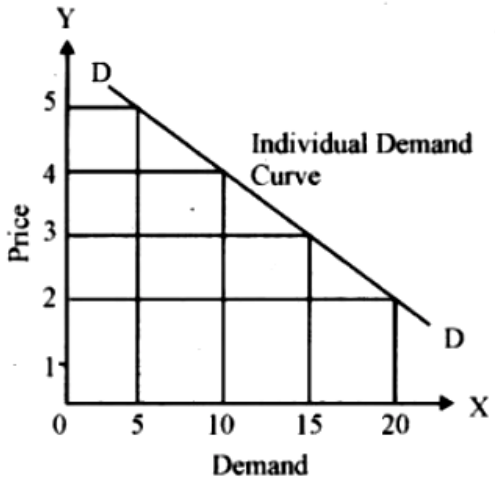


Price Floor

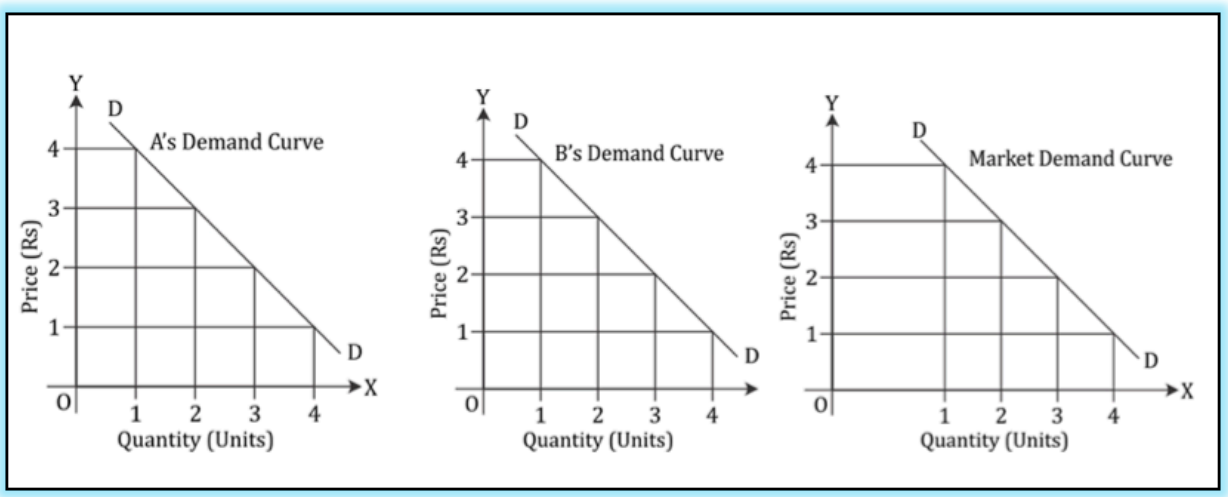


Theory of Demand

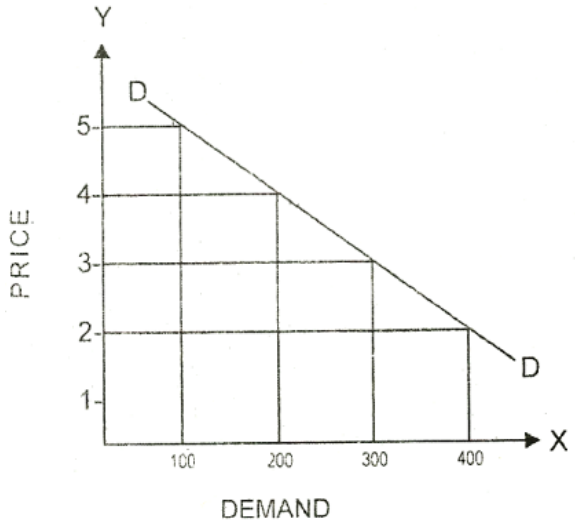
a) Individual Demand curve



b) Market demand curve

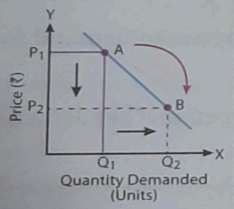
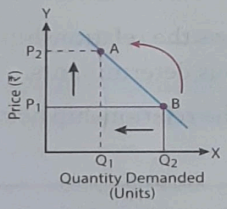
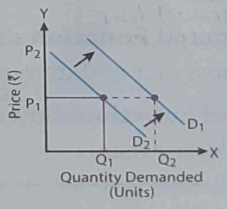
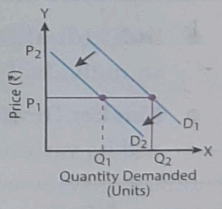


c) Law of demand curve



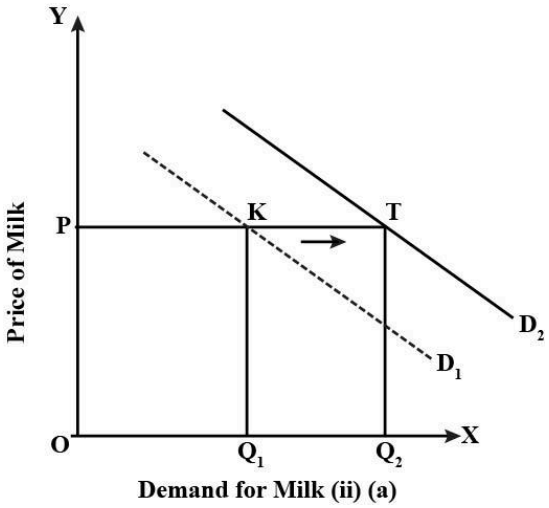
d) Change in quantity demanded and Change in demand

