18/12/19

Business:- Business is defined as an organisation or enterprise, which engaged in Comercial, industrial and professional activities..

Structure of business firm:-

A business can select a structure, based on the size of the business and availability of the capital.

Types of structures:-

1. Sole propriator ship :- A business owned and manage, and Control by a single individual is known as sole propriator ship.

* It is a small business and capital is from single person and quick decision making is a advantage for sole propriator ship.

2 partner ship:- partnership is a form of business, in which two or more than 2 people ownes a business, based on return/ written Contact or oral agreement.

Features of partnership.

1. More Capital
2. Collective decision.
3. Sharing of risk.
4. Facility of loan allocation.

23/12/19

3. Franchaise :- It is Right to use a business model and a brand for a specific period of time.

2. As a expansion stategy of a patent Company, new Anthapreneurs Can get the reputency of branding. ex: MCd, KFC, Loreal banchan group of inst in acadamics.

4. Corporation:- A Corporation is a legal entity, that is separate and distinct in nature

2. It is a Company / group of people autorized to act as a single group under law with the partial involvment of government.

ex. GHMC, LIC, FCI (food Corporation of india).

5. Co-operative:- The A Co-operative organization is a entity which works under a society/ trust with the aim of social responsibility

ex:- APCO "Handloom clothing business".

2. Theory of firm:- A firm is a organization, which trasforms the hided inputs into outputs for sale. Two types of inputs are used by the organization. that is human resource and Capital.

* Based on these two elements, Sic scientist framed 3 theories

1. profit maximization theory.
2. Theory of sales revenue maximization.
3. Theory of maximum growth rate.

1. profit maximization theory:-

* Major objective is generatic larger amount of profit.

* In this theory, efficiency of the organization measured in terms of profit generation capacity.

2. Theory of sales revenue maximization:-

* In this theory, sales percentage determine the market leadership.

* Salary and other benefits of employees, linked with sales percentage, rather than profit.

. Theory of maximum growth rate:-

In this theory owners aims at, market share and expansion of the business in several areas.

Types of Business entities:-

Their are 4-types of business entities

1. Service oriented business.
2. Merchandising business.
3. Manufacturing industries.
4. Hybrid business.

1. Service oriented business:- It is a commercial enterprise, that provides, work performed in an expert manner, by individual or team for the benefit of the customers.

* The types of services include consulting, education, insuran[ce] transportation etc..

2. Merchandising business:- Merchandising is one of the most common type of business, we interact with daily. It is a business, that purchases, finished products, and resells them to the consumers and they make profit by selling the product at higher prices then, their purchase cost.

3. Manufacturing industries:- A place where, primary goods are converted into finished products using machines, are called manufactur[ing] industries. Ex. Cloth industries, Automobile, food industries etc... (A) Le

Hybrid business:- These are the Companies that may classified in more than one type of business, that is Consulting, manufacturing, distributing etc.

24/12/19

Limited liability Companies. → public Ltd → private Ltd

1. It is the business structure, where the owners are liable only to the amount, they have invested

2. There are two type of limitted Companies held in india.
   1. public Ltd Company   2. private Ltd company.

Public Ltd Company:- In public limitted Company large no.of individuals Contribute the capital in different forms.

* Elements of public Ltd Company:-

1. No.of people to be involved, is above 50.
2. They can subscribes the shares to the public.   Share = Working capital / tot no. of pp
3 Their is no restriction on transfer of shares.
4. The Statement of inlee of ~~prop~~ prosperity is ~~typical~~ / liberal in public limitted organizations.

Private Ltd organizations:-
In this Company, less no. of individuals provides equivity and minimum capital is one lakh.

* Elements of private limitted:-

1. No.of People are below 50.
2. They can't ~~subs~~ offers shares to the public.
3. Their is restriction on transfer of share.
4. Inlee of prosperity Stmt is tough to deal.

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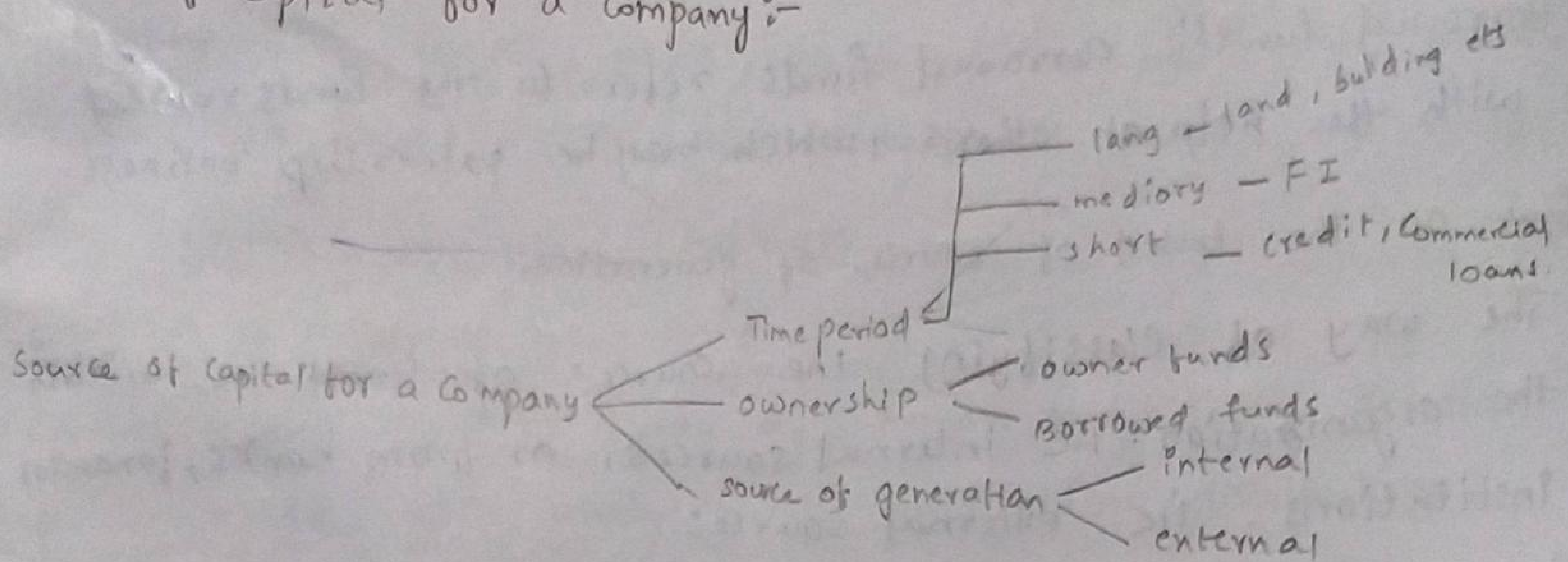
25/12/19

Source of Capital for a Company:-



Business simply cannot function, without money and making of money is known as business funds, and their are classified based on, time, ownership, and sources of generation.

ON the based of time Period:-

i) long term:- long term sources, fulfill the fanancial requirements of a business for a period of more than 5 yrs. It includes investing on lands, building etc...

ii) mediam term:- These are the sources, where the funds are required for a period of more than 1yr, but less than 5yrs. It includes loans from Financial institutions and Commercial banks.

iii) Short term:- Funds which are required, for a period not exceeding 1yr. can be called as short term sources. It includes gold loans, Credit card services and loans from Commercial papers etc.

ON the based of Ownership:-

The sources can be classified into Owners fund and Borrowed funds.

i) Owners funds:- owners funds means, which is procute by a owner of a business, which may be soul propriterships.

Borrowed funds:- Borrowed funds refers to the funds raised with the help of others, which may be patnership business

~~Bas~~ on the based of source of generation:-

The way of classifying the sources of funds are, within the organisation. i.e internal sources, or from banks, fanancial institutions. i.e enternal sources.

i) Internal sources:- Funds those are generated inside the business can be called as internal source of finance.
for en:- profit of another branch, wing, business unit etc..

ii) Enternal sources:- Their are sources. from outside of the organization such as, borrowing money from suppilers, and investors and banks and fanancial institutions, etc.

30/12/19

Non-Conventional sources of finance:-

Sources which are different from traditional sources are considered as non-conventional sources. This may include

1. Title loans
2. Get an advance:

1. Title loans:- If you paid of your products like car, gold, land to get the money against its value can be called as title loans.

2. Get an advance:- Many credit cards offer cash withdraw so we can take the advantage of credit limit to raise the investment for the business but customer unable to pay the amount in time they might bear hefty price in the form of interest.

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vi) Family and friends, peers, patners, neighbours, all private banks also comes under non conventional sources to raise the finance for the business.

Defination of Economics:-

Economics is a ~~sty~~. study of human and social relationship concerned with analysis of production, distribution, consumption of goods as well as services.

Significance of economics:-

1. Econmics is the science that deals with production exchange. Consuption of various products.
2. It shows how to handle with available resources to increase wealth (income) and human welfare.
3. It also focus on scarcity of resources and choices among their alternative user
4. The word economics was derived from two greeks words ~~(Oikos)~~ Oikos (A house) & memein (to manage) which would mean managing a house hold using limited funds available in the most statisfactory manner.

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31/12/19 Micro & Macro Economic Concepts :-

micro economics :- Micro economics is a study of individual unit of economic system.

2. In other words, a small part of economy but not the whole the economy
3. micro economics explains the, work culture of individuals, house holds, small organigation and also prices and wages and budget of small entities.

Macro economics :- Macro economics is the study of large part of economy, that is whole economy.

2. Macro economics deals, not only with the individuals and their incomes but also with the national income and national transctions and national output.

Concepts and importance of national income :-
The total market value of all goods and services produced by a country with the combination of gdp and NDP and GNP and NNP and also personal income of each and every employee can be called as national income.

Concepts of national income :-
1. GDP :- It is the money value, all final goods, and services produced with in the geographical boundaries of a country in a given period of time. GDP

GDP = Consumer spending + business inveystment + goverment spending + any other income to the nation

Gross domatic product.

NDP:- National/net domestic product

NDP = GDP - depreciation (reduction in value).

1. NDP is the concept of national income.
2. NDP is the measure of gross domestic product and difference in the value of depreciation with the cores of production.

GNP:- GNP is the sum of GDP and net factor income from abroad. (Gross national product)

GNP = GDP + NFIA

NNP:- Net National product.

NNP is the difference b/w GNP and depreciation on foreign products and products of indians whose settle in abroad.

NNP = GNP - depreciation

Personal income:-
Total income received by the individuals of a nation from the all the sources of income.

→ It includes wages, salaries and rents and interest receive by the individuals.

4/1/2020

Inflation:-

Inflation is a measure, at which, the average price levels, of a goods and services in an economy, increasing or decreasing over a period of time.

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Causes of inflation:-

1. Demand-pull inflation:- when demand for goods and services is greater than supply. It can be called as demand pull infliation.

2. In this inflation, price of the products will be increased, based on demand of a product.

3. It arises, due to, various factors, like heavy income, quality of the brand, need of the product etc...

2. Cost-push inflation:-

1. This inflation caused by, increase in price of inputs like labour, raw material, transportation etc...

2. The increased price of factor of production, may leads to raise in overall price of the product.

Built-in inflation:-

1. Built-in inflation is a type of inflation, that results from pass experience and persists in the present. (with pass experience, imagining something about future)

Money supply in inflation:-

1. In normal economic circumstance / situations, if money supply grows faster, then the need, it will causes inflation.

2. Supplying the money is the sole responsibility of RBI, and RBI prints the currency and supplyies it to the economy.

3. Supply of money decides, the rate of inflation in the economy, and RBI will take the decision, regarding fund release to the state or country, based on economical factors of that area.

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7/1/2020

Business cycle:-

1. It shows the periodic continous up and down moments in economic activities.

2. Business cycle includes four stages i.e,

→ expansion
→ peak
→ Recession
→ Tough

with additional stages of instroduction and recovery.

expansion:- In expansion phase there is an increase in various economic factors. such as production, employment, outputs, wages, profits, demand and also supply of the products to expand the business in several accepts.

Peak:- In peak, phase the economic factors such as production and profit and sales are higher and business will lead the market in specified sector and it acheives maximum profits in their business.

Recession:-
In recession phase all business factors such as production prices, savings and also investment starts decreasing. If producers are not aware of decreasing in the demand and they continue to produce goods and services they may leads to losses.

Tough:- In this stage the growth rate of business becomes negative. It is difficult to handle the debts

as a result banks and financial institution donot prefer to sanction money and finally demands for the products will be collapsed.

Introduction:-

This is the first stage in the product life cycle where a company tries to built awareness about the product or service.

Recovery:-

In Recovery stage entriprenurs will try to get back to the market position and bankers start sanctioning the loan and management start highering the people and also investing but in limited quantity.

18/1/2020:-

Features of business cycle:-

1. Occurs periodically:- As we discuss, this phase occurs, time to time with different situations however, they donot occur in specific times. The time periods of different phases, in business cycle will vary according to the industries and economic conditions.

2. They are syanchronic:- Another feature of business cycle is synchronic, that means, business cycles are not limitted to one organization or one industry, they effects on entire economy and pervasive (spread) in nature.

3. Complex phenomenon:-

Business cycles are very dynamic [adaptive] in nature, and they donot have any uniformity, so, it is impossible to predict or prepare, for the business cycle.

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4. International in character :-

Business cycles donot & limit, them selves to one Country or one economy, once they started in one Country, they will spread to other countries of economy through, trade transactions. (import & enport b/w two or more countries).

20/1/2020

Nature & scope of Business Economics :-

Nature of business economics:-

Business economics is the integration (Combination) of economic theories, with business practises.

Nature of business economics:-

1. Micro and macro in nature :-

Business economics is micro economics in nature, because it deals with, a particular person, business, family, etc...

→ Business economics is also nearer to, macro economics, because it deals with national income, budget, business cycle etc...

2. Use of economic theories:-

Business economics uses, all economic theories, relating to Profits, and income etc..., in the process of decision making.

3. Realistic one :-

It is a realistic science, it studies, all situations concerning with business organizations, as well as society by considering real Conditions in the market.

