

BBA 202: Micro Economics

Course Objective:

To give an insight into the various concepts of economics and its implications in the business world.

Course Content:

Unit I

(8 lectures)

Definitions of Economics: Introduction to Micro Economics- Definition, Scope, and Importance. **Utility Analysis:** Concept of utility, Law of Diminishing Marginal Utility, Law of equi-marginal utility, Consumer's Surplus.

Unit II

(10 lectures)

Theory of Demand: Meaning & Determinants of Demand, Law of Demand, Exceptions to law of demand. **Theory of Supply:** Meaning & determinants of Supply, Law of supply, exceptions to law of supply. **Cost analysis:** Accounting Costs and Economic Costs. **Short Run Cost Analysis:** Fixed, Variable and Total Cost Curves, Average and Marginal Costs curves, Long Run Cost Analysis: Average and Marginal Cost Curves.

Unit III

(10 lectures)

Revenue: Total, Average and Marginal Revenue, Relationship between AR and MR curves. **Pricing under Various Market Conditions:** Perfect Competition - Equilibrium of Firm and Industry under Perfect Competition, Monopoly - Price Determination under Monopoly, Monopolistic Competition - Price and Output Determination under Monopolistic Competition.

Unit IV

(10 lectures)

Theory of Distribution: Marginal Productivity theory of Distribution

Rent: Concepts of Differential Rent, Scarcity Rent, Economic rent, Contract Rent, Quasi Rent and Pure Rent. **Modern theory of rent.** **Wages:** Money Wages and Real Wages, factors determining real wages. **Theories of wages:** wage fund theory, subsistence theory, residual claimant theory **Theories of Profit-** risk theory of profit, uncertainty-bearing theory of profit, innovation theory of profit.

SUGGESTED READINGS

- Textbook of Economic Theory
- Introduction to Positive Economics
- Business Economics (Micro)
- Micro Economics - M. L. Seth
- 5. Micro Economics
- Managerial Economics - Theory and Application
- Managerial Economics
- Introduction to Micro Economics

Stonier and Hague
Richard G. Lipsey
Dr. Girijashankar,
M. L. Jhingan;
D. M. Mithani
D.N. Dwivedi;
C.B. Sachdeva

(Scottish Philosopher)

→ ADAM SMITH is the father of micro-Economics.

→ JOHN MAYNARD KEYNES is the father of MACRO-Economics.

* According to Maurice Dobb, micro-Economics is in fact a microscopic study of the economy.

UNIT-1

(DEFINITIONS OF ECONOMICS)

→ What is an Economy?

You must have observed many activities happening around you in your life. For instance, you may have seen factories, mines, shops, offices, flyovers etc.

All these institutions & organisations may be collectively called an Economy. Such units enable people to earn an income and at the same time help to produce goods and services which people require for use.

* An Economy is a system which provides people the means to work and earn a living.

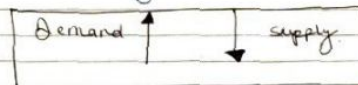
→ Why study Economics?

→ The main reason for study of Economics can be simplified to a single word "SCARCITY".

∴ We all know, human wants are more than the available resources. So, there is a need to allocate these scarce resources for the satisfaction of never ending human wants.

SCARCITY :-

Scarcity refers to the limitation of supply in relation to demand for a commodity.



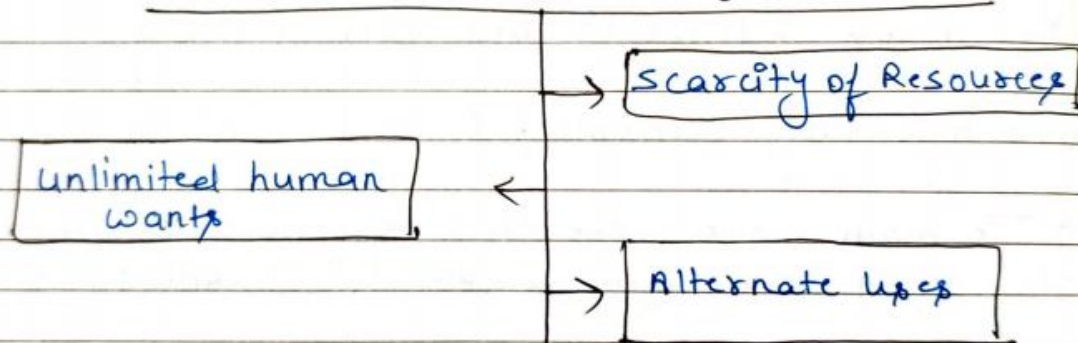
ECONOMIC PROBLEM

As we know, human wants are unlimited, but the means to satisfy them are limited. Therefore, all our wants cannot be fulfilled. In order to maximise satisfaction, every consumer exercises choice, as to which goods should be consumed and in what quantity.

* An economic problem is basically a problem of choice.

* Economic problem is a problem of choice involving satisfaction of unlimited wants out of limited resources having alternative uses.

REASONS FOR ECONOMIC PROBLEM



① SCARCITY OF RESOURCES

Resources are limited in relation to their demand and economy cannot produce all what people want. It is the basic reason for existence of economic problems in all economies. Scarcity is universal and applies to all individuals, organisations & countries.

② UNLIMITED HUMAN WANTS

Human wants are never ending, i.e. they can never be fully satisfied. As soon as one want is satisfied, another

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new want emerges - wants of the people are unlimited and keep on multiplying and cannot be satisfied due to limited resources -

Human wants also differ in priorities. i.e all wants are not of equal intensity. for every individual, some wants are more important as compared to others. Due to this reason people allocate their resources in order of preference to satisfy some of their wants -

③ ALTERNATE USES

Resources are not only scarce, but they can also be put to various uses. It makes choices among resources, more important. ex petrol is used not only in vehicles but also for running machines, generators etc.

