UNIT-II WELFARE ANALYSIS AND CONSUMER BEHAVIOUR

Welfare Analysis and Consumer Behaviour

Consumers' and Producers' Surplus

1. **Consumer Surplus:**
    - The difference between what consumers are willing to pay for a good and what they actually pay.
    - **Graphical Representation:** The area below the demand curve and above the price level.
2. **Producer Surplus:**
    - The difference between what producers are willing to accept for a good and what they actually receive.
    - **Graphical Representation:** The area above the supply curve and below the price level.

Price Ceilings and Price Floors

1. **Price Ceiling:**
    - A maximum price set by the government.
    - Causes shortages if set below the equilibrium price.
    - **Example:** Rent controls.
2. **Price Floor:**
    - A minimum price set by the government.
    - Causes surpluses if set above the equilibrium price.
    - **Example:** Minimum wage laws.

Consumer Behaviour

Axioms of Choice

1. **Completeness:** Consumers can compare and rank all possible bundles of goods.
2. **Transitivity:** If a consumer prefers A over B and B over C, then they prefer A over C.
3. **Non-Satiation:** More of a good is always preferred to less.
4. **Convexity:** Consumers prefer balanced bundles over extreme ones.

Budget Constraints and Indifference Curves

1. **Budget Constraint:**
    - Represents the combinations of goods that a consumer can afford given their income and the prices of goods.
    - **Equation:** $P_x \cdot X + P_y \cdot Y = I$, where P_x and P_y are the prices of goods X and Y, and I is the income.
2. **Indifference Curve:**
    - Represents combinations of goods that provide the same level of utility to the consumer.
    - **Properties:** Downward sloping, convex to the origin, and do not intersect.

Consumer's Equilibrium

Effects of a Price Change

1. **Substitution Effect:**
    - Change in consumption resulting from a change in relative prices, holding utility constant.
    - **Example:** If the price of tea decreases, consumers may buy more tea instead of coffee.
2. **Income Effect:**
    - Change in consumption resulting from a change in real income.
    - **Example:** If the price of tea decreases, consumers feel wealthier and may buy more of both tea and coffee.

Derivation of a Demand Curve

1. **Price Change:**
    - Leads to a movement along the demand curve.
2. **Income and Substitution Effects:**
    - Combined, they explain the overall change in quantity demanded when the price changes.

Applications

Tax and Subsidies

1. **Taxes:**
    - Increase the cost of goods, leading to a decrease in demand.
    - **Example:** A sales tax increases the price consumers pay, reducing demand.
2. **Subsidies:**
    - Decrease the cost of goods, leading to an increase in demand.
    - **Example:** A subsidy on solar panels reduces their cost, increasing demand.

Intertemporal Consumption

1. **Intertemporal Budget Constraint:**
    - Represents the trade-off between current and future consumption.
    - **Equation:** C1+C2(1+r)=IC_1 + \frac{C_2}{(1+r)} = I, where C1C_1 and C2C_2 are consumption in periods 1 and 2, and rr is the interest rate.
2. **Utility Maximization:**
    - Consumers allocate consumption over time to maximize their utility.

Suppliers' Income Effect

1. **Income Effect for Suppliers:**
    - Changes in income can affect the supply decisions of producers, similar to how it affects consumers' demand.
    - **Example:** If suppliers' income increases, they may invest more in production, increasing supply.