4. Normative statements:-

Economical decisions are ~~~~ normative in nature, it studies aim and objectives of the economy, and determines, the standard methods for achieving the objectives.

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Scope of Economics:-

1. **Demand forecasting:-**

   Demand forecasting is a very important accept in business economics, B.E analysers, the demand for a product and forecast the quantity demanded by the customers, so that enthepreneurs can take right decision on quantity of production.

2. **Cost Analysis:-**

   B.E deals with, analysis of cost for a product, it decides, suitable cost, for a product based on quality, quantity, reputancy of the organization. So that, anthepreneurs can escape, from the losses,

3. **profit analysis:-**

   Every business organization aims to secure, maximum profits. and at the same time it faces, uncertainity and risk in getting profits. so BE deals with stategies to get profits and profit analysis and policies.

4. **Capital management:-**

   Capital management, a another wing in B.E, it denotes, planning of investment and expenditure in the organization.

Role of business economist:- 'Kautily', Dada bai Naoroji

Economist plays an important role in, all the industries like manufacturing, mining, IT, insurance etc.

2. Business economist is the (editing) practioner, of managerial activities

Companies employee, business economist, to guide them in making appropriate economic decisions.

Role :-

- To bring reasonble profits to the company.
- To study external and internal factors influencing the business.
- To make, accurate forecast.
- To maintain contact with government and also other indivitual organization.
- To pacticipate in public debates about the economy
- To monitor business performance.

8. Multidisciplinary nature of economics :-

Business economics is the multidisciplinary in nature means, it linked with different subjects.

2. Tools like Algebra, logorithms, derived from mathematics and forecasting is the concept of statistic.

Production planning is the concept of operational reasearch and technical concepts are from computer science and analysation of management is adapted from sycology as well as organizational behaviour

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22/1/2020

Unit - II

Demand And Supply Analysis

Elasticity of demand:-

Defination of elasticity:-

In economics, elasticity is the measurement of the proportional change of an economic element, i.e, product, service, or consulting etc...

Defination of demand:-

Demand is defined as, the consumers desire and willingness to pay the price for particular product or service., in particular time.

Elasticity of demand:-

The rate of responsive ness, in the demand of a commodity (product or service) for a given change in price or any other determinents of demand.

Types of Elasticity:-

There are four types in elasticity of demand.

1. Price elasticity of demand:-

Price elasticity of demand is an economic measure, it generally, refers to quantity demanded, of a commodity changes in response to change in the price.

$$Edp = \frac{Q_2 - Q_1 / Q_1}{P_2 - P_1 / P_1}$$

2. Income elasticity of demand:-

Income elasticity of demand referes to, the quantity demanded of a product or service in response to a given change in income levels of the costumers.

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$$Edi = \frac{Q_2 - Q_1 / Q_1}{I_2 - I_1 / I_1}$$

3. Cross elasticity of demand:-

Cross elasticity of demand refers to, the quantity demanded of a commodity, in response to a change in the price of a related product. or service.

$$Edc = \frac{Q_2 - Q_1 / Q_1}{C_2 - C_1 / C_1}$$

4. Advertisment elasticity of demand:-

It refers to increasing in the sales, revenue, because of change in the, advertising concept. This is direct relationship b/w, amount of money spend on advertisement and its impact on sales.

$$Ed_A = \frac{Q_2 - Q_1 / Q_1}{A_2 - A_1 / A_1}$$

where, Q_1 = Quantity before change,

Q_2 = Quantity after change.

$P_1 / I_1 / C_1 / A_1$ = profit before change.

$P_2 / I_2 / C_2 / A_2$ = profit after change.

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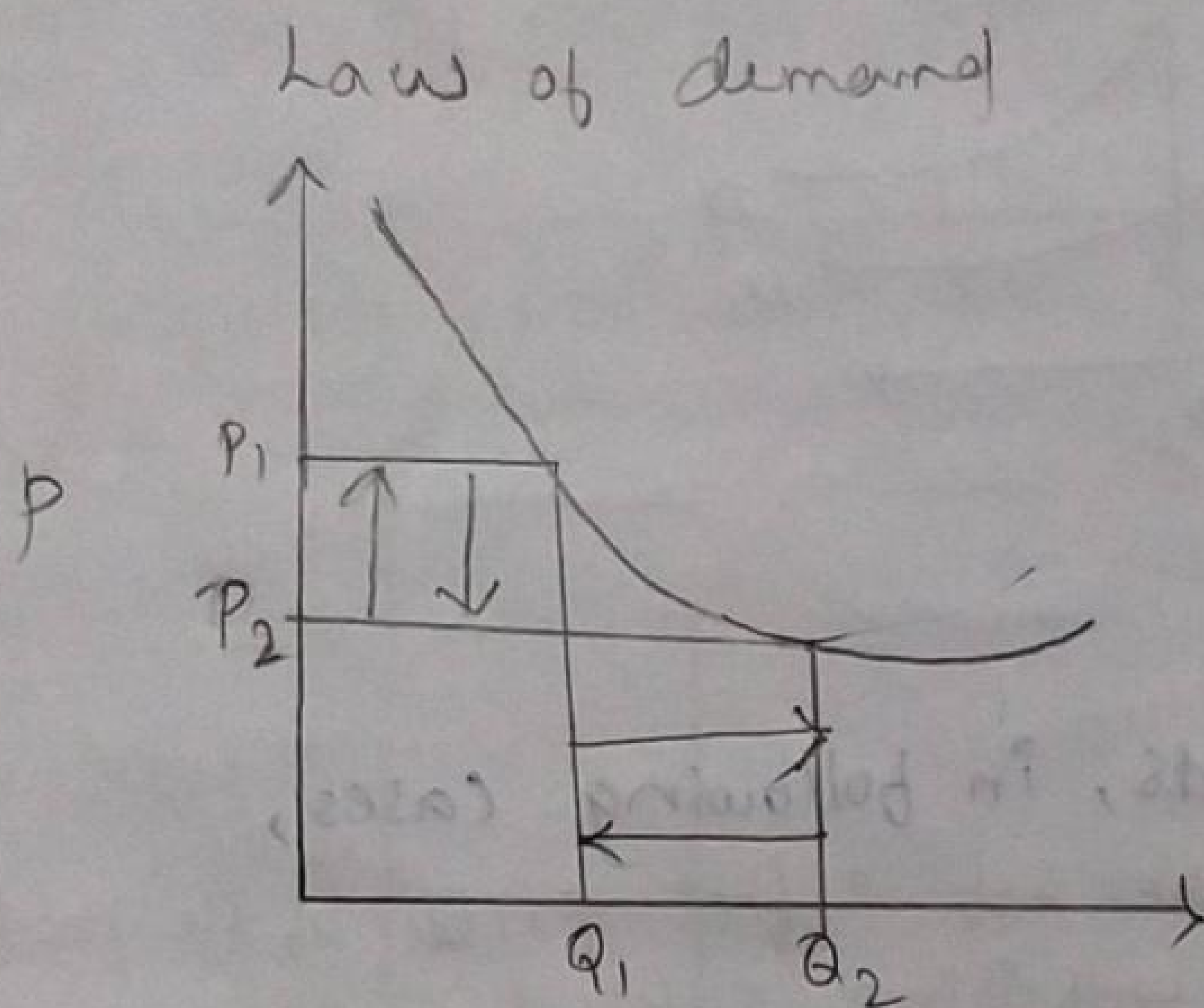
27/1/2020

Law of demand

~~It~~ Law of demand ~~staly~~ States that, when other things like quality, quantity, environmental Conditions, etc remains the same and amount of quantity demanded raises with every fall in the price and vice versa.

→ The law of demand states the relationship b/w price and demand

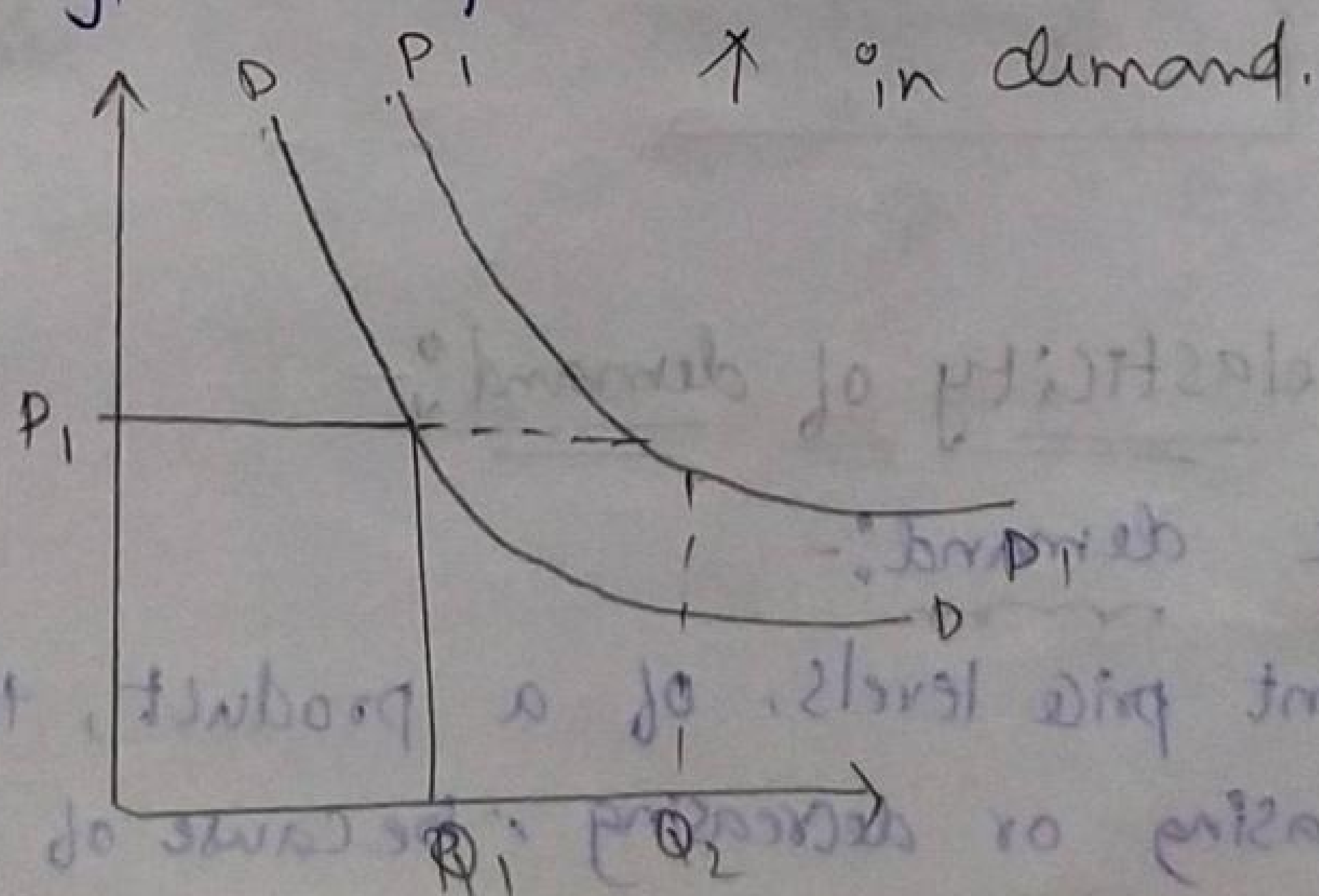


P_1 -
P_2 -
Q_1 -
Q_2 -

Increase in demand:-

1. If the Consumers are willing to buy, more products of a particul[ar] brand at the same price, the result will be increase in demand

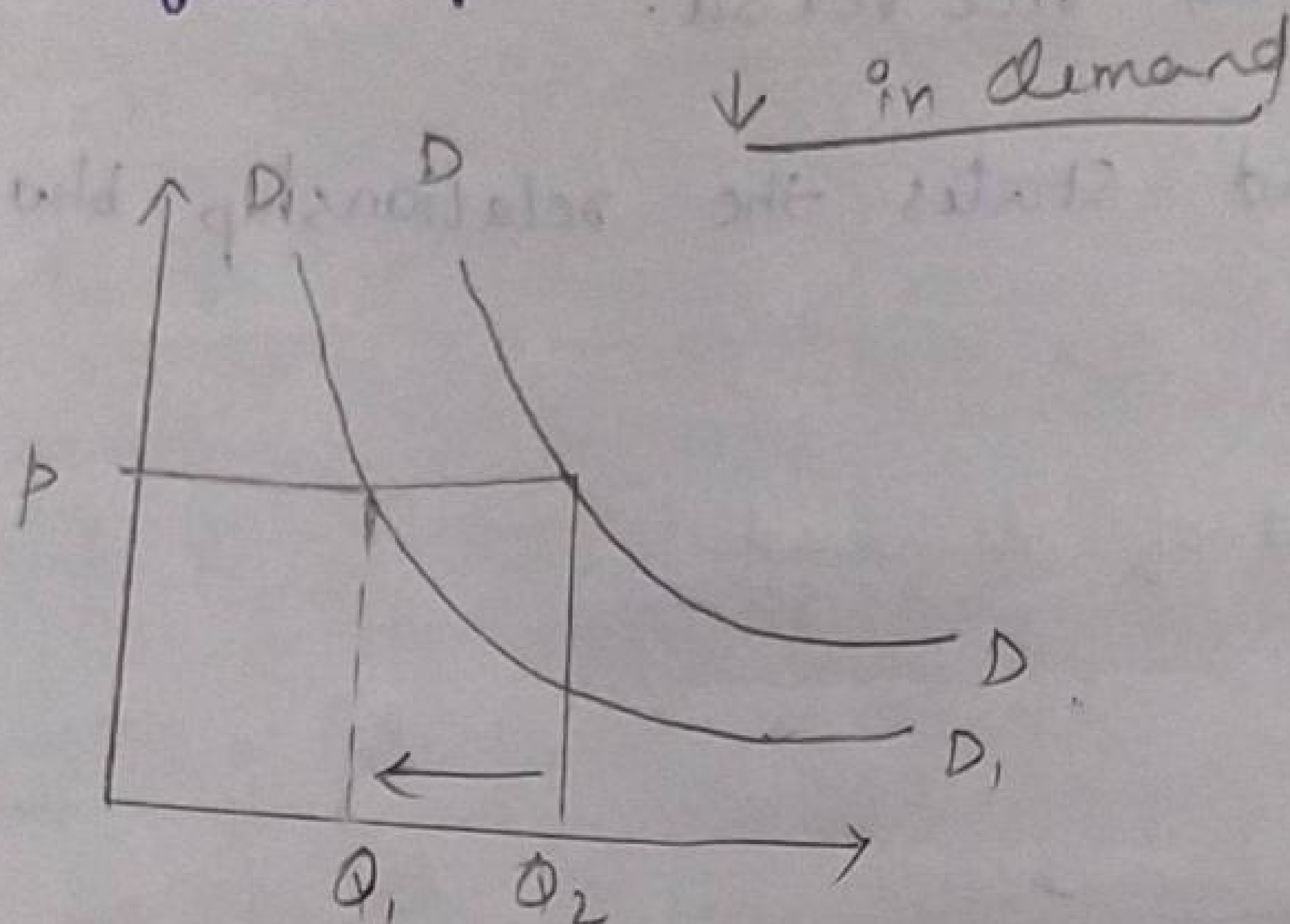
2. Increment is from, less quantity to, more quantity of products, it shows that (buyer) buyer is Statisfied and ready to purchase more quantity for ~~saving~~/ same price



Decrease in demand:-

Decrease in demand occurs, when buiers are purchase less no. of Product at the same price level, because of different factors like environment, health Consciousness etc; which does not comes under business factors.