AS a Result, economy has to make choice b/w the alternative uses of the given resources.

MICRO-ECONOMICS ✓✓

d
[Adam Smith] is considered to be the founder of the field of micro economics.

The Term 'micro' has been derived from greek word 'mikros' which means 'SMALL'.

→ Micro-Economics deals with analysis of behaviour and economic actions of small and individual units of the Economy, like a particular consumer, a firm or a small group of individual units.

→ The concept of micro-economics was introduced by Ragnar Frisch.

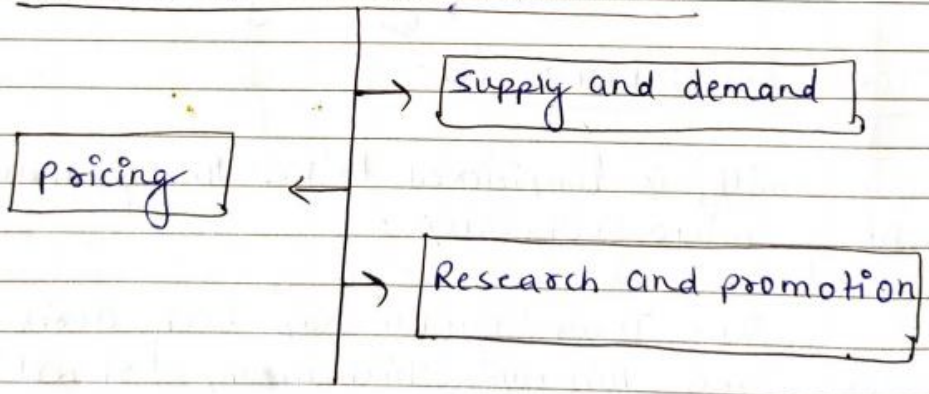
MACRO-ECONOMICS

The Term 'MACRO' has been derived from the greek word 'MAKROS' which means 'large' so macro-Economics deals with overall performance of the economy. It is concerned with study of problems of the economy like Inflation, unemployment and poverty etc.

MICRO VS MACRO

- * In MICRO-ECONOMICS, the letter 'I' stands for 'INDIVIDUALS', i.e it studies the economic behaviour of individuals.
- * In 'MACRO-ECONOMICS' the letter 'A' stands for 'Aggregates' i.e it studies the economy as a whole.

NATURE OF MICRO-ECONOMICS



① SUPPLY AND DEMAND

Supply and demand is one of the most important concept in micro-Economics.

This is the comparison of the level of consumer

demand for supply in the

② PRICING

Size of the if you offer dictate you might product alienation long term-

③ RESEARCH

understanding & Re

customer & best match

To advertising to promote marketing competitive

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What is

demand for particular goods to the available supply in the market place.

② PRICING

The higher your prices, the lower the size of the population who will buy them. However, if you offer lower prices than the market demand dictates, you leave money on the table and you might also end up with storage of your product or services. This can cause customer alienation and negatively affect the business in the long term.

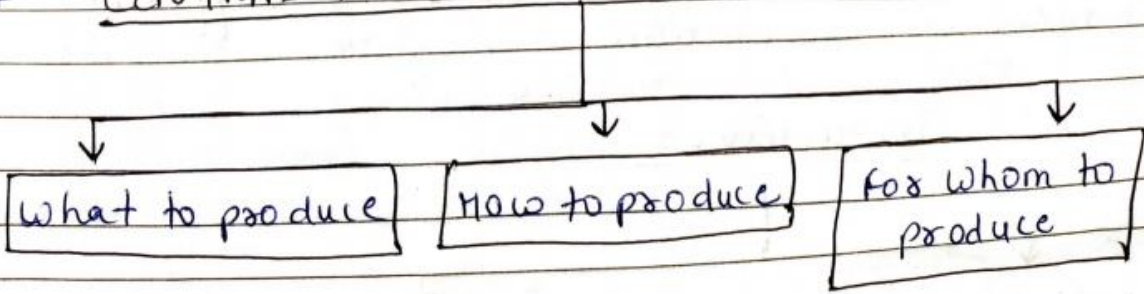
③ RESEARCH & PROMOTION

Understanding microeconomics helps in effectively Researching & promoting products.

Research is useful in investigating potential customer demand and in developing products that best match desired benefits.

This benefits you once you pay for advertising and use other promotional techniques to promote your brand and its benefits. These marketing techniques are critical in achieving competitive advantages over other companies.

* CENTRAL PROBLEMS OF AN ECONOMY



① WHAT TO PRODUCE

This problem involves selection of goods and services to be produced and the quantity to be produced of each selected commodity.

The problem of 'what to produce' has two aspects:-

(i) What possible commodities to produce :-

An Economy has to decide, which consumer goods (rice, wheat, clothes etc) and which of the capital goods (machinery, equipments etc) are to be produced. In the same way, economy has to make a choice b/w civil goods (bread, butter) and war goods (guns, tanks etc).

(ii) HOW MUCH TO PRODUCE

After deciding the goods to be produced, economy has to decide the quantity of each commodity, that is selected. It means, it involves a decision regarding the quantity to be produced of product.

② HOW TO PRODUCE

This problem refers to selection of technique to be used for production of goods and services.