Movement along the Demand Curve and Shift in Demand Curve

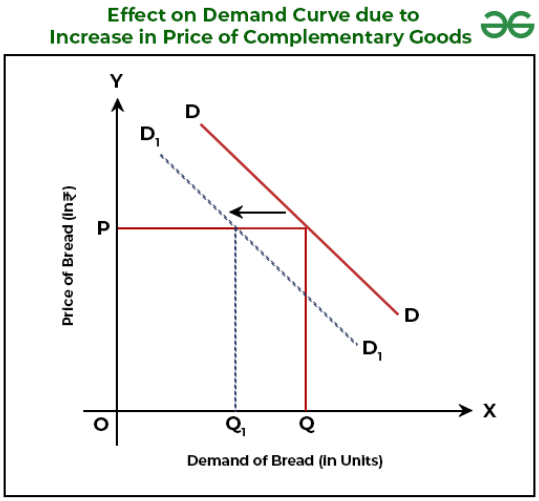
Basis of Difference	Movement along the Demand Curve Or Change in Quantity Demanded		Shift in Demand Curve Or Change in Demand	
Types	**Extension**	**Contraction**	**Increase**	**Decrease**
1. Meaning	Extension of demand refers to increase in quantity demanded due to decrease in own price of the commodity.	Contraction of demand refers to decrease in quantity demanded due to increase in own price of the commodity.	Increase in demand refers to increase in quantity demanded even when own price of the commodity is constant.	Decrease in demand refers to decrease in quantity demanded even when own price of the commodity is constant.
2. Assumption	Other determinants of demand (other than own price of the commodity) are constant.	Other determinants of demand (other than own price of the commodity) are constant.	Own price of the commodity is constant.	Own price of the commodity is constant.
3. Causes	↓P	↑P	↑Y(Normal goods) ↓Y(Inferior goods) ↑P_r(Substitutes) ↓P_r(Complements) Favourable Δ(T) ↑N Expected price ↑ Equal Y_d	↓Y(Normal goods) ↑Y(Inferior goods) ↓P_r(Substitutes) ↑P_r(Complements) Unfavourable Δ(T) ↓N Expected price ↓ Unequal Y_d
4. Tabular Presentation	Price (₹) / Q_D (Units): 10 / 4; 5 / 8	Price (₹) / Q_D (Units): 5 / 8; 10 / 4	Price (₹) / Q_D (Units): 10 / 4; 10 / 8	Price (₹) / Q_D (Units): 10 / 8; 10 / 4
5. Diagrammatic Presentation				
6. Description	Downward movement along the demand curve from left to right.	Upward movement along the demand curve from right to left.	Forward shift in demand curve.	Backward shift in demand curve.

[**Note:** Here, P = Own price of commodity – X, Pr = Price of related goods; Y = Income of the consumers; T = Tastes and preferences of consumers; E = Expectations of consumers; N = Population size/Number of buyers; Y_d = Distribution of income.]

e) Demand for a commodity in relation to increase in price of substitute goods: (decrease is the other way round)



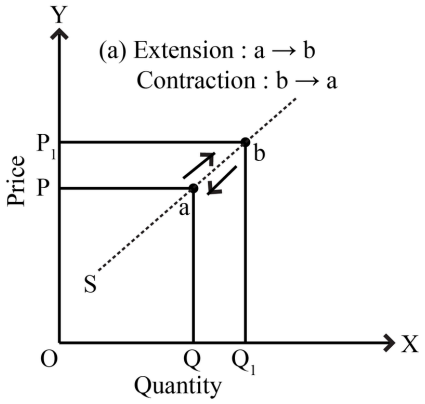
f) Demand for a commodity in relation to increase of price of complementary goods: (decrease is the other way round)



Theory Of Supply

Change in Quantity Supplied and Change in Supply

- **Changes in Quantity Supplied:** Due to changes in the price of the commodity, its quantity supplied changes.
  Extension and Contraction of Supply:
  - **Extension:** When the quantity supplied of a commodity increases due to a rise in its own price, it is called an extension of supply.
  - **Contraction:** When the quantity supplied of a commodity decreases due to a fall in its own price, it is called a contraction of supply.



- **Changes in Supply:** When the quantity supplied changes due to factors other than its own price.
  Increase and Decrease in Supply:
  - **Increase:** When the supply of a commodity is more while its price remains constant, it is known as an increase in supply.
  - **Decrease:** When the supply of a commodity is less while its price remains constant, it is known as a decrease in supply.