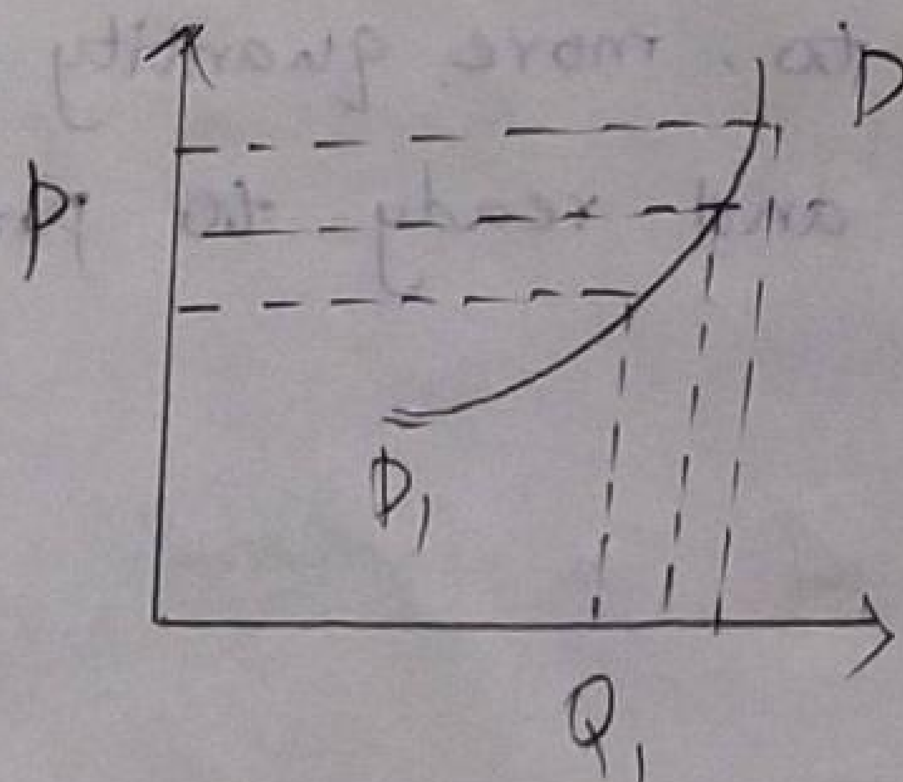
↓ in demand



Exception to demand:-

Law does not, hold the goods, in following cases,

1. Gibben goods. D of GG ↑ with ↑ in P, falls when price falls (It does not effect price of the product)
2. The products belongs to ~~berma~~ pharmacutical
3. In the case of distinguish products or unique product like Iphone,

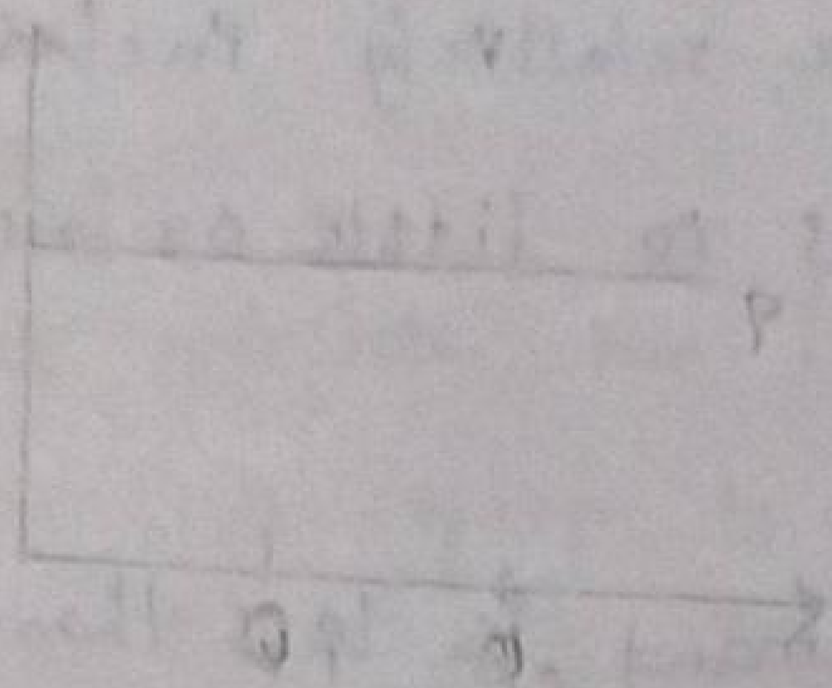


Measurment of elasticity of demand:-

1. Perfectly elastic demand:-

with the constant price levels, of a product, the demand is keep on increasing or decreasing, because of several factors

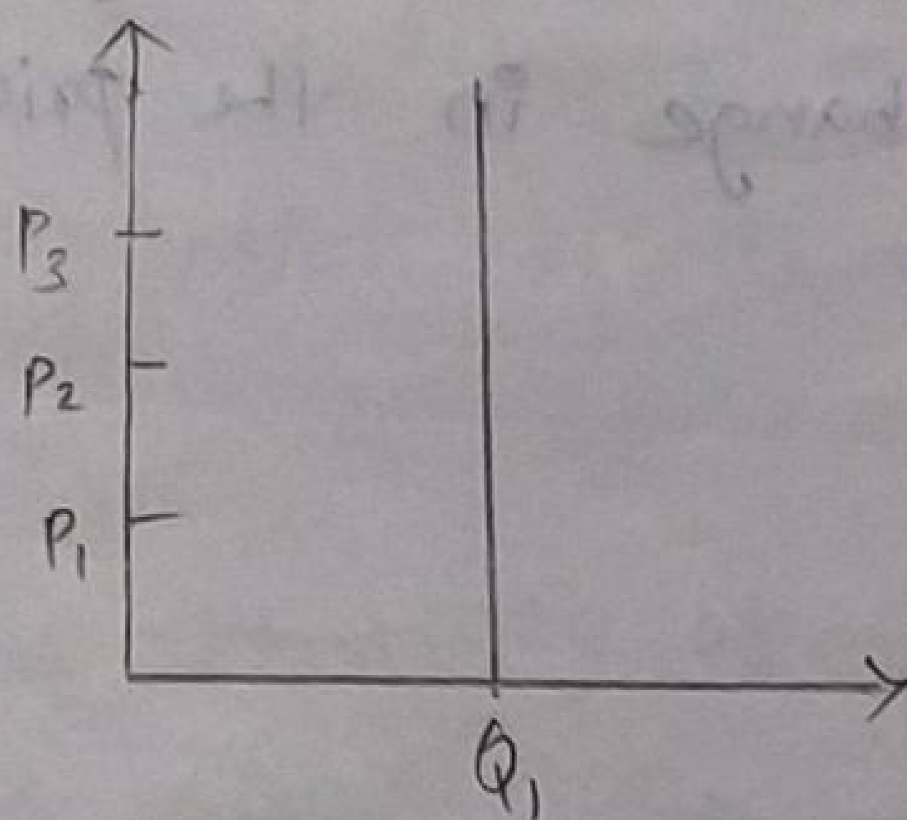
like busines, conditions, season, quality, Competition etc.



2. perfectly inelastic demand:-

when, a significant change in price, leads to no change in the demand of a product then it is said to be perfectly inelastic demand.

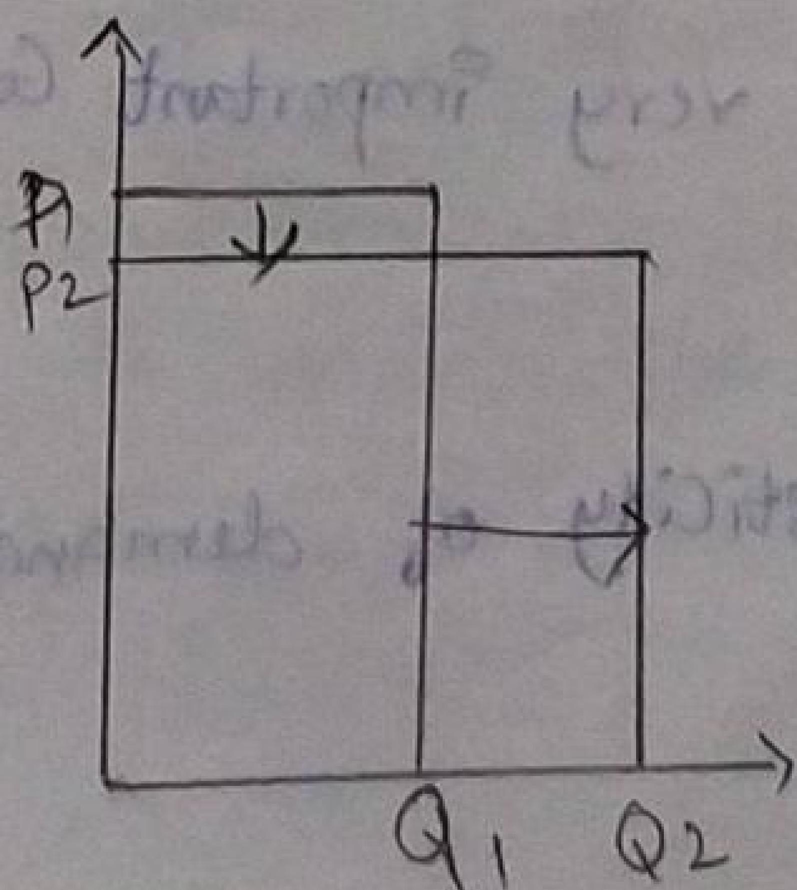
* This is perfectly applicable for non-durable products, branded products.



3. Relatively elastic demand:-

The demand is set to be, relatively elastic, when small change to/ in the price leads to big change in the demand of a product.

* In this case change in the demand is more than change in the price.



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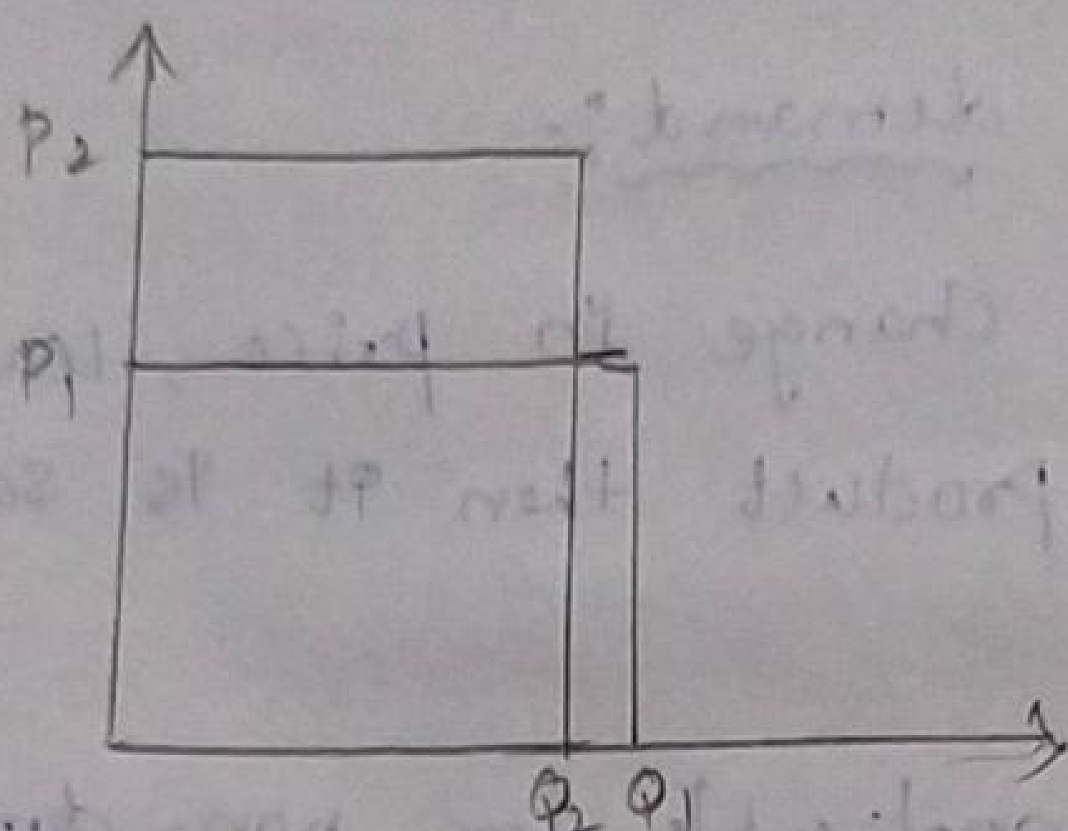
4. Relatively inelastic demand:-