* A goods can be produced using different techniques of production

TECHNIQUES

(LIT)

(CIT)

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② In capital

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Labour intensive technique

capital intensive technique

Date.....

selection
quantity

(1) In Labour Intensive technique, more labour and less capital (in the form of machine, etc) is used.

specifi-

(2) In Capital intensive technique, there is more capital and less labour utilization.

size,
goods
in
size
goods

* The selection of techniques is made with a view to achieve the objective of raising the standard of living of people and to provide employment to everyone.

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side

ex in India; LIT is preferred due to abundance of labour, whereas, countries like U.S.A, England etc prefer 'CIT' due to shortage of labour and abundance of capital.

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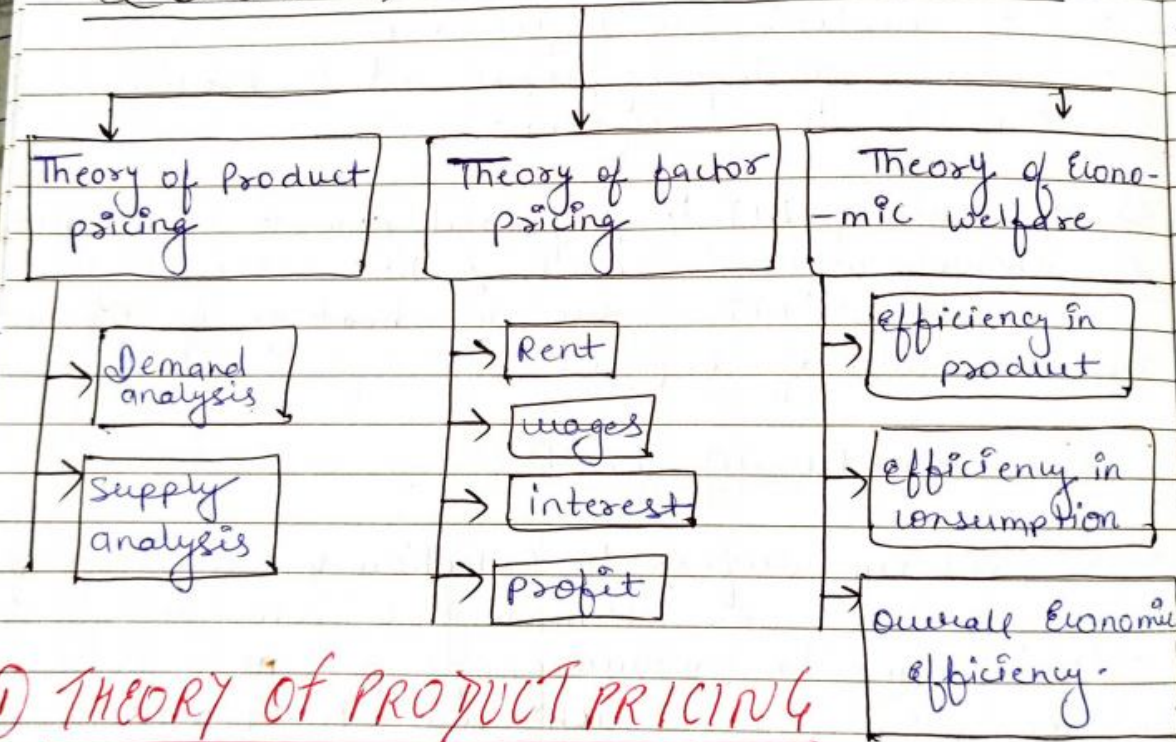
(3) FOR WHOM TO PRODUCE

This problem refers to selection of the category of people who will ultimately consume the goods i.e. whether to produce goods for more poor and less rich or more rich and less poor.

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ces.

* Since resources are scarce in every economy, no society can satisfy all the wants of its people. Thus, a problem of choice arises. Goods are produced for those people who have the paying capacity. The capacity of people to pay for goods depend upon their level of income.

SCOPE OF MICRO-ECONOMICS



when supply the market

(2) THE

→ The Theory of production of products of Enterprises

→ It is the good factors to the form

* Enterprises

(3) TH

→ It ties of use

(i) It means goods used

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(1) THEORY OF PRODUCT PRICING

→ The Theory of price in micro-economics states that the price of a particular good or services is determined by the relationship between producer supply and consumer demand at any given point.

* Prices should rise if demand exceeds supply & fall if supply exceeds demand.

Date.....
When supply and demand are equal/balanced, the market is said to have achieved equilibrium.

② THEORY OF FACTOR PRICING

→ The Theory of factor pricing deals with the determination of the share prices of four factors of production, namely land, labour, capital and Enterprise.

→ It is also known as the theory of distribution. The goods are produced with the joint efforts of factors of production. The reward is to be given to the owners of the factors of production in the form of wages, salaries, rent, interest, profit etc.

* Land → Rent, Labour → wages, Capital → interest, Entrepreneur → Profit.

③ THEORY OF ECONOMIC WELFARE

→ It is studied how to distribute the given quantities of goods and services among different consumers so as to maximize the economic welfare.

(i) EFFICIENCY IN PRODUCTION

Efficiency in production means producing maximum possible amount of goods and services from the given amount of resources.

ex. water bottle used in gardening or decoration.

(ii) EFFICIENCY IN CONSUMPTION

Efficiency in consumption means distribution of produced goods and services among the people for consumption in such a way as to maximize total satisfaction of the society.

