

Adam Smith:-

He says economics deals with the production of wealth, consumption of wealth, distribution and transaction of wealth.

Adriet Marshall:-

He says economics is the study of mankind in the ordinary business of life. It examine part of individual and social action which is closely connected to the attainment and use of materials for well-being.

Robins:-

He says economics deals with limited resources, unlimited wants and alternative use of resources.

Factors of Production:-

These are resources needed to produce goods and services.

Land (rent), labor (man power, wages), Capital (interest, produced goods), organization (profit)

Scarcity:- (low resources) condition of human

existence the exist when society has unlimited wants and needs but low resources used for their satisfaction.

Rationing:- A process by which we limit

Some amount of economics factors which is scarcely available.

Two methods of rationing are.

market and government.

Micro economics:-

Branch of economics deals with how individual, households and firms make decisions to allocate limited resources in market where goods and services are bought and sold.

It examines how these decisions affect the supply and demand for goods and services which determine prices and how prices in turn determine supply and demand of goods and services.

Macro economics:-

Macro economics involves sum total of economic activity, dealing with the issue of growth, inflation and unemployment with national economic policies relating to these issues and effect of government actions on them.

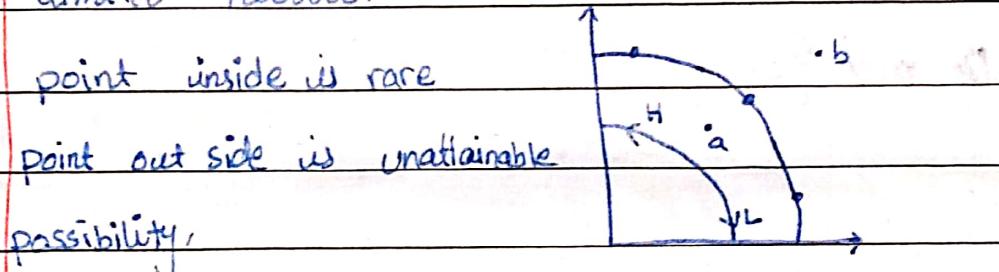
Marginal cost:-

Increment to total cost of producing an additional unit of some goods or services.

Marginal benefit-

Increment to total benefit derived from consuming an additional unit of goods or services.

PPF:- Production possibility frontier is the curve which joins all the points showing maximum amount of goods and services produced by a country in a given time, with limited resources.



opportunity cost:-

The loss of other alternatives when one is

chosen	Rice	cotton	opportunity cost
A	0	10	
B	1	9	1
C	2	7	2
D	3	4	3
E	4	0	4

Economic growth:-

GT is increase in total output of the country. When GDP is increasing GT means country is growing economically. This growth

is possible by increasing quantity or quality of economy's resources. (Labor, land, capital) ^{of entrepreneurship}

Law of demand:-

$D \uparrow$ (Price)

It states that holding all other factors constant

If prices of certain commodity rises, its quantity demand goes down other

factors are income, population, taxes of goods.

Demand curve

Q
quantity demand

Demand function

An equational representation of demand as a function of many determinants.

$$Q_d = f(P_g, T, P_{si} \dots P_{sn}, P_{ci} \dots P_{cm}, Y, B, P_{ge} + t)$$

P_g - Price of goods, T - tastes, $P_{si} \dots P_{sn}$ - Price of substitute goods, $P_{ci} \dots P_{cm}$ - Prices of complimentary goods, Y - Income, B - Income distribution)

Market demand curve:-

It is graphic representation of a market demand. Shows quantities of a commodity that consumers are willing and able to purchase during a period of time at various alternative prices while holding every thing constant else demand.

Supply:-

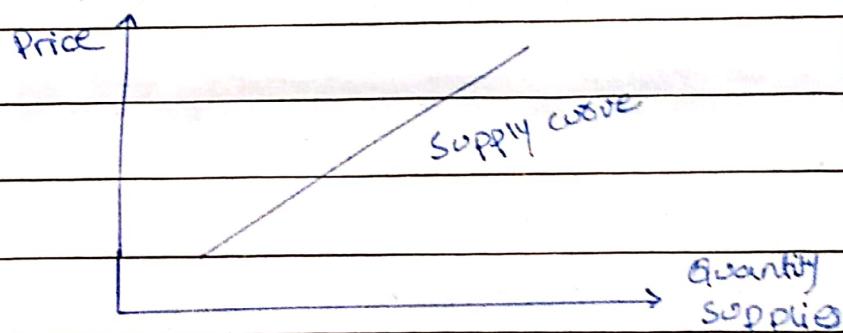
Quantity of goods seller wish to sell at convinient price.