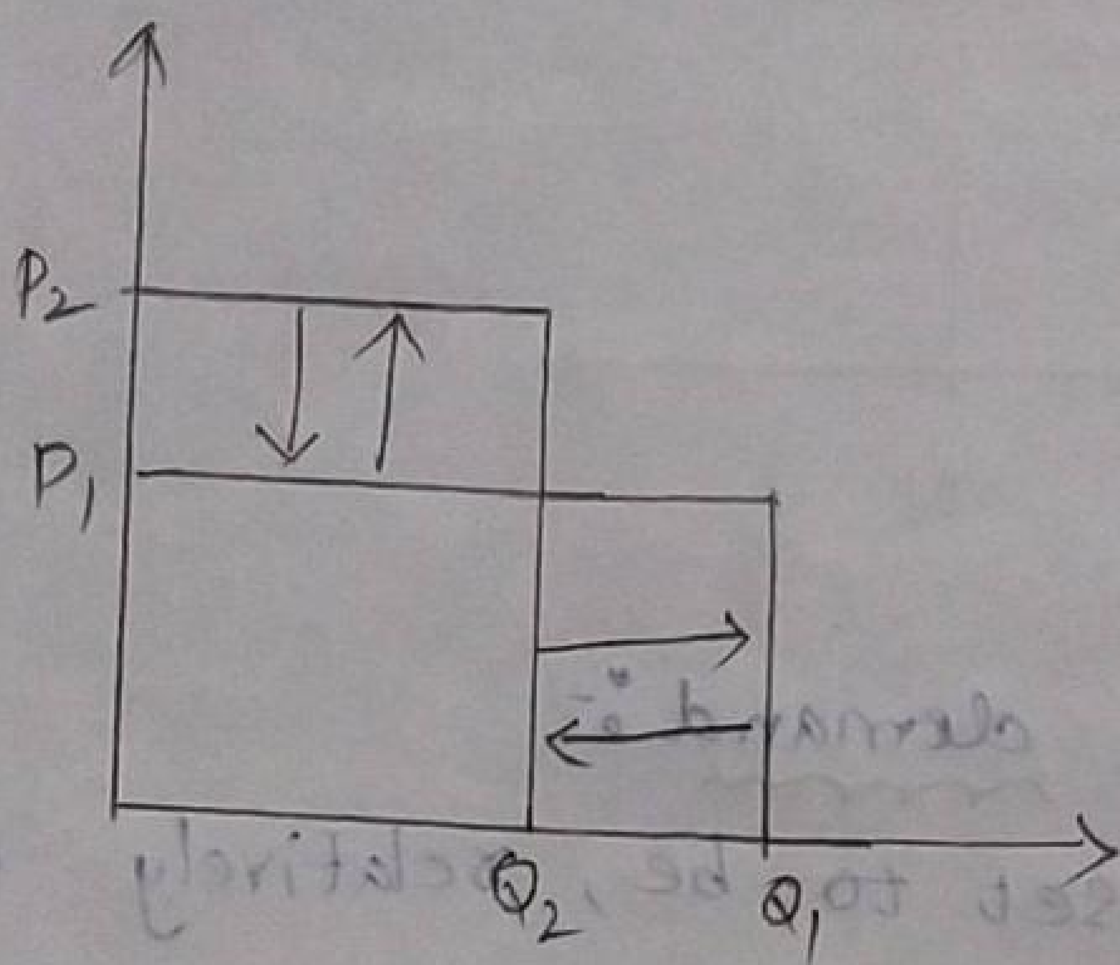
→ The demand is said to be relatively inelastic, when the considerable price changes leads to little or no change in the quantity demanded.

→ In this case, change in demand is less than change in the price.



5. Unity elasticity:-

The elasticity in demand is said to be unity, when the change in the demand is equals to change in the price.



28/1/2020

✓ Significance of elasticity of demand and elasticity of demand in decision making

1. Elasticity of demand is a very important concepts in entire business transctions.

2. The major role of elasticity of demand is decision making.

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3. we have, five important activities in business, which Can be analysed through the concept of elasticity of demand.

1. Production Quantity:-
It is useful to decide, the no. of products, to be produced in a single financial year, based on demand fluctuation.

2. price fixation:-
To decide the, different levels of prices for a product, demand analysation plays a vital role.
→ Improper decision in the categorie of price fixation, may leads the organisation to loses.

3. product distribution:-
1. Expansion of the branchases, is the symbol of growth of a business. 2. In the stage of growth, right decision regarding the expansion effects a lot, in the profits of the busines.

3. The Concepts of elasticity of demand are very helpful, in the product distribution.

4. Expansion of business:-
1. Elasticity of demand is useful, to plan the expansion
2. In the categorie of expansion analysation on social, political and economical Conditions are very important. so this Concept Provides, valuable inputs, to expand the business in different sectors.

5. policy of the organization:-
1. It is very useful to frame the, policy of the organization in the accept of government, political, legal issues.

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29/1/2020

Factors Affecting elasticity of demand:-

A change in price doesnot, always lead to the same-proprotianate change in demand. so, elasticity of demand is different for different goods, Various factors which effects the elasticity of demand of a Commodity are,

1) **Nature of the product:-** ~~elast~~

Elasticity of demand of a product is influenced by its nature. when a Commodity is a necessity like, food grains, vegetables, medicines etc... Its demand is generally not elastic in nature. If the product is luxury for a person, then it is elastic in nature.

2) **Availabality of substitutes:-**

Demand for a Commodity, with large no. of substitutes will be more elastic, because even a small rise in its price will induced the buyer, to go for other substitutes.

3) **Income level:-**

Elasticity for any Commodity is generally less for higher income level goods, because, ~~the~~ rich people are not influenced much by changes in the price of goods, but poor people are highly ~~ef~~ affected, so it depends upon on economical Conditions of a Country.

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4. Level of price:-

Level of price also abbects, price of elasticity of demand. Costly products like laptops, tv, major electronic goods may have high elasticity, because changes in their prices may leads to the loses. However, demand for in-enpensive goods like Newspaper, match box, needles, all small scale industry products are inelastic in nature. So, change in price of such goods do not change their demand.

5. Habits:-

Commodities, which have become, habitual necessities, for the consumers, have less elastic in demand. It happens because, such commodity, becomes a necessity for the customers, and they continues to purchase, even its price rises/raises.

1/2/2020

Demand forecasting:-

1. Demand forecasting is the process, in which, historical sales data is used to develop and estimate, of an enpected forecast of customer demand.

2. Demand forecasting means predecting or estimating future demand for a brand or product.

Steps in demand forecasting:-

1. Determining the objectivies.

The first step in this regard is to consider the objectives of forecasting process, i.e forecasting on sales, demand, profit etc.

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2. Period of forecast.

Before taking up forecasting, the Company has to decide the time period of forecasting wheather it is short term or long term ~~se~~ research.

3. Scope of forecasting:-

The next is to decide, the scope of forecasting wheather it is for a single product or for a particular area or to the total industry or at the national/international level.

4. Sub-dividing the task.

Dividing the task into homogenous groups according to the Product, area, activities or Customers.

5. Identify the variables:-

The different variables or factors affecting the sales should be identified. So that importance may be given to those different factors.

6. Selecting the method.

Appropriate method of sales forecasting should be selected by the Company according to the available information.

7. Collection and analysis of data.

Necassary data for the forecast are Collected, tabulated, analysed and Cross check. Now the data is interpreted by applying the statistical tools and graphical techniques.

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8. Study the sales fore cast and sales promotional plans.

1. Making the fore cast realible and the sales promotional plans such as advertising, Personal selling, and other programs should be developed.

9. Compitators activity.

Volume of sales of a Company, largely affected by the activities of the Compitators. therefore the forecast must study the compitators activities, policys and programs.

10. preparing Final sales fore cast.

By Reviewing all the above stages management will decide the percentage of final sales fore cast.

11. Evaluation and adjustments.

1. The percentage of final sales fore cast is based on the operations of the organisation in the next period.

2. The actual sales performances in the coming period should be reviewed and evaluated according to montly, quarterly, and halfyearly

3. This is the stage of cross verification of actual data with the planed version.

✓ ⇒ Methods of demand fore casting :-

1. survey method.

2. New Method.

3. Statistical Method.

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1. Survey Method.
- → Survey of buyer intensions (involves customers)
  - CENSUS Method
  - SAMPLE Method (group of people)
- → sales force opinion. (don't involve customers) (sales enhicitives)

2. New Methods
- Enpert opinion
- Test Marketing
- Controlled enperiments
- Judgemental enperiments.

3. Statistical Method:
- Barametric Technique
- Correlation & Regression Method
- Trend Protection method.
  - → Trend line by observation
  - → Time services Analysis.
  - → Least
  - → Moving average
  - → Enpanencial Smoothing

Methods of Demand forecasting:-

1. Survey Method: In this method we have two Concepts
   i) Survey of buyer intensions
   ii) Sales force opinion.

Survey buyer intensions:- In this method we will select the list of buyers and approach each buyer to ask how much does

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they plan to buy the products. Their are two different methods.

a. CENSUS Method:- In this method data is collected from all the Customers and then added up to the arrive has the total encepted demand, of the products. This method is time Consuming as well as Costly.

b. Sample Method:- In this method only a few Customers are selected and their views on the ~~prop~~ probable demand is Collected. This method is simple and Cheaper but may not be accurate all the time.

Sales force opinion:-

1. In this method, sales executivies are expected to estimate the sales in their specific areas.

2. The sales force which has been selling the products to whole salers, retailers, Consumers over a period of time so their is Consider that to know the product demand and pattern approching the sales executivies is the easiest way.

2. New Methods:-

i. Expert opinion:- This technique of fore casting in demand seeks the view of experts regarding the level of demand as they have good experience in the demand analysis.

ii. Test Marketing:- Test marketing is the most realiable method of ~~sale~~ sales forecasting where the product is launched in few selected cities or towns the product.

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Controlled experiments:-

In this method product is introduced with different Packages and different prices to understand the demand level.

Judgemental experiments:-

In this method ~~ower~~ Owner judgement and analysis done by the management with the help of historical data of the organization.

Statistical methods:-

1. Barometric Technique :-

under B.T One set of data is used to predict the demand of the product.

2. Correlations and Regression :-

This method describes the degree of association b/w two variables i.e, Sales and ~~advers~~ advertisements, sales and offers. sales and Brand ambasidor, sales and proportional activities etc. when two variables tend to change together to ~~analy~~ anagl analysis level of demand then they are correlated and regreted each other.

Trend projection Method:-

Trend line by observation:-

Straight or curved line in a series data trend chart that indicates general pattern of time series data, information about Previous years. It may be drawn visually by connecting the actual data points in graphical representation.

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2. Time Series Analysis:-

one major ~~reg~~ requirement to follow this techniques is that the product should have activity been trend in the market for quite some time in the past based on that elements. sales will be predicted.

Least square method:- Certain Statistical ~~form~~ formulas are used here to find the trend line which is best suitable to the organisation.

Linear trend equation for the sales is

$$S = x + Y(T)$$

where S = sales

T = year no. for which is in for casting.

N = no. of years.

$$\Sigma S = Nx + Y\Sigma T$$
$$\Sigma ST = x\Sigma T + Y\Sigma T^2$$

Eg:-

Year	1992	1994	1996	1998	2000
sales	75	84	92	98	88

estimate the salec for 2002 & 2004?

Year	sal	no. of T	ST	T^2
1992	78	1	75	1
1994	84	3	275	9
1996	92	5	460	25
1998	98	7	686	49
2000	88	9	792	81
	$\Sigma S = 437$	$\Sigma T = 25$	$\Sigma ST = 2265$	$ST^2 = 165$

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$$S = x + y(T)$$

$$\Sigma S = Nx + y\Sigma T$$
$$\Sigma ST = x\Sigma T + y\Sigma T^2$$

$431 = 5x + 25y \quad \text{--- (1)}$

$2265 = 25x + 165y \quad \rightarrow (2)$

Solve Eq (1) & (2)

$x = 77.4$ $y = 2$

$S_{2002} = 77.4 + 2(11) = 99.4$

$S_{2004} = 77.4 + 2(13) = 103.4$

2.

Year	1990	1991	1992	1993	1994
Sales	21	52	38	81	70

Estimate the sales for the year of 1996 and 1997 and

Year	sales	No. of year T	S.T	T^2
1990	21	1	21	1
1991	52	2	104	4
1992	38	3	114	9
1993	81	4	324	16
1994	70	5	350	25
	$\Sigma S = 262$	$\Sigma T = 15$	$\Sigma ST = 913$	$\Sigma T^2 = 55$

$262 = 5x + 15y$

$913 = 15x + 55y$

$913 = 15x + 55y \div 3$

$304.33 = 5x + 18.33y$

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$5x + 15.33y = 304.33$

$5x + 15y = 262$

$3.33y = 42.33$

$y = 12.711$

$262 = 5x + 15(12.711)$

$262 = 5x + 190.66$

$5x = 71.34$

$x = 14.26$

$S_{1996} = 14.26 + 12.71(7) = 103.23$

$S_{1997} = 14.26 + 12.71(8) = 115.94$

$S_{1998} = 14.26 + 12.71(9) = 128.65$

Exponential Smoothing:-

$S_{t+1} = CS_t + (1-C) S_{mt}$

S_{t+1} = the forecasting values of the sales.

S_t = actual data in the most recent of previous year.

S_{mt} = Most recent smoothed forecast

C = smoothing Constant.

$C = 0.1$

(1)

Time period	Actual sales
1	5.0
2	5.6
3	6.7
4	5.8
5	6.9
6	5.1
7	8.1

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Estimate the 6 & 7 month ?

$$S_5 = \frac{S_1+S_2+S_3+S_4}{4} = \frac{5.0+5.6+6.9+5.8}{4}$$

$$= 5.775$$

$S(t+1)$ $S_{(t+1)} = CS_t + (1-c)S_{mt}$

S_6 $S_{(5+1)} = 0.1(6.9) + (1-0.1)\,5.775$

$$\boxed{S_6 = 5.8875}$$

$S_7 = CS_6 + (1-c)S_{mt}$

$0.1(5.1) + (1-0.1)\,5.8875$

$$\boxed{S_7 = 5.808}$$

(2)

Time period	Actual sales.
1	180
2	185
3	178
4	185
5	197
6	188
7	198
8	198

Calculate the sales in 7 and 8 month of next year?