→ It also such as profits commodities

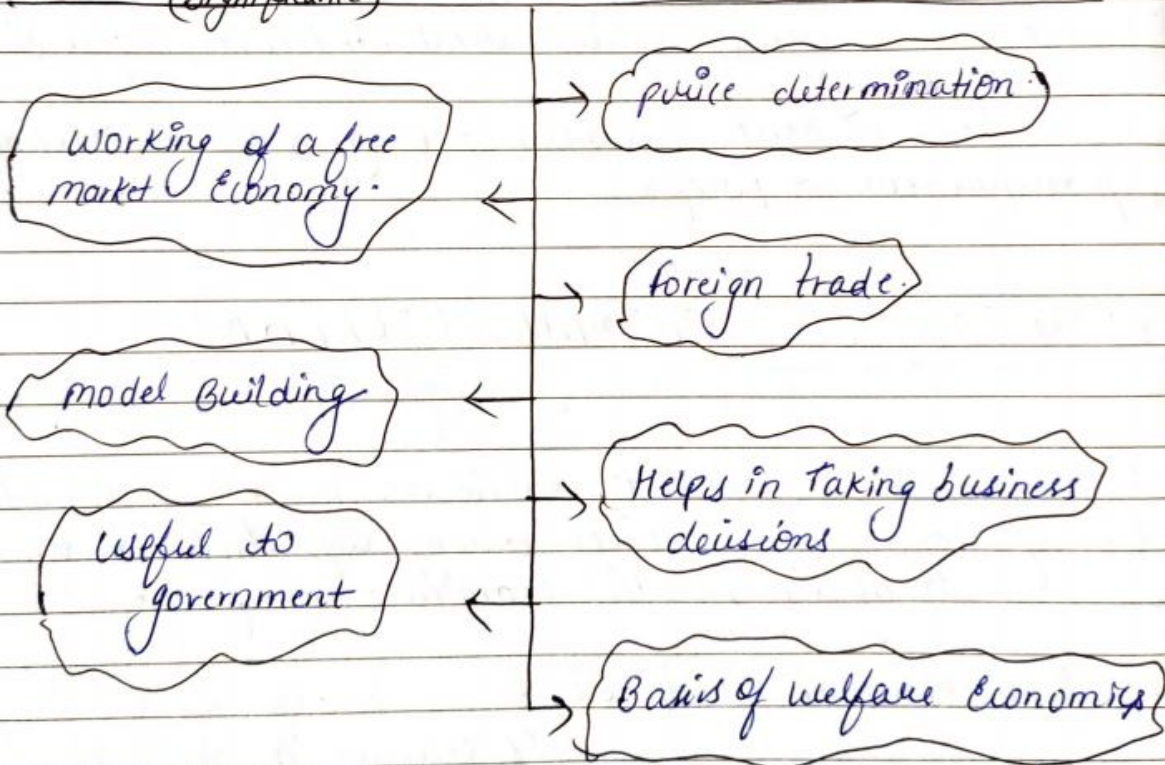
(2) WORK

(iii) OVERALL ECONOMIC EFFICIENCY

Overall efficiency means the production of those goods which are most desired by people.

→ free economic such as whom to -uals.

IMPORTANCE OF MICRO-ECONOMICS
(Significance)



→ These consume

→ micro working

(3) FO

→ micro -tional

EXPOR

(1) PRICE DETERMINATION

IMPORT

micro - Economics helps in explaining how the prices of different commodities are determined.

→ It also explain how the prices of production such as rent for ^{land} labour, wages for labour & profits for entrepreneurs are determined in the commodity and factor market -

② WORKING OF A FREE MARKET ECONOMY (no interference of government)

→ free market economy is that economy where the economic decisions regarding production of goods such as "what to produce", "How much to produce", "Whom to produce etc" - are taken by private individuals.

→ These decisions are based on the preference of the consumer or demand for the product.

→ micro Economics theory helps in understanding the working of the free market economy.

③ FOREIGN TRADE Export → (out) Import ← (in)

→ micro - Economics helps to explain many international trade aspects. Such as. Export or import

} EXPORT :- Sales our goods & services to another country.

IMPORT :- Bring goods & services into a country from abroad for sale.

of

→ It is also useful in public finance to analyze both the incidence as well as effect of a particular tax.

(4) MODEL BUILDING

micro-Economics construct and uses simple models in order to understand the actual economic phenomenon. It uses abstract models to explain the economic phenomenon. concept

(5) HELPS IN TAKING BUSINESS DECISIONS

→ micro-Economics theory help businessman to determine their price, policy, maximum level of output and achievement of maximum productivity from factors combination.

(6) USEFUL TO GOVERNMENT

→ government also use micro-Economics for taxation.

* micro-Economics explains how imposition of different types of direct and in-direct taxes leads to attainment of social welfare.

(7) BASIS OF WELFARE ECONOMICS

→ The Entire structure of micro-Economics has been built on the basis of price theory. Which

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is an important constituent of micro-economics. It suggests the conditions of efficiency and explains how it can be achieved. It helps in improving the standard of living of the population.

CONCEPT OF UTILITY

Q Suppose you have just eaten an ice-cream and a chocolate. Can you tell how much are you satisfied from each of these items?

15 probably you can tell which item you liked more. But, it is very difficult to express "how much you liked one over the others". It is evident, that we need a more quantitative measure of satisfaction. due to this reason, economists developed the concept of utility.

MEANING OF UTILITY

→ utility refers to want satisfying power of a commodity.

It is the satisfaction, actual or expected derived from the consumption of a commodity. utility differs from person to person, place to place and time to time.