Law of supply:-

As the quantity supplied goes up the prices goes up. As output increase cost will also increase. High price means more profit

Supply curve:-

A table showing various combination of quantity supplied and prices.



Supply function:-

An equational representation of supply as a function of all its determinants.

Quantity supplied = $f(\text{price})$

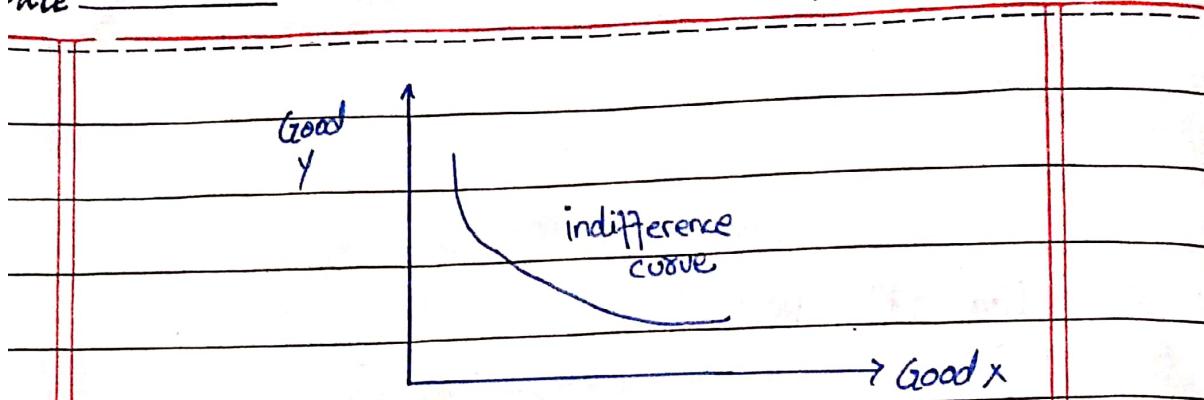
$Q_S = f(P_g, C_g, \alpha_1, \dots, \alpha_n, i_f, \dots, i_m, R, A, P_{ge}, t+1)$

Consumer Behaviour:-

IC: The curve which shows the combination of these goods which provide same level of substitution to consumer and cost less remain indifferent between them.

Date _____

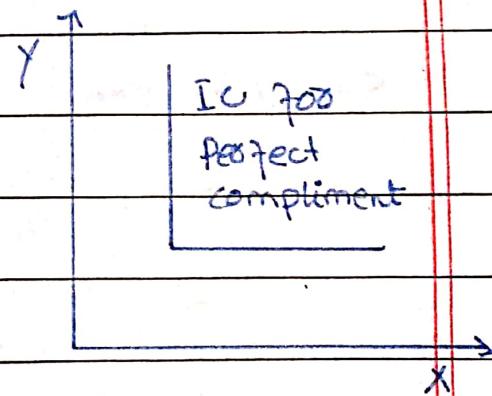
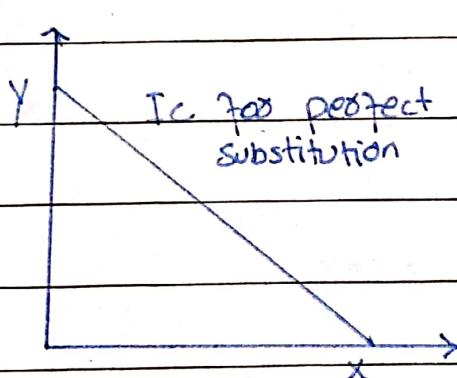
Day M T W T F S



Marginal Rate of Substitution:-

The average slope of IC between two points is given by the change in the quantity of goods y divided by change in the quantity of goods x. MRS states that how much unit of good we have to give up in off orders to get additional unit of goods.

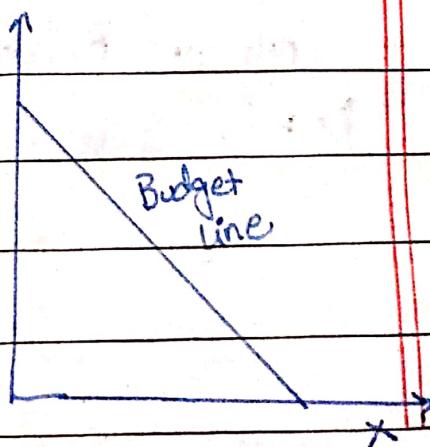
$$MRS = \frac{dy}{dx} = \frac{MU_x}{MU_y}$$



Budget Line:-

Line showing various combinations of 2 goods x and y that can be purchased.

If slope $-P_x/P_y$ is called input price ratio.