Sol

$$S_6 = \frac{S_1+S_2+S_3+S_4+S_5}{5}$$

$$= \frac{180+185+178+197+185}{5}$$

$$= \frac{925}{5} = 185$$

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$S(t+1) = (S_t + (1-c) smt$

$S(6+1) = (0.1)(S_6) + (1-0.1)(185)$

$S_7 = 0.1 \times 188 + 166.5$

$$\boxed{S_7 = 185.3}$$

$S(7+1) = (S_7 + (1-c) smt \Rightarrow S_8 = (0.1)(108) + (1-0.1)(170.8)$

$S_8 = 19.8 + 153.72$

$$\boxed{S_8 = 173.52}$$

3. Estimate the Sales in 7 and 8 month of next year.

Time period	Actual sales
1	39
2	44
3	40
4	45
5	38
6	43
7	39

Estimate the sales for 5 and 6 months?

Sol

$S_4 = \frac{S_1 + S_2 + S_3}{3} = \frac{39 + 44 + 40}{3} = 41$

$S(t+1) = (S_t + (1-c) smt)$

$S(4+1) = (0.1)(S_4) + (1-0.1) 41$

$S_5 = (0.1)(45) + (0.9) 41$

$S_5 = 41.4$

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$S_{(5+1)} = 0.1 \times 38 + 0.9 \times 41.4$

$S_6 = 41.06$

$S_{(6+1)} = 0.1 \times 4.3 + 0.9 \times 41.06$

$S_7 = 41.254$

Moving average method:

In this method consider that the avg of past events determine the ~~func~~ future sales. This method is very flenible and accurate to calculate the single day sales.

Day	sales
1	40
2	44
3	48
4	45
5	53

estimate the sales for 4th & 5th days of nent month?

Sol:-

$$S_4 = \frac{40+44+48}{3} = 44$$

$$S_5 = \frac{44+48+45}{3} = 45.7$$

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4/2/2020

Supply Analysis:-

A quantity of goods or Survices a producer would be willing to produce and offer to the market for sale under a given set of Conditions. During a period of time.

Determinets of Supply:-

Price of the goods or services:-

The most obeous one of the determinets of supply is the price of product or service, with all other parameters, being equal the supply of the product increase, if its relative price is higher. The reason is a organization provides goods or services to earn profits if the price raises, the profit raises too.

Price of a related goods:-

Lets say that, the price of wheat raises, hence it becomes more profitable for the organization to supply, when the supply of wheat will raise, the related goods of wheat i.e, corn and soya will experience a fall, so we can say that, if the price of related goods raises, the organization increases the supply of the goods having higher price. this leads to drop in the supply of goods having lower price.

Other factors:-

Their are many other factors, affecting the supply of goods or services like government policies, raw material cost, compitators market conditions etc.

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Supply function & law of supply :-

Mathematically, the supply function explains the relationship b/w, the quantity supply for a comodity and its determinets

It can be summarized as,

$$S_x = f(P_x, P_f, P_1, \ldots P_n, O.T., S, U)$$

S_x = Quantity supplied of a product

P_x = price of product 'x'

P_f = price of factors of .

$P_1 \ldots P_n$ = price of related goods.

O = Economical Conditions

T = Technology.

S = subsidey

U = all other determinents.

Law of supply :- 1. The supply of a commodity expands (raises) with raise in prices and falls with every fall in its prices

! This law suggests that, the supply varies directly, with change in its price.

Law of supply :-

Price	Quantity
11	10
12	13
13	20
14	25

Suppliers.

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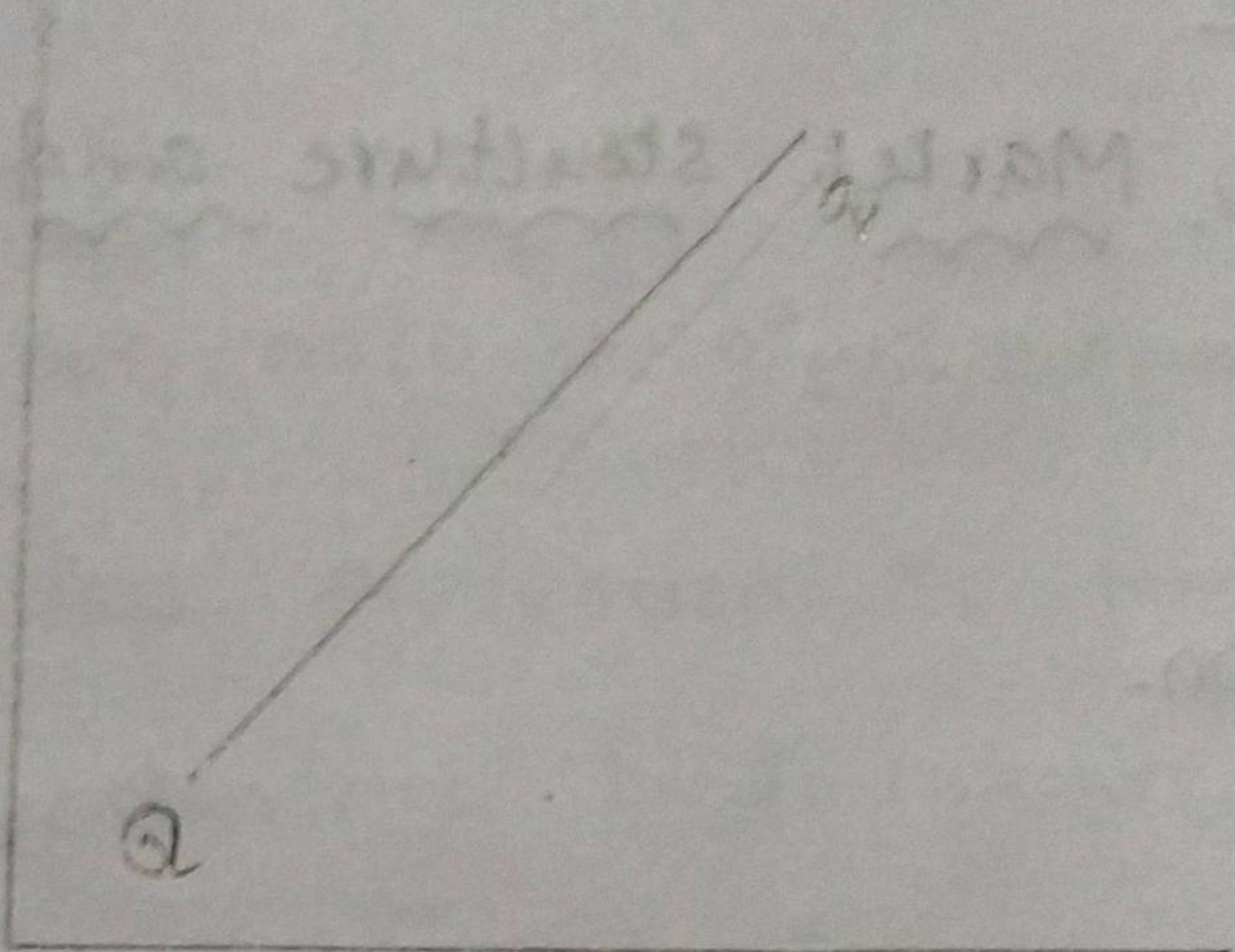
Price



Supply

5/2/2020

Unit # 3

Priceing

Production, Cost, Market structure and Praising

the output of a economy activity

i) Product analysis.

- → Factors of production.
- → Returns to scale.
- → production function.
- → Different types of production function.
- → production function with one variable inputs.
- → production function with two variable inputs
- → Cobb-dougals production function.

ii) Cost analysis.

- → Types of cost.
- → Shortrun & longrun Cost functions.

iii) Market Structures.

- → Nature of Competition.
- → Feactures of perfect Competition.
- → monopoli
- → oligopoli
- → monopolistic Competition.

iv) Praising

- → Types of praicing.
- → Product lifecycle based praicing.
- → Break even analysis.
- → Cost volumn profit analysis.

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Production Analysis :-

Factors of production :-

1→ Production is an ~~outp~~ outcome of the economy activity.

2→ anything that assists, production is termed as factors of production

3. Basic factors of production are land, labour, capital and an entreprenuer

Land :-

Land is the original and primary factor production. Without land the process cannot exceed further, and all natural resources that are used in the production can be comes under land.

Labour :-

1. Labour is a human factor of production.
2. Labours / employees cannot be stored like other factors of production.
3. no two labours are identical in nature.
4. In economics labour is defined as "Economic activity of man with hand and head".

Capital :-

1. Capital is a man made factor of production, which is used to Produce further ~~bett~~ wealth.
2. Capital has mobility, and elastic in nature.
3. It refers to stock of Capital can help ~~up~~ of ~~out~~ to arrange the remaining factors like machines, tools, infrastructure, transportation, etc..

Entreprenuer :-

1. He is aperson who brings land, labour, capital in one place and uses it ~~for the~~ effectively for the production process.
2. He is the person who decides what to produce and how to produce and where to be produced.

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3. He must be a good administrator and must process, Complete knowledge about the system.

5/2/2020

Production function:-

1. The basic relational ship b/w the factors of production and the output is refered has a production function.

2. Production function describes, Purely technological relationship because what can be produced from the organization, depends upon state of amount of inputs.

$$Q = f(L, C, T \ldots etc)$$

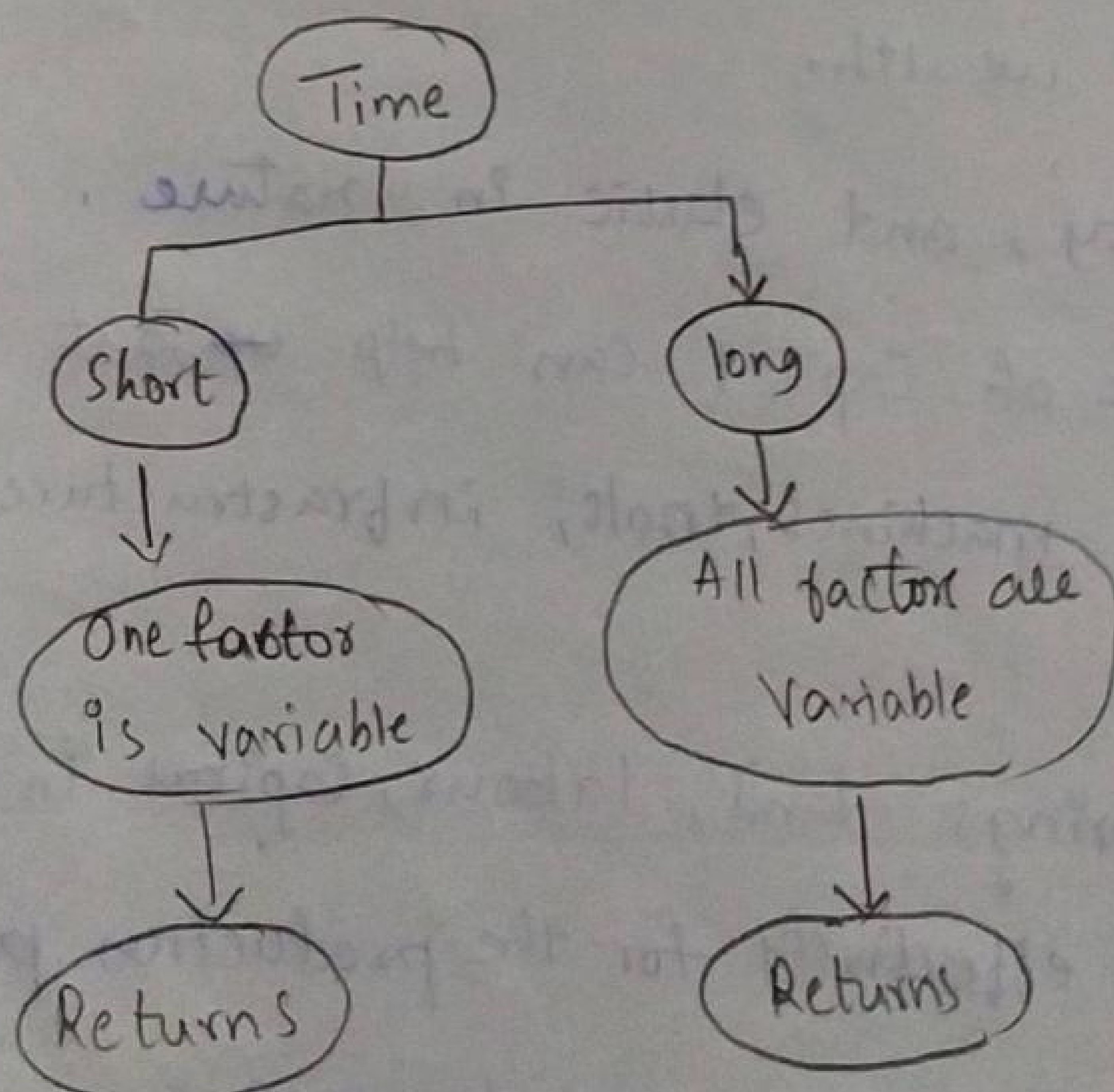
Q = output.

f = factors of L = Labour, C = capital, T = technology

Different types of production function.

Their are two types of production function.

1. Production function with one - variable input.
2. production function with two - variable input.



1. Production function with one -Variable input.

The organization uses a no. of inputs, to produce its output. so in ~~the~~ this Concept the Organization varies the quantity of only one input, by keeping other input quantities. unchange. for the better o/p in the production.

2. production function with two Variable input.

In this Concept the organization varies the quantity of all inputs, of the process for the better Output in the production.

Returns to a scale:-

Law of return to scale, examine the relationship between proportianate change in the output, due to a given proportianate Change in inputs. Their are three stages in ~~2~~ returns to scale.