ACCORDING TO "Prof. HOBSON"

↳ utility is the ability of a good to satisfy a want

HOW TO MEASURE UTILITY?

units of utility obtained from that good

→ Economist assumed that utility can be measured in cardinal (numerical) terms. By using cardinal measure of utility, it is possible to numerically estimate utility which a person derives from consumption of goods and services.

ex if the 1 unit of good then TU is 10

But there was no standard unit for measuring utility so, the Economist devised an imaginary measure, known as "UTIL".

if the 3 units of good then TU is 30

* Utilis are imaginary and psychological units which are used to measure satisfaction obtained from consumption of a certain quantity of a commodity.

TU can be measured by $TU_n =$

Example - Suppose you have just eaten an ice-cream and a chocolate. You agree to assign 20 utils as utility derived from the ice-cream. Now the question is how many utils be assigned to the chocolate?

if you liked the chocolate less, then you may assign less than 20. However, if you liked it more, you would give it a number greater than 20. Suppose you assign 10 utils to the chocolate, then it can be concluded that you liked the ice-cream twice as much as you liked the chocolate.

MARGINAL UTILITY
→ marginal utility from the commodity
→ It is the change in total utility

TOTAL UTILITY (TU)

→ Total utility refers to the total satisfaction obtained from the consumption of all possible

ex. A person consumes 10 units of a commodity

units of commodity. It measures the total satisfaction obtained from consumption of all the units of that good.

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ex if the 1st ice-cream gives you a satisfaction of 20 utils and 2nd one gives 16 utils, then TU from 2 ice-cream is $20 + 16 = 36$ utils.

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if the 3rd ice-cream generates satisfaction of 10 utils, then TU (total utility) from 3rd ice-cream will be $\rightarrow 20 + 16 + 10 = 46$ utils.

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dity.

TU can be calculated as

$$TU_n = U_1 + U_2 + U_3 + \dots + U_n$$

and where $TU_n \rightarrow$ Total utility from n units of given goods.
 $U_1, U_2, U_3 \rightarrow$ utility from 1st, 2nd, ..., n th unit
 $n \rightarrow$ number of units consumed.

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MARGINAL UTILITY (MU)

\rightarrow marginal utility is the additional utility derived from the consumption of one more unit of the given commodity.

\rightarrow It is the utility derived from the last unit of a commodity purchased.

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ex As per given example, when 3rd ice-cream is consumed, TU increase from 36 utils to 46 utils.

The additional 10 utils from the 3rd ice-cream is the MU.

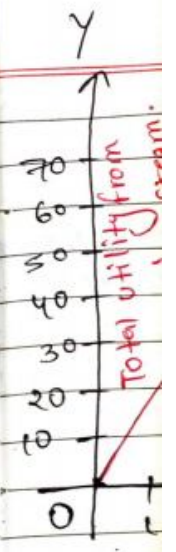
→ In other words of 'Chapman', marginal utility is addition made to total utility by consuming one more unit of a commodity.

MU can be calculated as: $MU_n = TU_n - TU_{n-1}$

MU of 3rd ice-cream will be: $MU_3 = TU_3 - TU_2$
 $= 46 - 36 = 10 \text{ utils}$

MU can also be calculated as:-

$MU = \frac{\text{change in total utility}}{\text{change in number of units}} = \frac{\Delta TU}{\Delta Q}$



* In along an increasing sth

* Total utility can also be calculated as the sum of marginal utilities from all units, i.e.

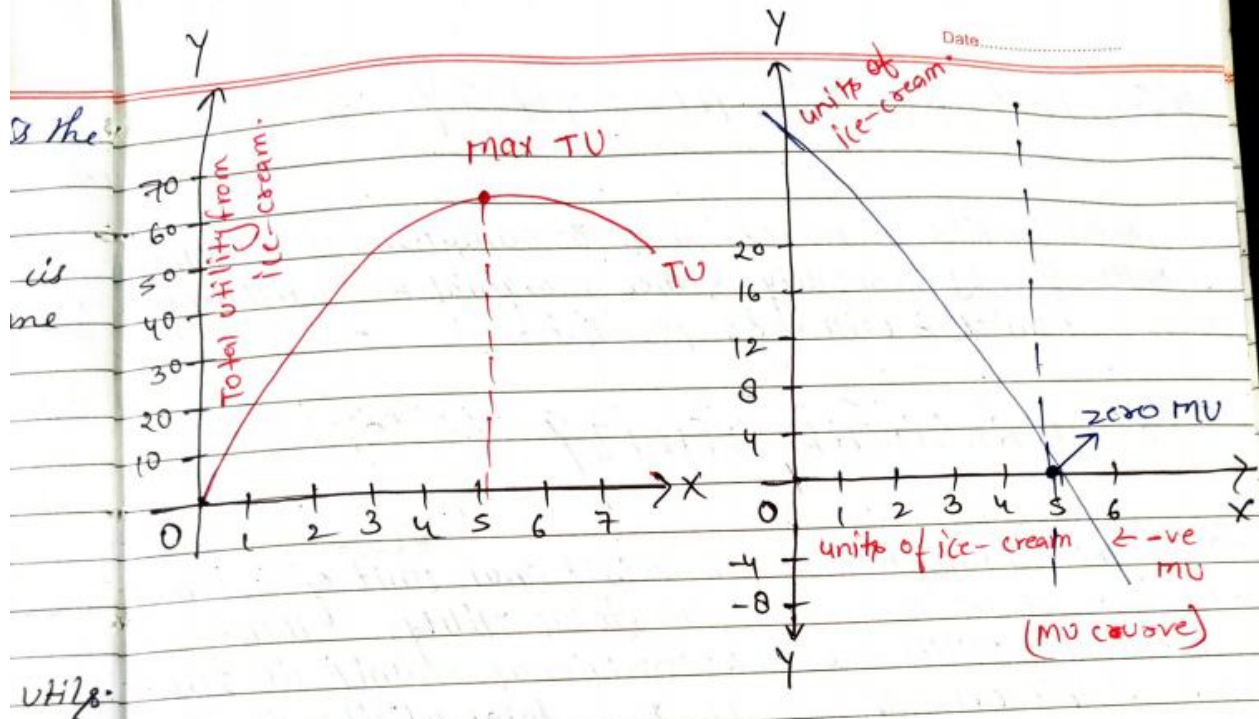
$TU_n = MU_1 + MU_2 + MU_3 + \dots + MU_n$

$TU = \sum MU$

→ This stage

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* In above fig. units of ice-cream, are shown along the X-axis and TU and MU are measured along the Y-axis. MU is positive and TU is increasing till the 4th ice-cream. After consuming the 5th ice-cream, MU is zero and TU is max.

