PAGE No.
DATE / /

1. Demand-

Demand means an effective desire, that is the desire coupled with purchasing power in order to become demand.

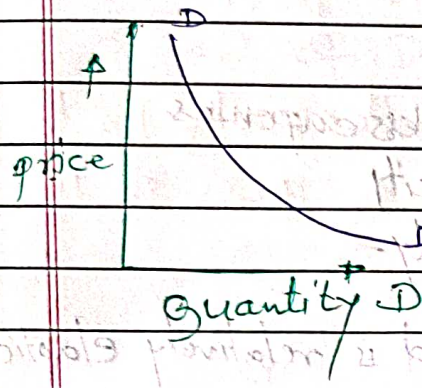


fig: Demand curve
- negative slope.

a. Law of demand-

The relation between price & demand is ~~km~~ known as "law of demand"

"Higher the price, lower the demand & vice-versa, other things remains the same".

b. Elasticity of demand-

"The degree of responsiveness of quantity demanded to a change in price."

- It is not clear that, how much increase in price lowers how much demand. For knowing the range, the elasticity of demand should be known."

c. Factors affecting elasticity of demand-

i. Type of commodity-

necessities, wheat, sugar, salt - demand never changes with the price. - inelastic demand.
like.

luxuries like - television, cosmetic changes with the price - elastic demand.

ii. customers income - milk, fruits etc.

iii. Part of income spent on commodity -

iv. Use of commodity -
if many uses - elastic demand
steel - price change the demand

v. Durability of commodity -
foot wear, - repair - less expenses
more demand - higher elasticity

vi substitute for the commodity -
no. of substitutes → demand is relatively elastic
petrol price rise ↑ car ↑
scooters, buses or cycles ↑

vii. Urgency of demand -
price of essential commodity ↑ wheat, sugar, salt
Contrary habit of smoking - demand elastic if
price ↑ reduce no. of smoking ↑

viii)

- Relative elastic demand -
when a reduction in price leads to less than proportional increase in demand - Here demand curve is steep.
eg. b, d, e cases.

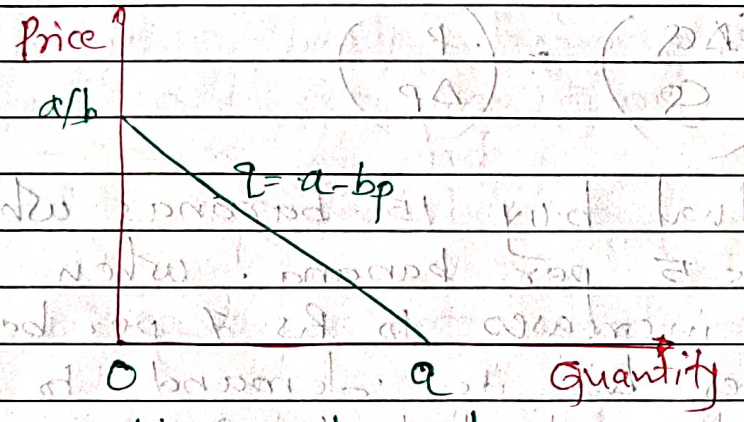
- Change in demand -
"An increase or decrease in demand."
Increse in demand - at same prices. ~~Vice~~ low
curve towards right
ie. "shift in demand schedule"

PAGE No.
DATE / /

- causes - increase in peoples income
- discovery of new use of the product
- an improvement in customers' tastes etc.

Law of Demand -

Law of demand states that other things being equal, there is negative relation between demand for a commodity and it's price. In other words, when prince of the commodity increases, demand for it falls and when the price of the commodity decreases, demand for it rises, other factors remaining the same.



$d(p) = a - bp$;

$0 \leq p \leq a/b$

$= 0$; $p > a/b$

linear demand curve

At price 0, demand is a.

at price a/b, demand is 0.

Elasticity of Demand -

The demand for a good moves in the opposite dirn of it's price. But the impact of the price changes is always not the same.

Demand, price responsiveness etc.