1. Law of increase in return to Scale:-

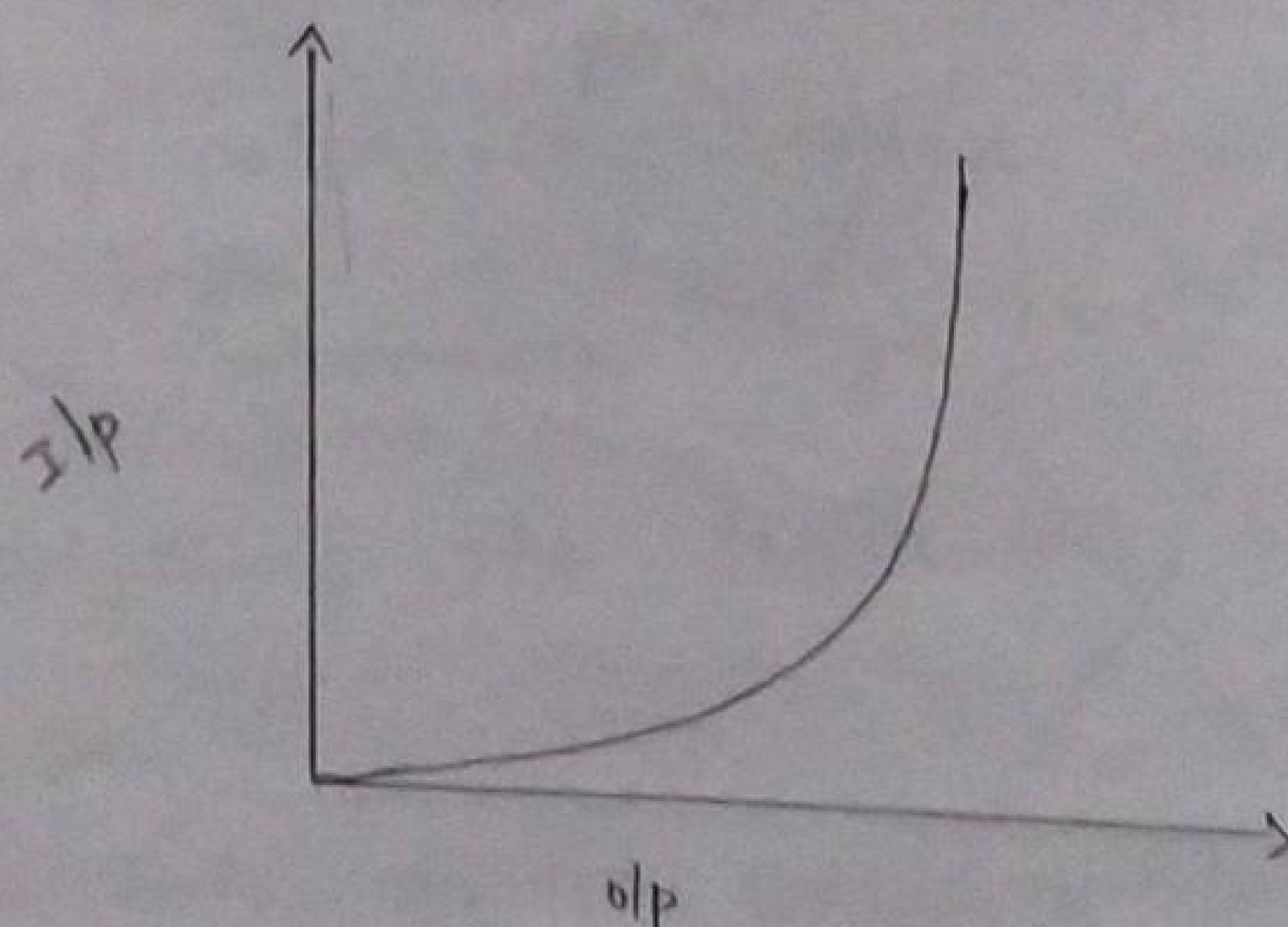
This states that, when factors are increased by a Certain ~~Por~~ proportion output increases more than proportinate change.

10%
C

10%
L

=>

25%
O/P



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2. Law of decrease in returns to scale:-

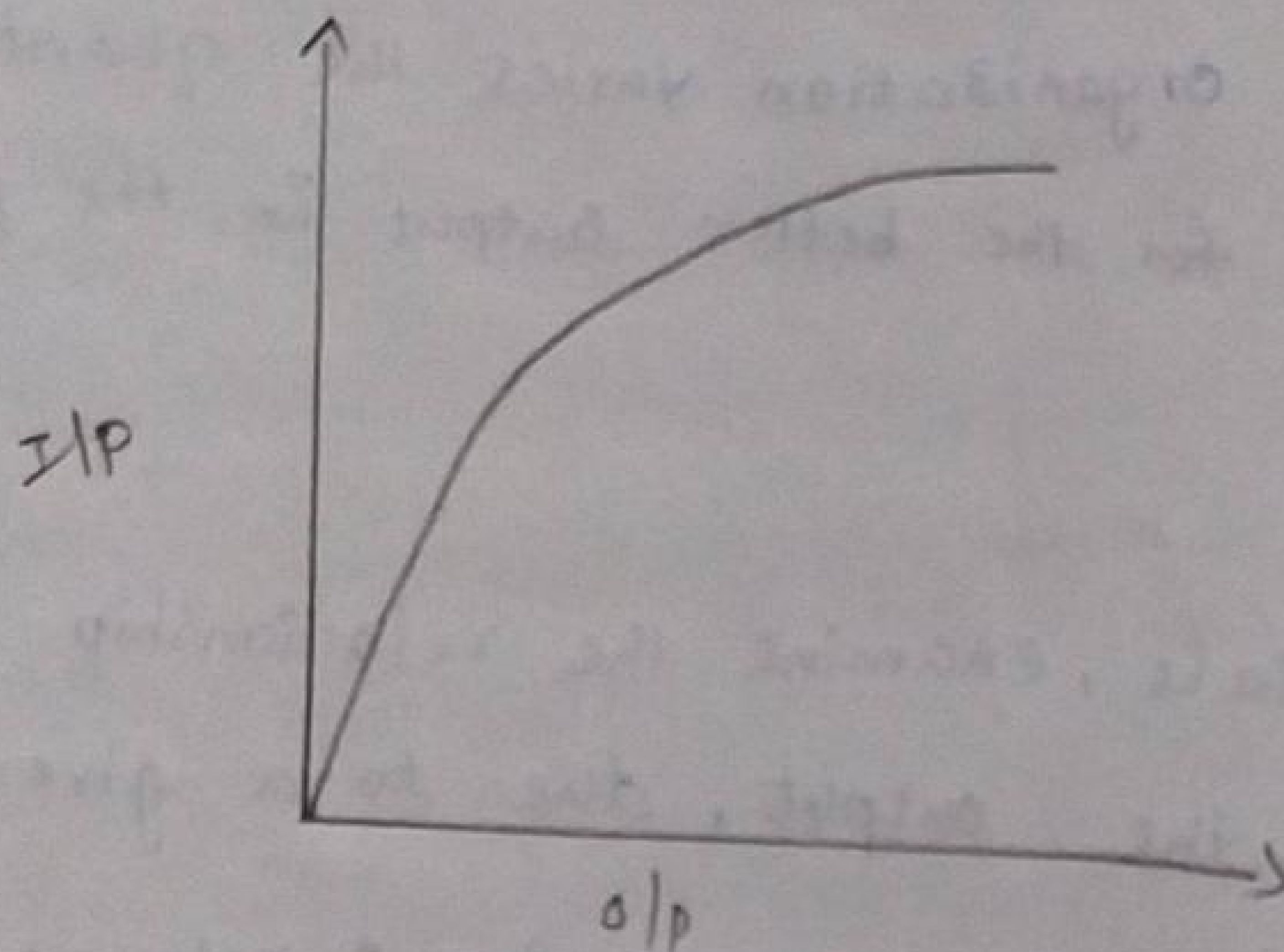
Law of decrease in returns says that when factors are increased by a certain proportion output increases less than proportianate change.

10%
C

10%
L

=>

8%
O/P



Constant returns to scale:-

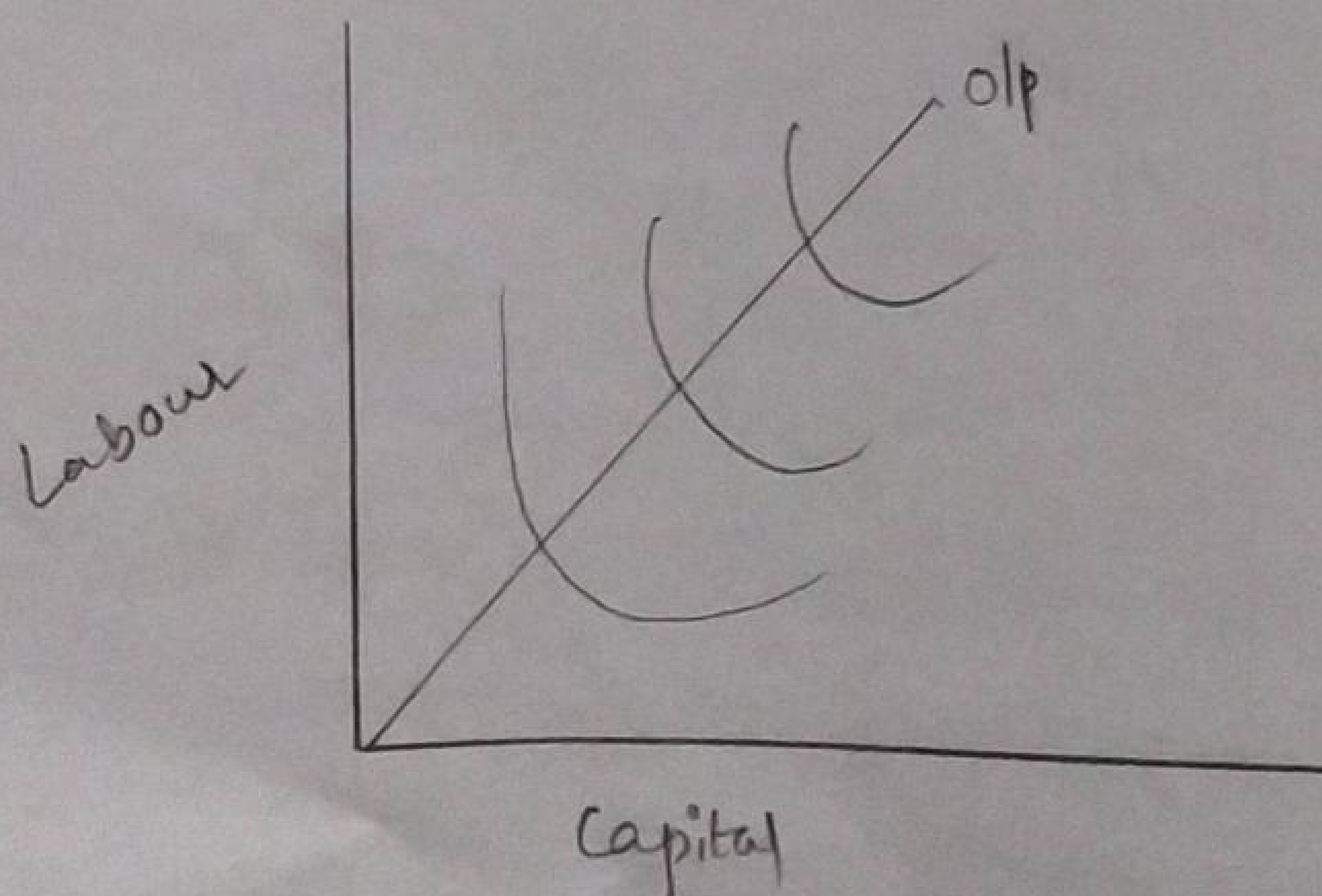
Law of constant returns says that, when factors are increased by a certain proportion output also increases exactly by the same proportion.

10%
C

10%
L

=>

10%
O/P



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Cobb-dougals production function:-

The two mathematicians, went for the survey on production of process, they found that inshort term Labour Contribute 0.75% of total production and Capital Contributes around 0.25 % of total production

They invented a formula based on Labour & Capital

i.e, $Q = k \cdot L^{a} \cdot C^{(1-a)}$

where,

Q = output

L = Quantity of Labour.

C = Quantity of Capital.

k, a = are positive constants.

→ This concept derived that, 1% of change in Capital leads to 0.25% of change in output. and 1% of change in Labour leads to 0.75% of change in output.

* Cost Analysis:- (Types of cost)

1. Fixed cost:-

The cost which donot vary, with change in output, can be called as fixed output cost. Fixed cost might includes, the cost of building, insurance, legal bills etc... even they don't produce anything the fixed cost stay the same.

2. Variable cost:-

cost which depends on the output produced. For example, if you produce more cost, you have to use more raw materials such as metal, which with the pri different price ranges

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So, cost may vary according to several elements likes wages of labour, cost of raw material, maintance charges, fluctuations in electricity bill.

3. Marginal Cost:-

Marginal Cost is the cost of producing an extra unit. If the total cost of three units is 1,550, and the total cost of 4 units is 1900, so the marginal cost is 350.

4. Controllable Cost:-

Controllable cost are those which can be controlled through observation by an exhicutive. For example, avoiding wastage of raw material, minimizing the no. of labours, transportation, usage of electricity etc.

5. Non-Controllable Cost:-

The cost which cannot be subjected to administrative control and supervision can be called as non-controllable cost. For example: Tax rate, prices of raw material, changes in wages, lost.

24/2/2020

6. Incremental Cost:-

Incremental cost are additions, to prices resulting from a change in the nature or level of a product. It is a added cost of a change in the level of activity. Change might be in the form of quantity, or quality or size of a product.

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7. Sunk cost:-

In economics, a Sunk Cost is a cost, that has already been occured and cannot be recovered for example, when a new car purchased it can subsiquently be resold. However it will probably not resold for original price, not only in the case of vechicles but also in the case of machinary, properties, Computers, any other ~~infracture~~ infra-structure facilities. so depriciated cost can be called as sunk cost.