→ This point is known as the point of satiety or the stage of maximum satisfaction.

After consuming the 6th ice-cream, MU is (-ve) (known as disutility) and total utility starts diminishing.

→ Disutility is the opposite of utility. It refers to loss of satisfaction due to consumption of too much of a thing.

POSITIVE MARGINAL UTILITY

If total utility increases from consumption of additional units of a commodity, then marginal utilities of these units will be positive.

ZERO MARGINAL UTILITY

→ If the consumption of an additional unit of a commodity causes no change in the total utility, then marginal utility of the additional unit is zero. At this level of consumption, total utility is at its maximum. This point is also known as the point of maximum satisfaction.

NEGATIVE MARGINAL UTILITY

→ If the consumption of an additional unit of a commodity causes a fall in the TU. It means that the marginal utility of that unit is negative. NU is also known as disutility.

RELATIONSHIP B/W TU & MU

① TU increases with an increase in consumption of a commodity as long as MU is positive, i.e., till the 4th ice-cream. In this phase, TU increases, but a diminishing rate as MU from each successive unit tends to diminish.

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③ when max. So negative.

LAW

→ Law states of a consumer success

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stage of glass drops to consume to dis

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② When TU reaches its maximum, MU becomes zero, i.e., when 5th ice-cream is consumed. This is known as point of max. satisfaction. TU curve stops rising at this stage.

③ When consumption is increased beyond the point of max. satisfaction, TU starts falling as MU becomes negative.

LAW OF DIMINISHING MARGINAL UTILITY

→ Law of diminishing marginal utility (DMU) states that as we consume more and more units of a commodity, the utility derived from each successive unit goes on decreasing.

ex Suppose your father has just come from work and you offer him a glass of juice. The first glass of juice will give him great satisfaction. The satisfaction with the second glass of juice will be relatively lesser.

with further consumption, a stage will come, when he would not need any more glass of juice, i.e. when the marginal utility drops to zero. After that point if he is forced to consume even one more glass of juice, it will lead to disutility.

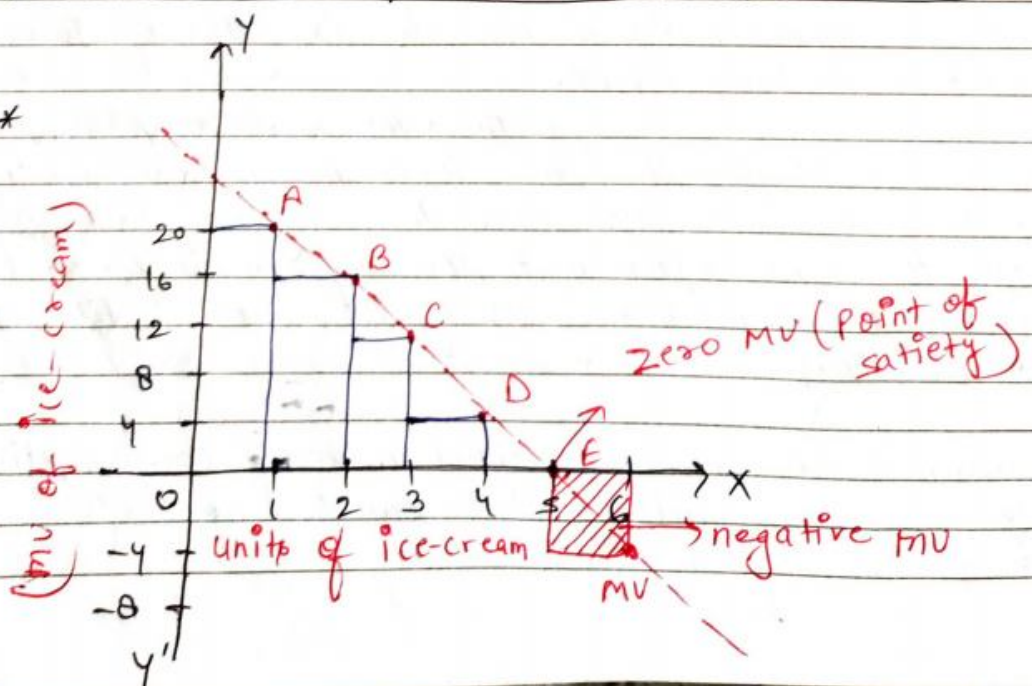
→ Such a decrease in satisfaction with consumption of successive units occurs due to 'Law of Diminishing marginal utility'.