Equation of Budgetline:-

Budget line in term of $y = a + bx$

$$kx + ly = M$$

M = Money

$$ly = -kx + M$$

$k \neq 1$ = Pri

$$y = -kx + M$$

$\frac{M}{l}$ = interc

$$1 \quad l$$

$$-k = \frac{P_x}{P_y} = \text{slope}$$

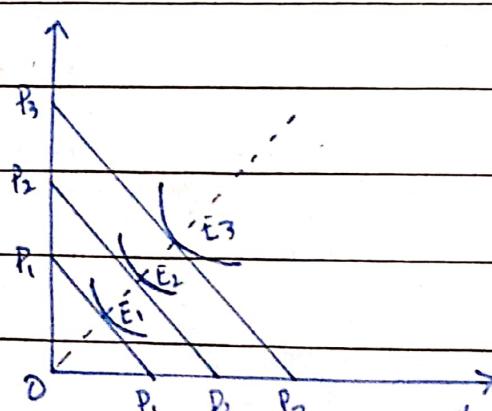
$$1 \quad P_y$$

ICC :- (Income effect)

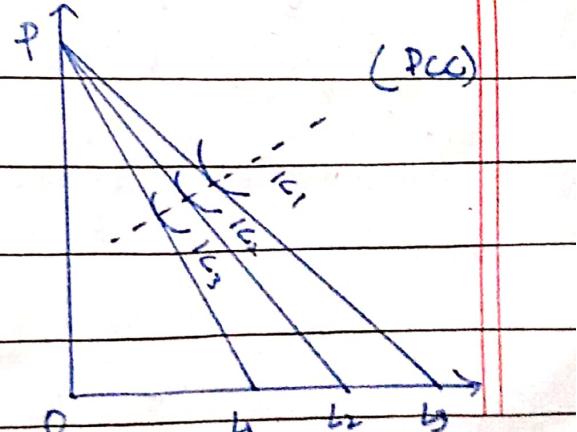
Income consumption curve is used to derive Engel curve which shows relationship between income and quantity demanded.

PCC :- (Price effect)

Price consumption curve is used to derive demand curve which shows relationship between price and quantity demanded.



(ICC)

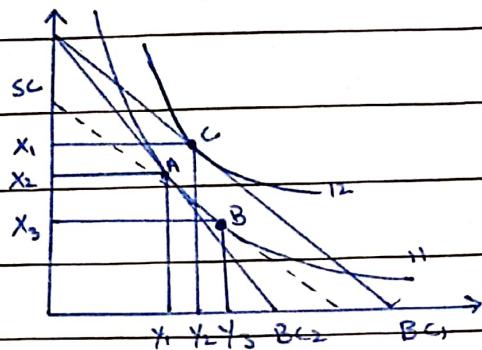


(PCC)

Date _____

Substitution effect:-

the decrease in sales for a product that can be attributed to consumers switching to cheaper alternatives when its prices rise.



Marshall and Slutsky theory of demand:-

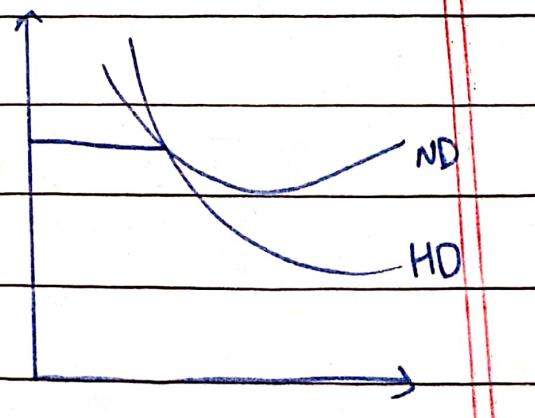
Slutsky method:-

To isolate substitution we adjust consumer money.

If income is altered in response to price change such that a new budget line is passing through old consumption bundle but with the slope determined by new prices and consumers optimal choice.

is on budget line, resulting change in consumption is

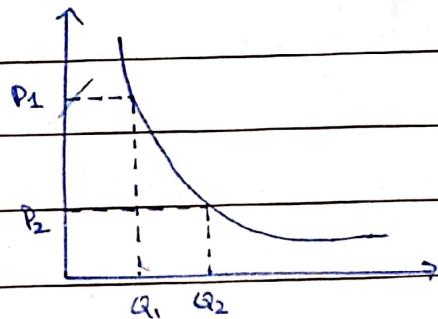
Slutsky substitution effect



Date _____

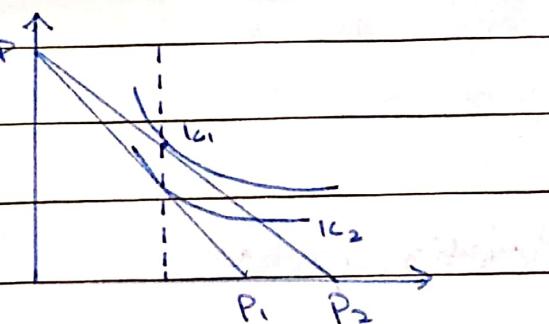
Consumer demand curve

The relationship between price and quantity of goods and services demanded for a given period of time.