Price elasticity of demand for a good is defined as the percentage change in demand for the good devided by the percentage change in its price.

$$e_D = \frac{\% \text{ change in demand for the good}}{\% \text{ change in the price of the good}}$$

$$= \frac{\left(\frac{\Delta Q}{Q}\right) \times 100}{\left(\frac{\Delta P}{P}\right) \times 100}$$

$$= \left(\frac{\Delta Q}{Q}\right) \times \left(\frac{P}{\Delta P}\right)$$

Ex: An individual buy 15 bananas when its price is Rs 5 per banana. When the price increases to Rs 7 per banana, it reduces his its demand to 12 bananas Calculate demand elasticity.?

→

$$\% \text{ change in quantity demanded} = \frac{\Delta Q}{Q} \times 100$$

$$= \frac{12-15}{15} \times 100 = -20$$

$$\% \text{ change in market price} = \frac{\Delta P}{P} \times 100$$

$$= \frac{7-5}{5} \times 100 = 40$$

PAGE No.
DATE / /

$\therefore |e_D| = \left|\frac{-20}{40}\right| = 0.5$

$e_D < 1$ .. at this price. inelastic demand (less responsive) .. (essential commodity)

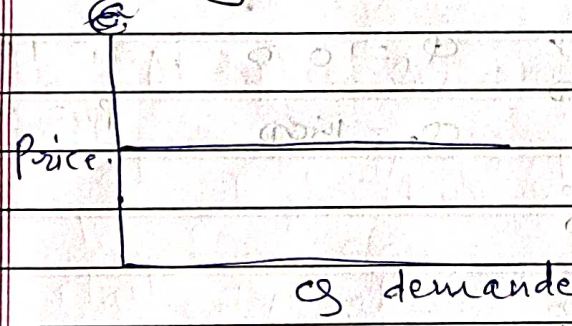
$e_D > 1$ —"— elastic demand (highly responsive) (luxury goods)

$e_D = 1$ ... Unitary elastic at the price.

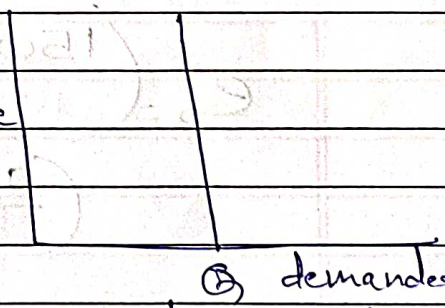
- Factors determining price elasticity of demand for a good.
  - nature of good
  - the availability of close substitutes of the good

Measurement of elasticity (3.4 P.No. Ar. Yasri)

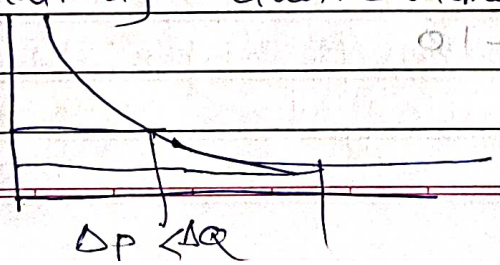
a. perfectly elastic demand



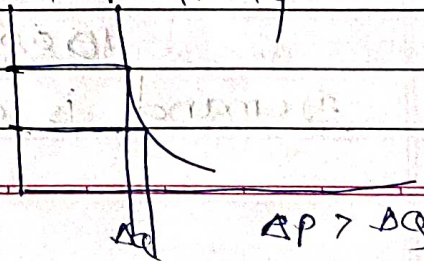
b perfectly inelastic demand



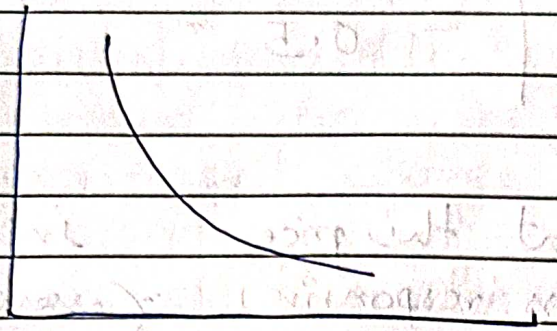
c. Relatively elastic demand



d. Relatively inelastic demand



e) Unity elasticity



$\Delta P = \Delta Q$

Ex:1 elastic pric demand $(e>1)$ – Determine price elasticity of demand.

– The quantity demanded for product is 1000 unit at a price of 100 Rs.