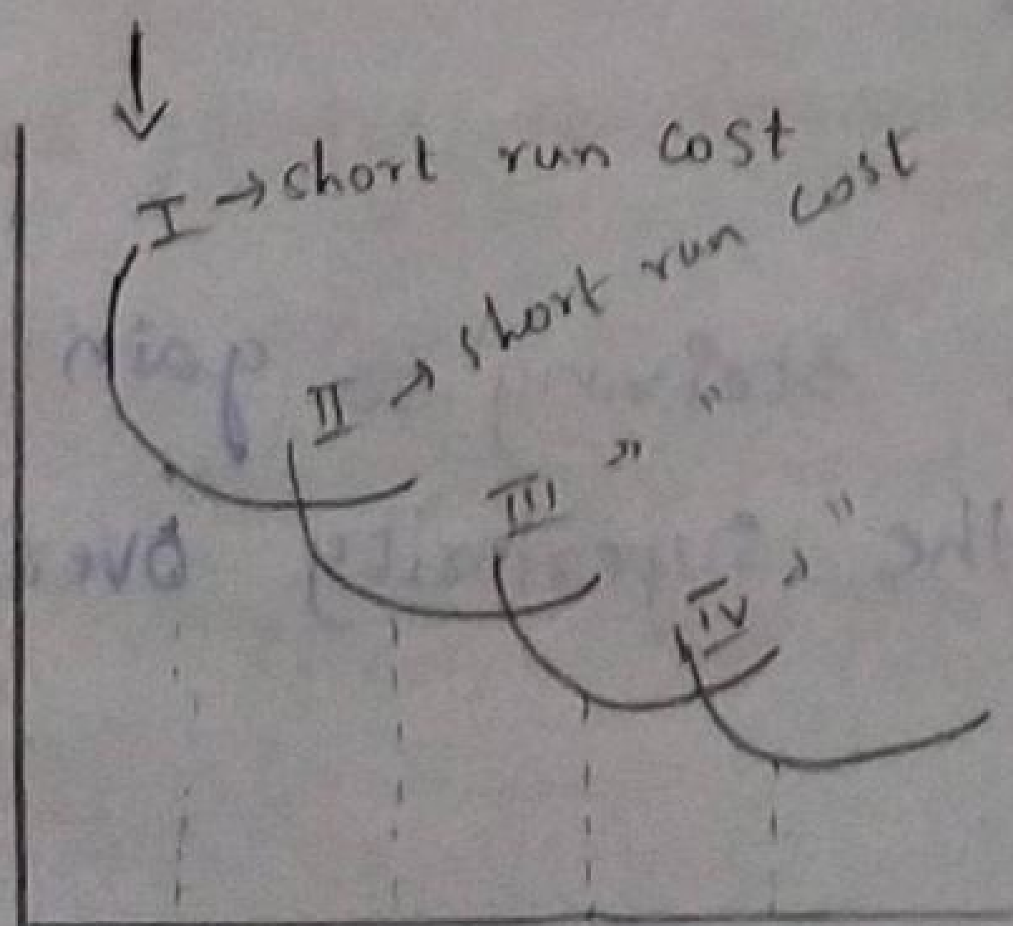
8. Implicit cost:-

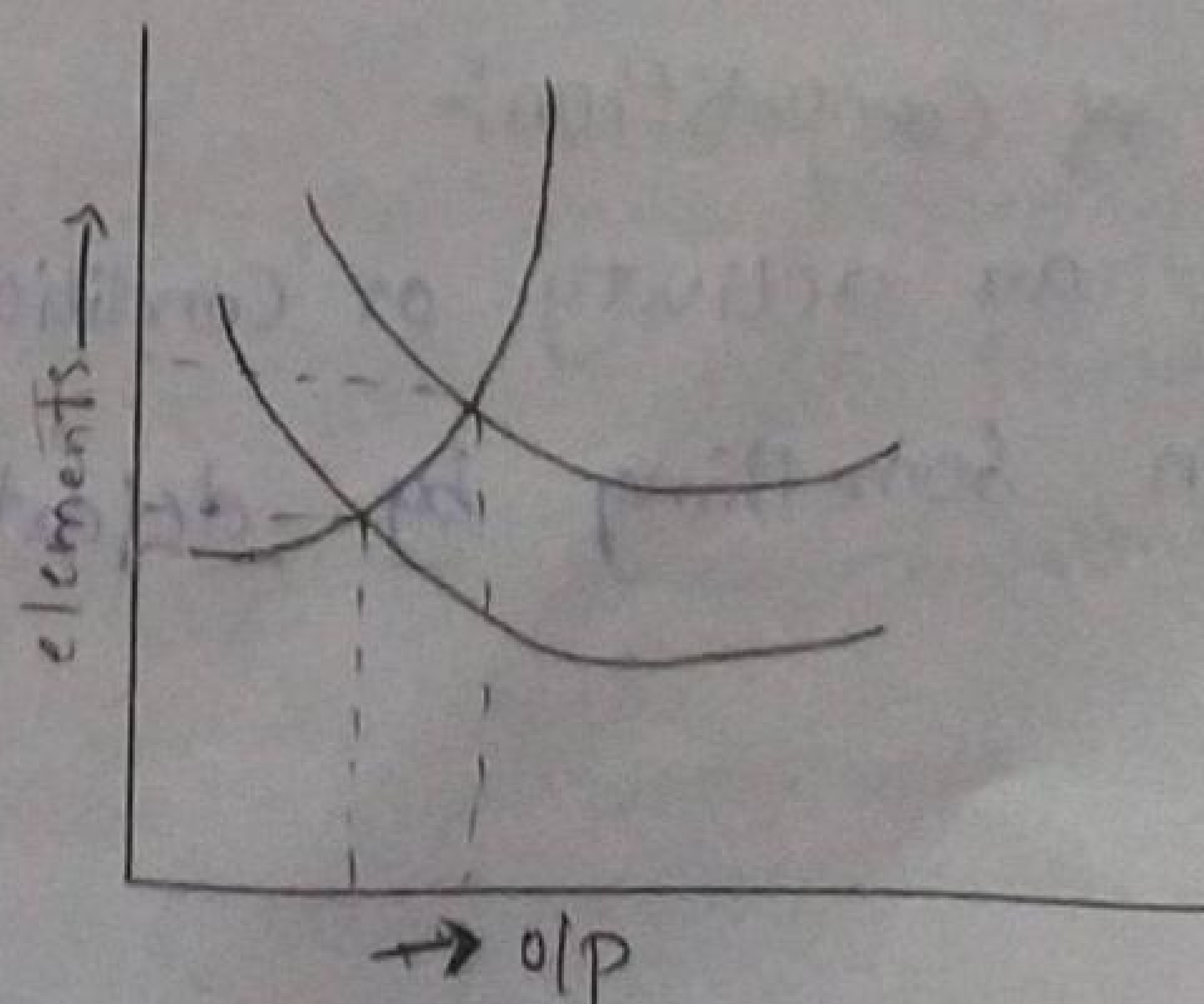
These are oppurtunity cost (can or cannot be used) which donot necessarly appears on it balance sheet but effect on the organization. These are imputed cost which belongs to owner him self.

9. out of pocket cost:-

Reambust amount can comes under out of pocket cost which does not enist in the books of financial department.

* Long run & short run Cost functions:-





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Short run cost function:-

1. In short run, the organisation cannot change or modify fixed factors such as plants, machinary, etc... and even impossible to made changes in variable factors like labour and Raw materials etc.

2. Even the changes in ther inputs may not leads to good results in the output of the production in the case of short run cost function.

Long run cost function:-

1. In long run their is no fixed factors of production and hence their is no fixed cost. because in the long run during the lengthy time period all the inputs are variable.

25/2/2020

buyer (consumer) one of the responsibility of (selling / marketing) doing survey, Analysing the S C reaching the exceptation of costumer

Market ~~Structures~~:-

Market is a social structure, that brings together a baiyer and a Seller to agree a price with exchange of goods and services.

Market structure:-

Market structure refers the nature and percentage of Competition in the market for goods and services.

- ~~Nature of~~ Competition:-

It is an activity or Condition of striving to gain or win something by defeating the superiority over others

Nature of Competition:-

1. Competition is impersonal:-

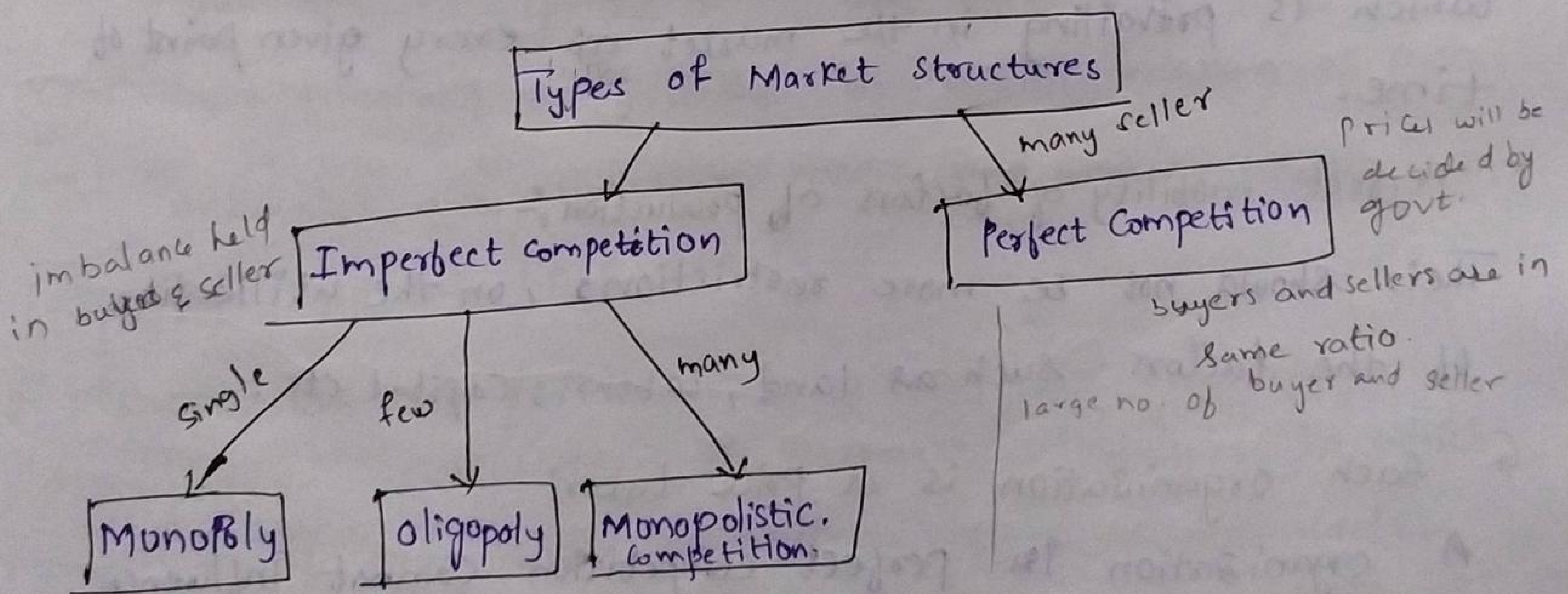
The Competition is usually, not directed against any individual or group in particular.

2. Competition is continouse process:-

It is a never ending process, and it is unstable and frequently results either Co-operation or conflict.

3. Competition is restrained:-

It implies, their are rules of the game to which all Competitators must follow, when compitators breaks the rule it may leads to avoiding them from the Competition



Features of perfect competition:-

A market structure in which all the organisations in an industry are similar and they are price takers in which their is freedom to entry and exist from the industry can be called as perfect competition.

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1. Large no. of buyers and sellers:- Their should be large no. of buyers and sellers available in the market but their is no differences in terms of price and quantity supplied.

2. Homogenous products and services:-
The products and services of each seller should be homogenouse, they cannot be differentiated from one another.

3. Freedom to enter or exist the market:-
Their should not be any restrictions on the part of the buyers and sellers to enter the market and ~~to~~ leave the market.

4. Perfect information available to buyers and sellers:-
Each buyer and seller has total knowledge of the prices which is prevailing for every cycle in the market at every given point of time.

5. Perfect mobility of factors of production:-
Their should not be more restrictions, on the utilization of the factors such as land, labour, capital etc.

6. Each organization is a price taker:-
A organization in perfect competition cannot influence the market through its own individual actions. It has no alternative than selling the products for market price., because they don't have oppurtunity to decide the prices.

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26/2/2020

Imperfect Competition:-

1. Monopoly:-

1. If their is only one seller, then we can call as monopoly enist. An entreme version of imperfect market is monopoly.

2. Here, A single seller controls entire industry.

3. Several reasons for monopoly status is government policies and legal provisions, New innovations etc. Indian Railways have absolutely monopoly as government restricted others to enter the trade transport business.

2. Oligopoly:-

Another variety of imperfect competion is oligopoly. If their is competition among few sellers oligopoly is said to be enist. In oligopoly each individual seller or organization can be involved partially in decision making of price. The enamples are printing media and manufacturing companies and air lines etc.

3. Monopolistic competition:- (They works under Corporation in GHMC)

1. Monopolistic Competition is a market structure in which many no. of organizations selling differentiated products.

2. Their are many sellers and many consumers and also producers of have total control over the price of the product. They don't bother about ~~govtment~~ government rules and restrictions to do the business. They are price makers but not price takers.

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3. Their is no significant barriers to entry but the Competition is strong because plenty of costumers switching to another organisations with more options.

29/2/2020

Pricing:-

Types of pricing:-

1. Pricing is the process, where a business sets the price, at which it will sell its products and services.

2. we have four major wings in types of pricing.

1. Cost based pricing methods:- (Total expenditure used for the production of product)

In this method price will be decided based on cost of the production.

i) Cost-plus pricing:-

In Cost plus pricing, a fixed percentage of profit will be added to the cost, and profit will be taken by the manufacturer.

ii) Marginal cost pricing:-

This approach is, common in evaluating the profitability of new orders and it is the combination of cost plus

Cost + general profit + and extra cost.

iii) Social - cost based pricing:-

This pricing method includes, adding additional charges, to the price based on social conditions like waiting charges delivery charges etc.