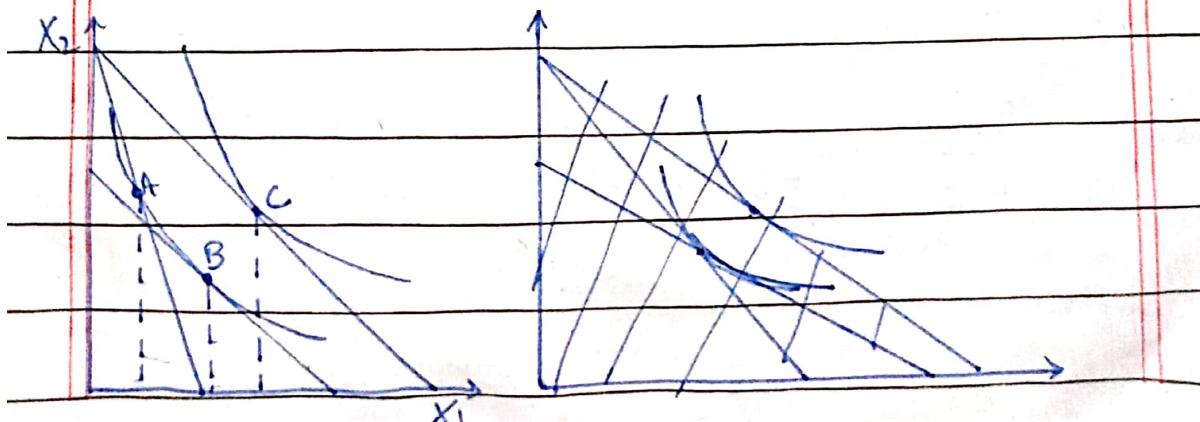
Price effect:-

The change experienced in the demand of certain goods or services after modification of its price

$$PE = SE + IE$$

Income effect:-

The change in demand for a good or service caused by increase or decrease in consumer's purchasing power

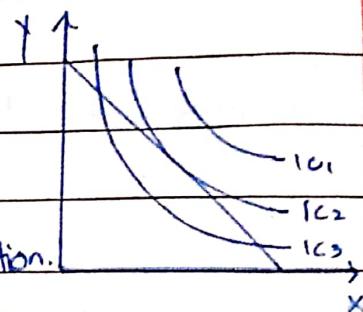


Date _____

Day M T W T F S

Equilibrium of consumer

- 1: IC convex to origin.
- 2: IC tangent to budget line,
a state of maximum satisfaction.



Conditions for good customer:-

When he aims to maximize his utility within his income

He consume atleast two goods

$$A > B \text{ but } A \neq B$$

$$A > B, B > C, A > C$$

→ Producer Behaviour:-

organized form of production in which someone are involved in the production of goods and services are known as firm

$$\pi = TR - TC$$

Production Function:-

A mathematical relationship between the production of a good or service and input used.

$$Q_i = f(K_i, L_i, N_i, E_i, T_i, P_i)$$

Cobb-Douglas Production Function:-

A production function widely used to represent relationship of an output to input proposed by knut wicksell and statistically tested by Paul Douglas and charles cobb in 1928.

$$Q_i = A K_i^\alpha L_i^{1-\alpha}$$

Short Run: A period of time in which production decisions for a firm is analyzed.

Long Run: a period of time in which all input for production is variable.

Short Run productivity theory:-

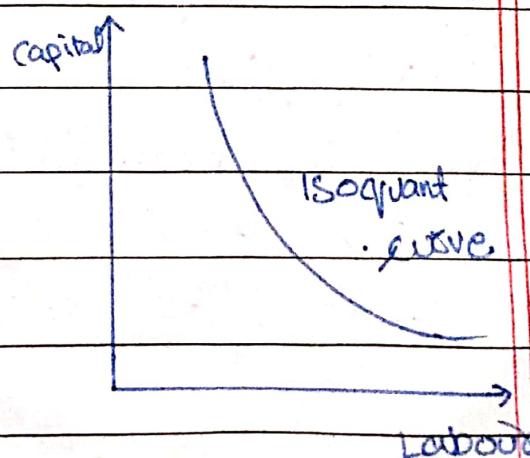
As we increase amount of variable factors with fixed factor the output will increase but afterward there will come a point when each extra unit of variable factor produce less extra output than previous unit.