– The price declines to Rs 90. & the quantity demanded increases to 1500 unit.

Elasticity of price demand

$$= \frac{\frac{\Delta Q}{Q} \times 100}{\frac{\Delta P}{P} \times 100} = \frac{\frac{500}{1000} \times 100}{\frac{-10}{100} \times 100}$$

$$= -5$$

$Q_1 = 1000$, $P_1 = 100$

$Q_2 = 1500$ $P_2 = 90$

$$e_D = \frac{\left(\frac{1500-1000}{1500}\right) \times 100}{\left(\frac{90-100}{100}\right) \times 100}$$

$$= \frac{500}{1500} \times \frac{100}{-10} = -0.333 = -5.00$$

Demand is elastic

PAGE No.
DATE / /

Ex2: Inelastic price of demand ($e > 1$)

Determine the price elasticity of demand given that,

- The quantity demanded for product M is 1000 units at a price of Rs. ~~1000~~ 100/-
- The price declines to Rs. 70/- and the quantity demanded increases to 1100 units.

→

$$e_D = \frac{(1100 - 1000)/1000}{(70 - 100)/70} = \frac{100}{1000} \times \frac{70}{-30}$$

$$= 0.2333 < 1$$

Ex3: Unity price elasticity ($e = 1$)

Determine the price elasticity of demand given that,

- the quantity demanded for product M is 1000 units at a price of Rs. 100.
- The price declines to Rs 50 and the quantity demanded increases to 1500 units.

→

$$e_D = \left[\frac{(1500 - 1000)}{1000}\right] \Big/ \left(\frac{50 - 100}{100}\right)$$

$$= \frac{500}{1000} \times \frac{100}{-50} = -1$$

50% fall in price, raises the demand by 50%.

PAGE No.
DATE / /

→ Price elasticity of Goods & services -

Goods/services	price elasticity
Brinjals	3.5
Cabbage	2.8
health insurance	1.9
public transport	1.0
electricity for domestic purpose	0.5

significance to trader
He can take a decision as to how much he can supply if he is aware of the likely change in quantity demanded as result of price change

(B) Income elasticity of demand -
Income elasticity of demand refers to the quantity demanded of a commodity in response to a given change in income of the consumer.

$$= \frac{\text{Proportionate change in quantity demanded for product X}}{\text{proportionate change in income}}$$

(iii) significance - trader
He can estimate the likely changes in the demand for his product as a result of changes in national income.
eg. Automobile, refrigerators etc.

Superior good - $e_{income} > 1$ - Automobile, refrigerators
Normal good - $e_{income} = 1$, $e_{income} < 1$
Inferior good - e_{income} is -ve

c) Cross elasticity of Demand -
in response to a change in the price of a related good, which may be substitute or component.

= proportionate change in quantity demanded of product X / proportionate change in price of product Y

Significance -
likely to affect pricing decisions of it's traders dealing in related products or sales

d) Advertising Elasticity -
It refers to increase in the sales revenue because of change in the advertising expenditure. Advertising elasticity is always positive.

Advertising elasticity = Proportionate change in quantity demanded for product X / proportionate change in advertisement cost.

significance - The advertising agencies richly depend on this concept to provide consultancy for their clients about the advertisement budget for a given level of sales activity.

PAGE No
DATE / /

Demand Analysis-

What is demand ?

—Desire, willingness to pay, Ability to pay

— Practical Applications of elasticity of Demand-

1. To businessmen:
   hotels - airlines, ferries,
   peak & off-peak season
2. To the Government & Finance Minister -
3. In international trade.
4. To policy makers -
5. To trade Unionists -
   — wage bargening.