→ Law of DMU has universal applicability and applies to all goods and services. This law was first given by a German economist H. H. Gossen. *that is why, it is also known as "Gossen's first law of consumption".*

→ In the diagram along the y-axis from each point A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UU, UV, UW, UX, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UU, UV, UW, UX, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ

DIAGRAMMATIC EXPLANATION OF LAW OF DMU

Units of ice-cream	TV (in utils)	MU (in utils)
1	20	20
2	36	16
3	46	10
4	50	4
5	50	0 (Point of satiety)
6	44	-6



Showing each and smaller cream. MU of when consumption then to 3rd ice (MU=0) and satiety. which becomes negative. Showing

→ MU may be more as compared to the circumstances that MU con

→ NO fit in law of DMU. at a slow at a uniform that MU of a give

→ In the diagram, units of ice-cream are shown along the X-axis and MU along the Y-axis. MU from each successive ice-cream is represented by point A, B, C, D & E.

As seen, the rectangle (showing each level of satisfaction) become smaller and smaller with increase in consumption of ice-cream. MU falls from 20 to 16 and then to 10 utils, when consumption is increased from 1st to 2nd and then to 3rd ice-cream. 5th ice-cream has no utility (MU=0) and this is known as the 'Point of Satiation'. When 6th ice-cream is consumed, MU becomes negative. MU curve slopes downwards showing that MU of successive units is falling.

→ MU may increase initially :- In certain situation MU may increase. For example, A thirsty person may be more satisfied with 2nd glass of water as compared to the 1st one. It all depends on the circumstances. But, Economists normally assume that MU continuously falls.

→ No indication about the rate of fall in MU :- Law of DMU says nothing about the rate of decline of MU. It does not specify whether MU falls at a slow or a fast rate or whether it declines at a uniform or a variable rate. It just states that MU falls with increase in the consumption of a given commodity.

→ Synonyms of Law of DMU :- It is also known as the 'fundamental law of Satisfaction' or 'fundamental psychological law'.

→ "LEFT W...
-ple for m...
In simple
Satisfaction

LAW OF EQUI-MARGINAL UTILITY

→ PROF. ...
consumer".

→ Law of Equi-marginal utility is the second important law of utility analysis. This law points out how a consumer get maximum satisfaction out of his given expenditure on different goods.

→ LOR... RO
applied to

DEFINITION

→ This law concerning the expenditure of a consumer was first propounded in 19th-century by a French Engineer Gossen. It is therefore also known as "second law of Gossen".

(1) ACCORD...
has a thin
distribute
it has 1

Dr. MARSHALL has called it "Law of equi-marginal utility".

(2) ACCORD...

This law states that in order to get maximum satisfaction, a consumer should spend his limited income on different commodities in such a way that the last Rupee spent on each commodity yields him equal marginal utility.

maximum
utilities
Equal!"

EXPLA

* Economists have different names to this law.

→ It sta...
income
Utility
Each

→ "LEFTWITCH" Refers to it as, "The general principle for maximisation of consumer's satisfaction".

In simple words, it is called, "Law of maximum satisfaction".

TY → PROF. HIBBON has called it, "Law of Rational consumer". It is also called "Law of substitution".

2087- → LORD ROBBINS called it "Law of Economics" as it applied to all sections of the study of economics.

DEFINITIONS BY DIFFERENT AUTHORS

14- by ① ACCORDING TO DR. MARSHALL "if a person has a thing which he put to several uses, he will distribute it among these uses in such a way that it has the same marginal utility in all."

② ACCORDING TO SAMUELSON, "A consumer gets maximum satisfaction when the ratio of marginal utilities of all commodities and their price is equal."

EXPLANATION THROUGH TABLE

200 → It states that consumer will distribute his/her income between the goods in such a way that utility derived from last rupee spent on each good is equal.

$$\begin{array}{l} \rightarrow 100/10 \mid 35/5 \\ \rightarrow 90/10 \mid 30/5 \end{array}$$

$$\begin{array}{l} \rightarrow 10 \mid \rightarrow 7 \\ \rightarrow 9 \mid \rightarrow 6 \end{array}$$

Quantity	MUX (mango)	MUY (Apple)		Quantity	MUX/PX	MUY/PY
1	100	35	✓	1	10	7
2	90	30		2	9	6
3	80	25	✓	3	8	5
4	70	20		4	7	4
5	60	15		5	6	3
6	50	10		6	5	2

CONSUME

→ It is that one actually

→ what actually

ex mr the m But m here th

* Assume you have Rs 75.

(X) mango → 10Rs per piece

(Y) Apple → 5Rs per piece

$$\frac{MUX}{PX} = \frac{MUY}{PY}$$

∴ MUX → marginal utility of mango
PX → price of mango.

MUY → marginal utility of Apple.
PY → price of Apple.

$$\begin{array}{l} \rightarrow 4 \times 10 = 40, 1 \times 5 = 5 \text{ Rs} \\ \downarrow \downarrow \downarrow \downarrow \downarrow \\ \text{(mango) (price of mango) = (40 Rs) (Apple) (price of Apple)} \end{array} \quad \therefore (40 + 5) = 45$$

$$\begin{array}{l} \rightarrow 5 \times 10 = 50, 2 \times 5 = 10 \quad (50 + 10) = 60 \\ \rightarrow 6 \times 10 = 60, 3 \times 5 = 15 \quad (60 + 15) = 75 \end{array}$$

→ concept "Jules"

And pop marshal

-tion the (Utility)

* UN/E

(जस्तैत पूरी एन के बाद बचा हुआ)
Date.....

mvv/py
7
6
5
4
3
2

CONSUMER SURPLUS → (Extra)

→ It is simply the difference between the price that one is willing to pay and the price one actually pays.

→ what consumer is willing to pay (-) what he/she actually pay.

Ex Mr. Dishaan is ready to pay Rs 15,000 for the mobile.