Long Run productivity theory:-

In long run all factors are variable and in this theory includes constant increasing and decreasing return to scale.

ISOQUANT Curve:

An Isoquant represent different combinations of factors of production that a firm can employ to produce same level of output.



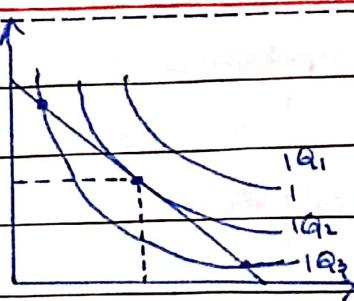
If total production is maximum then marginal production is zero.

Date: _____

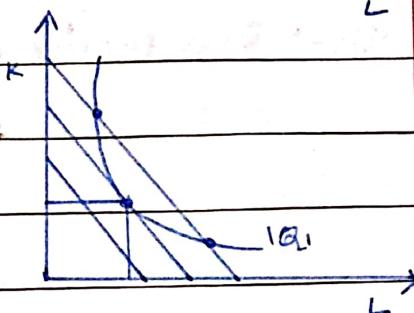
Day M T W T F S

conditions of isoquants:-

- Given cost maximization output.

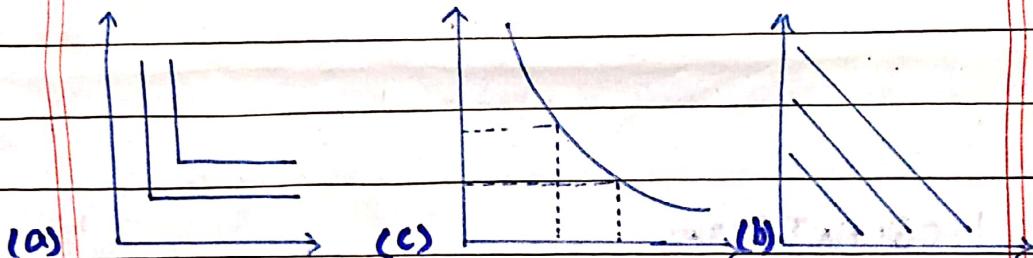


- Given output minimum output.



Shapes:-

- a L shape (Zoo equilibrium)
- b Perfect substitute (straightline)
- c Simple substitute (wave line)



Perfect competition:-

A perfect competition is when all companies sell identical products, market share does not influence price, companies are able to enter and exit without barrier, buyers have perfect information and companies cannot determine prices.

Total Revenue must be same in perfect competition

Date _____

Day M T W T F S

Total Revenue (TR) or (MR)Total cost (TC) or (MC) $\therefore MC = FC + VC$

$$\text{Profit } \pi = TR - TC$$

$$= MR - MC \Rightarrow MR = AR$$

Conditions for equilibrium.

- $MC = MR$

- Slope of $MC >$ slope of MR

$$\alpha = TR - TC$$

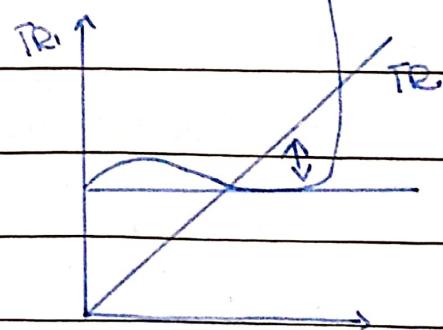
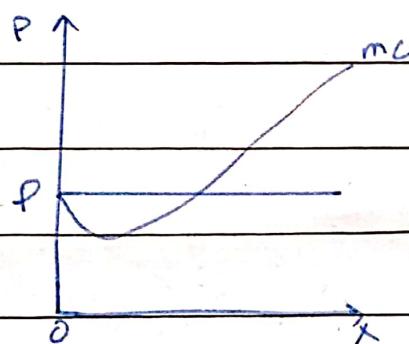
$$\frac{d\pi}{dx} = MR - MC$$

$$\frac{d^2\pi}{dx^2} \Rightarrow \text{slope of } MR - \text{slope of } MC$$

① $MR - MC = 0$ ② $\frac{d^2\pi}{dx^2} < 0$

$$MR = MC$$

$$d\pi/dx$$

Assumptions:-

Large sellers and large buyers

Identical goods

Free entry Free exit

Perfect mobility of factors of production

Perfect knowledge.