§ Utility - (Khanna publishers' P.No 1059)

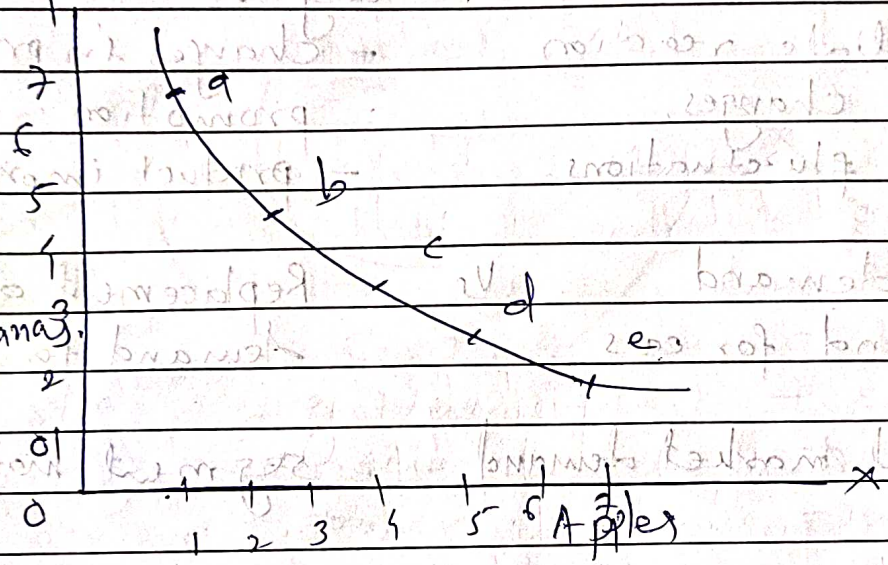
The power of things & services to satisfy some human wants.

Types of economic utility

1. Form utility -
   eg. table out of a log of wood.
2. place utility -
   eg. bringing timber from mountains to plains
3. Time Utility -
   eg. storing articles, by shopkeepers.
   vegetables & fruits — cold storage
4. Possession Utility -
   eg. selling of table by carpenter to an office

5. Service Utility -
eg. doctors, lawyers, teachers, domestic servents etc.

6 Indifference Curve - (Dr. Mithani p. No. 118, 119)
is the locus of points representing all the different combinations of two goods (say X & Y) which yield equal utility or satisfaction to the consumer.



It represents all possible combinations of two goods under consideration that give the consumer equal satisfaction

Demand Analysis (RNO 2.6 Aryasri)
Nature & types of demand -
1. Consumer goods Vs producer goods.
bread, apple, rice. tractor, machinery etc.
micro economic good
2. Autonomous Demand Vs Derived demand.
multispeciality hospital steel, cement, de hotels
house

PAGE No
DATE / /

3. Durable Vs perishable goods.
Rice, wheat, milk, vegetables, fruits.
sugar, etc.
TV, refrigerator, washing
M/c. etc.

4. Firm demand. Industry demand
single business unit group of firms.

5. Short-run demand long run demand.
immediate reaction - changes in pricing.
to price changes, - promotion
income fluctuations. - product improvement

6. New demand Vs Replacement demand.
demand for cars demand for spare pa

7. Total market demand segment market dem

— Production & Cost - Class 12

production is the process by which input are transformed into 'output'.
eg. a tailor, a farmer, a car manufacturer, A rikshaw puller, domestic helper etc.