But Mr. Dishaan got this mobile Rs 10,000 only here the surplus amount is 5000 Rs.

↓
(Consumer surplus)

→ concept of consumer surplus was given by "Jules DUPUIT" in 1844.

And popularized by British Economist "Alfred Marshall"

, the concept depended on the assumption that degrees of consumer satisfaction (Utility) are measurable. (Cardinal analysis)

* UNDERSTAND WITH THE HELP OF TABLE

(✓) $MU = P$
(purpose)

∴ $MU < P$ (X)
(Don't consume)

no of units chal in winter	marginal utility	price	marginal Benefit (CS)
1	25	15	25-15 = 10
2	23	15	23-15 = 8
3	21	15	21-15 = 6
4	19	15	19-15 = 4
5	17	15	17-15 = 2
6	15	15	0

Willing to pay → 120 pay → 90
 actually

(ZERO) → (30)
 (SURPLUS) (120-90)

FORM

(1) wh
actu

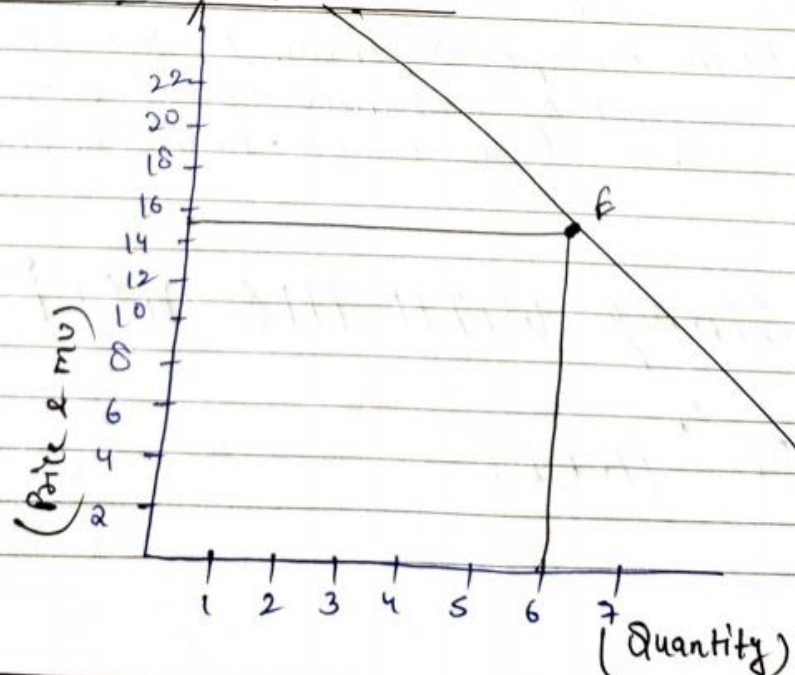
(2) To

(3)

Qu

→ At last consumption of commodity the consumer surplus is (ZERO)

* CURVE / GRAPH



→ P =

P =

=

=

TR =

→

FORMULAS OF CONSUMER SURPLUS

MAX
Surplus

① what consumer is willing to pay \ominus what he/she actually pay.

② Total utility \ominus (P x Q) \therefore (Price x Quantity)
 (units of goods)
 \downarrow
 (surplus)

③ upper limit
equation of demand curve - TR
lower limit \downarrow
Total Revenue
(TR = P x Q)

30

Ques) If demand is $P = 35 - 2x - x^2$, Demand $x=3$, what will be consumer surplus?

$\rightarrow P = 35 - 2x - x^2, x=3$

$P = 35 - 2 \times 3 - (3)^2$
 $= 35 - 6 - 9$
 $= 35 - 15 = 20$

P=20, x=3

TR = 20 x 3 = 60

TR=60

$\rightarrow \int_0^3 (35 - 2x - x^2) - 60$

$$\boxed{x^0 = 1}$$

$$\rightarrow \int_0^3 35x^{0+1} - 2x^{1+1} - x^{2+1} - 60$$

$$\int_0^3 \frac{35x^1}{1} - \frac{2x^2}{2} - \frac{x^3}{3} - 60$$

$$\int_0^3 35 \times \frac{3}{1} - \frac{2(3)^2}{2} - \frac{(3)^3}{3} - 60$$

$$= 105 - 9 - \frac{27}{1} - 60$$

$$= 105 - 78 = 27$$

$$\boxed{\text{Consumer Surplus} = 27}$$

Effect

→ Ans p

→ Ans pr

Que If demand function is $P = 50 - 2x$, demand $x = 20$, what will be consumer surplus? *

$$\rightarrow P = 50 - 2x, x = 20$$

$$* P = 50 - 2 \times 20$$

$$\boxed{P = 10}, \boxed{x = 20}$$

$$TR = 10 \times 20 = 200$$

$$\boxed{TR = 200}$$

$$\int_0^{20} 50 - 2x - 200$$

$$\int_0^{20} 50x - \frac{2x^2}{2} - 200$$

$$\int_0^{20} 50x - \frac{2x^2}{2} - 200$$

$$= 50 \times 20 - 2 \times \frac{(20)^2}{2} - 200$$

$$\begin{aligned} &= 1000 - 2 \times \frac{400}{2} - 200 \\ &= 1000 - 400 - 200 \\ &= 1000 - 600 \\ &= 400 \end{aligned}$$

$$\boxed{\text{Consumer Surplus} = 400}$$

EFFECT OF CHANGE IN PRICE ON CS

→ As price increases the consumer surplus decreases.

→ As price decreases the consumer surplus increases.

$\frac{d}{P}$ *

Price $\propto \frac{1}{\text{consumer surplus}}$