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2. Competition Oriented pricing:-

In a Competition oriented pricing, the Company set its price based on the price of the Competator. The organization may charge higher, lower, or equal prices as compact to the prices of its Competators.

i) Sealed bid pricing:-

This method is more popular, in tenders and Contracts. each Contracting organization Codes its price in a sealed cover called tender. all the tenders are opened in a scheduled date and the person who codes lowest price is awarded the contract.

ii) Going Rate pricing:-

Price is charged in tune with the price in the industry as a whole. when the person wants to buy or sell the products the privailing market rate at a given point of time is taken.

3. Demand Oriented pricing:-

As the name suggest this stategy uses the customer demand to set up the price in market, a high price is charge when the demand is high and low price is charge when the demand is low.

i) price discrimination:-

Practise of charging different prices to different customers for the same product. price discrimination is based on customer requirement, income group, etc.

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ii) percieved value pricing:-

Price fixed on the basis of perception of the baier on the value of the product. i.e, demand for a product in the market.

2/3/2020

Stategy - based pricing:-

i) Market skimming:- when the product is introduced for the first time in the market, the company follows this method. under this method the company fixes a very high price for the product the idea is to charge the customers upto maximum extent.

ii) Market penetration:-

opposite the market skimming method is market penetration Here, the product is fixed with less price to attract the customers and to increase the sales margin so that company can increase market shape.

iii) Block Pricing:- Block pricing is another way to attract the customers so that organisation can enhance its profits we can see block pricing in our day to day life. For example; 6 products in single pack can illustrate block pricing method. By selling certain number of units as one package the organisation earns more than selling single product.

iv) Commodity Bundle:- Commodity bundling refers to the practice of bunching two or more different products or services together and selling them at a single price.

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for example the package deals offered by the tourist Companies, Airlines etc.

v) peak load pricing:-

During Seasonal period when the demand is high for the product or service the organisation may enchance profits by implementing peak load pricing. The organisation's philosophy is to charge higher among during peak times.

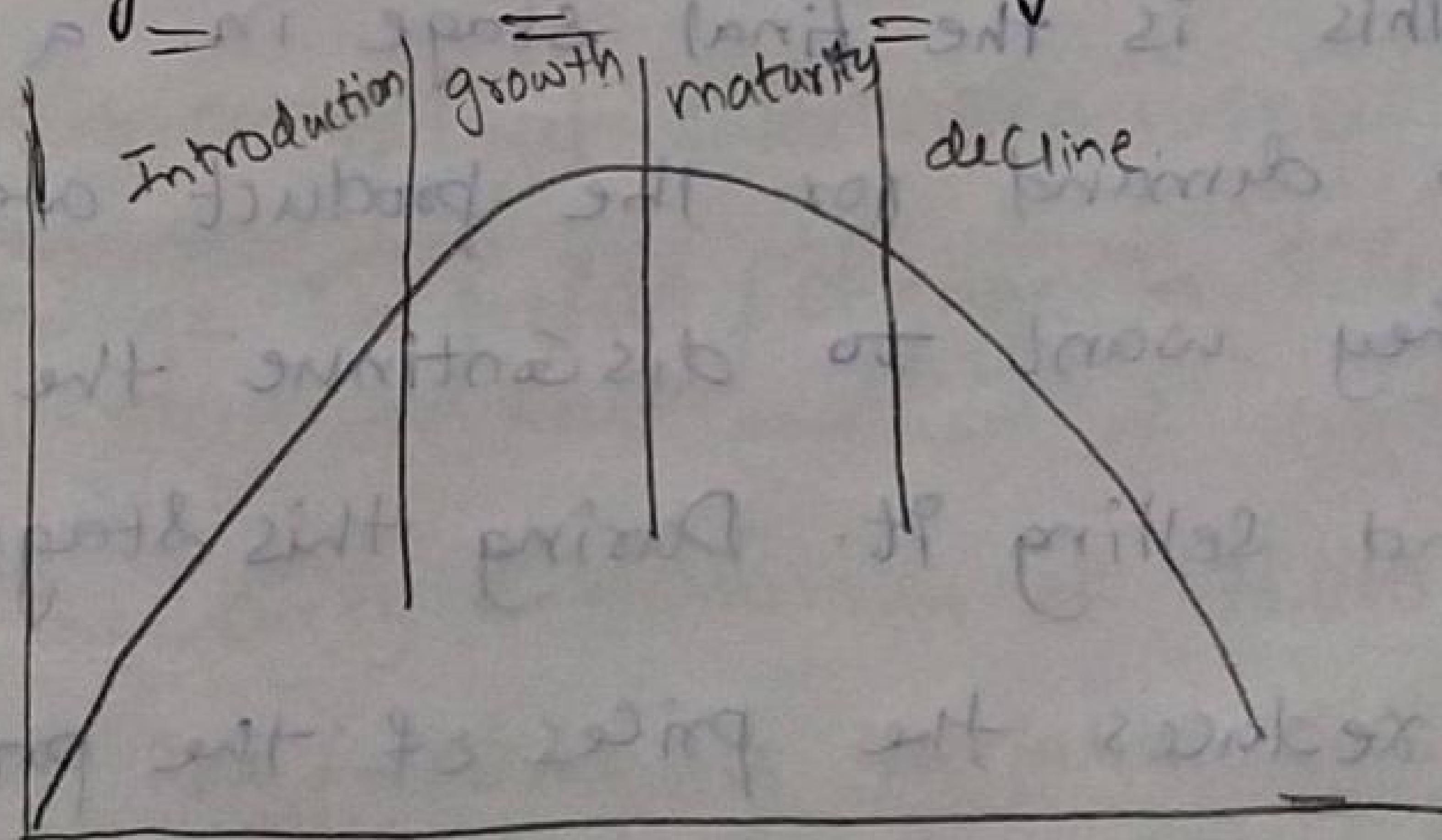
vi) Cross - Subsidisation:-

Cross - subsidisation is pricing strategy in which the sale of one product is used to subsidize sale of another products.

vii) Two - part pricing:-

In this Concept the entire price has divided into two parts. It is a form of pricing in which Consumers are Charged both and entry fee as well as usage fee.

* Product life cycle Based pricing:-



i) Introduction:-

This is a the initial stage of a product life cycle when the product is introduced first time to the market sales are slow be cause unawareness of the product among the customers.

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In this stage business might choose to introduce the products with high prices to earn the investment and adapts market skimming strategy in pricing.

ii) Growth:

During the growth stage there is high demand for the product so this is really a great stage for the product. so to face the competition business can choose competetive pricing strategy.

iii) Maturity:-

In this stage most of the targeted customers already have the product and company can enjoy maximum profits and also market share. so even in this stage business continue to using the competitive pricing strategy to attract the customers and to face the competition effectively.

iv) Decline:- This is the final stage in a product life cycle There is less demand for the product and business must decide if they want to discontinue the product (or) keep producing and selling it. During this stage many organisations reduces the prices of the products and uses market penetration stategy.

* Break even Analysis (BEA)

⇒ List of the formulas:-

1. Selling price = Fixed ~~price~~ Cost + Variable Cost + profit.

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ii) Contribution = Selling price - Variable Cost

iii) Contribution per unit = Selling price per unit - variable cost per unit

iv) Break even point in units = $\frac{\text{fixed cost}}{\text{Contribution margin per unit}}$.

v) Break even point in value = $\frac{\text{Fixed Cost}}{\text{Contribution margin ratio}}$.

vi) Contribution margin ratio :-

selling price - variable cost / selling price.

vii) P/v ratio :- Contribution / sales x 100

viii) BEP in terms of P/v ratio.

= fixed cost / P/v ratio.

ix) Margin of safety (MOS): net profit / p/v ratio.

x) Net propit = Sales - (fixed cost + Variable cost)

xi) Margin of safety :- Actual sales - BEP sales.

xii) P/v ratio = change in profits / change in sales.

Problems:-

1. A train can carry a maximum of 36,000 passengers per annum at a fair of 400/- and a variable cost per passanger is Rs -150/- while fixed costs are 35 lakhs per year, find the break-even point in terms of no. of passengers and in terms of collection.

Sol BEP in terms of passengers = $\frac{\text{F.C}}{\text{Contribution margin per unit}}$.

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Contribution M per unit = (S.P − VC)

$$= \frac{35,00,000}{400-150}$$

$$= \frac{35,00,000}{250}$$

= 10,000 passengers

Collection = $\frac{F.C}{CM\text{-Ratio}}$

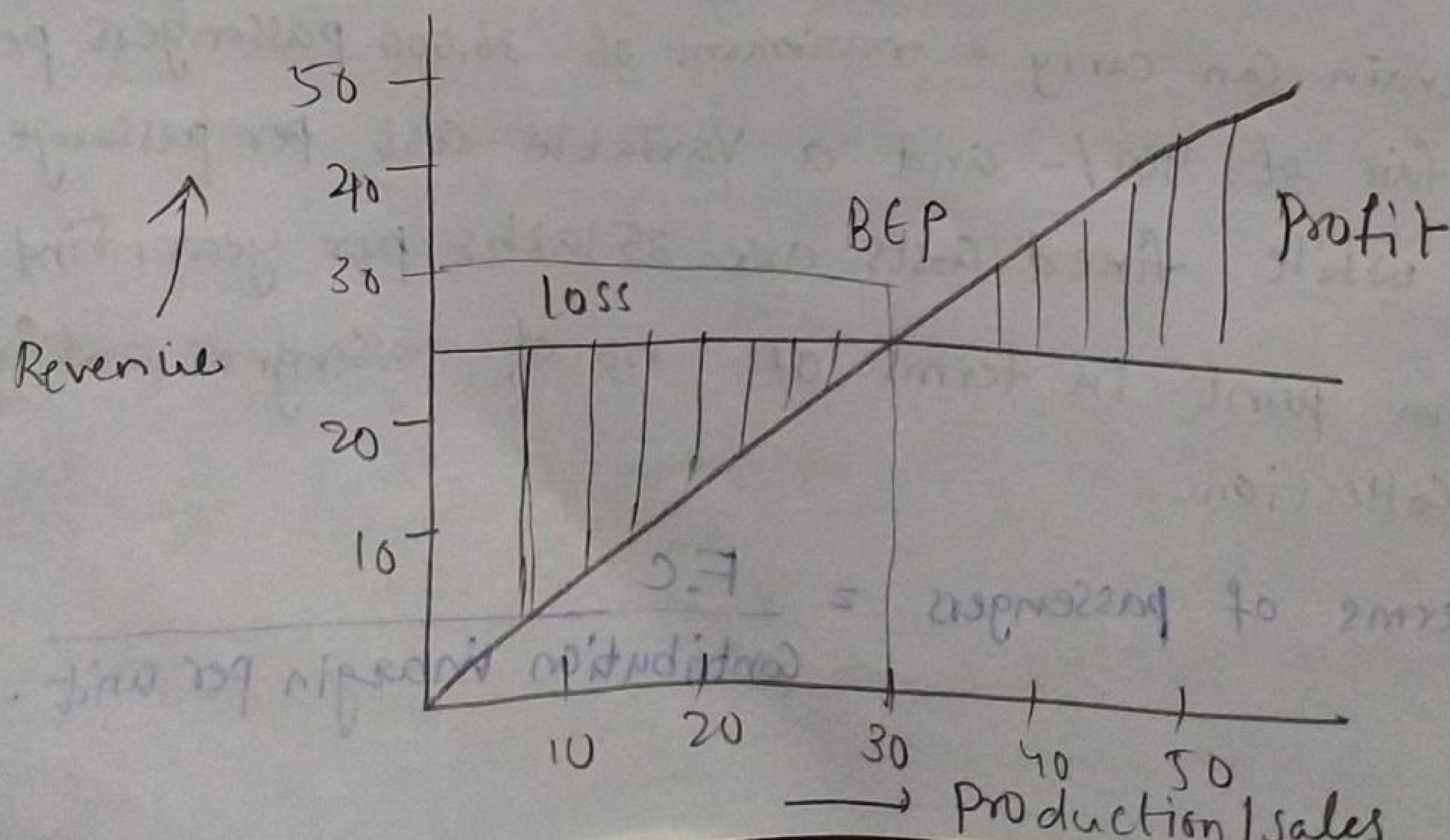
$$= \frac{}{\left(\frac{S.P - V.C}{SP}\right)}$$

$$= \frac{25,00,000}{\frac{400-150}{400}}$$

= 40,00,000 RS.

- Break even - Analysis (Defination)

Break even Analysis used to determine how much sales your business needs to earn profits. In economics, break-even point is the situation at which the cost and expenses and income are equal means there is no loss and no gain.



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Cost volume profit Analysis:- (CVP)

1. CVP analysis is the analysis of three variables, i.e Cost, Volume, and profit. Such analysis explores the relationship b/w cost of the products and revenue of the organisation and level of production.

- The above three are very important important elements to analyse CVP.

2. CVP is helpful to decide, the price of the product and to make decisions on sales orders, and also to decide the level of output.

3) The major objective of CVP is to understand the price fluctuations of the product with reference to cost and level of production.

Q. An enterprice deals in the supply of hardware parts of the computer. The following data is available for two years.

Calculate break-even point and margin of safety for both first year and second year.

Data	year-1	year 2
Sales	50,000	1,20,000
Fixed Cost	10,000	20,000
variable Cost	30,000	60,000

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Sol:- Consider sales as selling price

BEP in terms of p/v ratio

= fixed cost / p/v ratio

p/v ratio = Contribution / sales × 100

Contribution = selling price − variable cost

Year 1 = 50,000 − 30,000 = 20,000

year 2 = 1,20,000 − 60,000 = 60,000

p/v ratio (year 1) = $\frac{20,000}{50,000} \times 100$

= 40%.

(Year 2) = $\frac{60,000}{1,20,000} \times 100$

= 50%.

BEP (1 year) = $\frac{10,000}{40}$ = 250 × 100 = 25,000

BEP (2 year) = $\frac{20,000}{50}$ = 400 × 100 = 40,000

Margin of safety = Actual sales − BEP sales

1 year = 50,000 − 25,000

= 25,000

2nd year = 1,20,000 − 40,000

= 80,000

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