— Production function -

PAGE No.
DATE / /

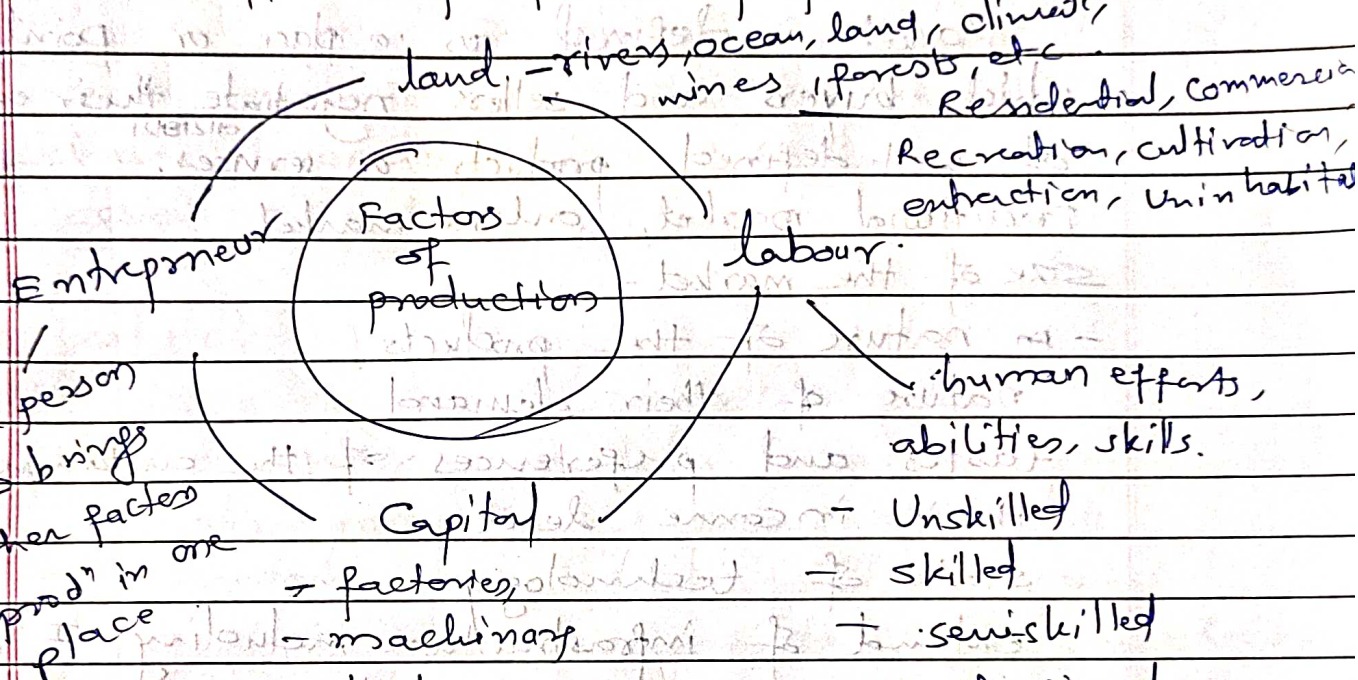
Production function -

production -

→ Factors of production -

Any thing that helps in production is the factor of production.

Types of factors of prod^n



PAGE No
DATE / /

Market and Market structure

price and output determination under perfect competition, monopolistic competition, oligopoly & monopoly, Depreciation & methods for its determination.

Market -

Market is defined as a place or point at which buyers and sellers negotiate their exchange of well-defined products or services.
traditional market, online market

Size of the market -

- nature of the products
  nature of their demand
  tastes and preferences of the customers
  their income level
  state of technology
  extent of infrastructure including IT, Telecom
  time factor - short & long run.

Market structure refers to the characteristics of a market that influence the behaviour and performance of firms that sell in that market.

- Based on following features -

a. The degree of seller concentration
   no. of sellers - & their market share
b. The degree of buyers concentration -
   no. of buyers - & their extent of purchase
c. The degree of product differentiation -
   ↓ varieties, brands eg. cars
d. The condition of entry into the market -
   no. of firms ↑ restrictions to enter in market ↓

PAGE No.
DATE / /

Competitive market situations-

power of individual firm to influence the market ↓ Competitiveness of market ↑

Types of competition -

perfect market — imperfect market

g. Financial market & agricultural products.

* Features of perfect market -

a. large number of buyers & sellers.
b. Homogeneous products & services -
same product, same price, no discounts.
c. Freedom to enter or exit the market.
d. perfect information available to the buyers & sellers.
e. perfect mobility of factors of production.
f. Each firm is a price taker.

1. Total revenue -
= price per unit × no. of units produced & sold
$TR = P \times Q$

2. Average revenue = $TR/Q = (P \times Q)/Q = P$

perfect Competition
Price = Average revenue (AR) = Marginal Revenue (MR)

PAGE No
DATE / /

Imperfect competition-

→ **Monopoly** - एकाधिकार, मक्तेदारी

If there is only one seller, monopoly market is said to exists.

eg. Maruti-Suzuki
state electricity Boards.

Monopolistic Competition-

where a large no. of sellers produce differentiated products, monopolistic competition is said to exist.

For Cameras-
zoom lense, focal length, size of cameras, aperture, exposure controls, flash, safety, digital date display
Yashica, Nikcon, kodak

→ **Duopoly** -

If there are two sellers, duopoly is said to exist.

eg. pepsi & coke - soft drinks.
VSNL, MTNL - satellite communication.

→ **Oligopoly** - अल्पाधिकार

If there is competition among a few sellers, oligopoly is said to exist.

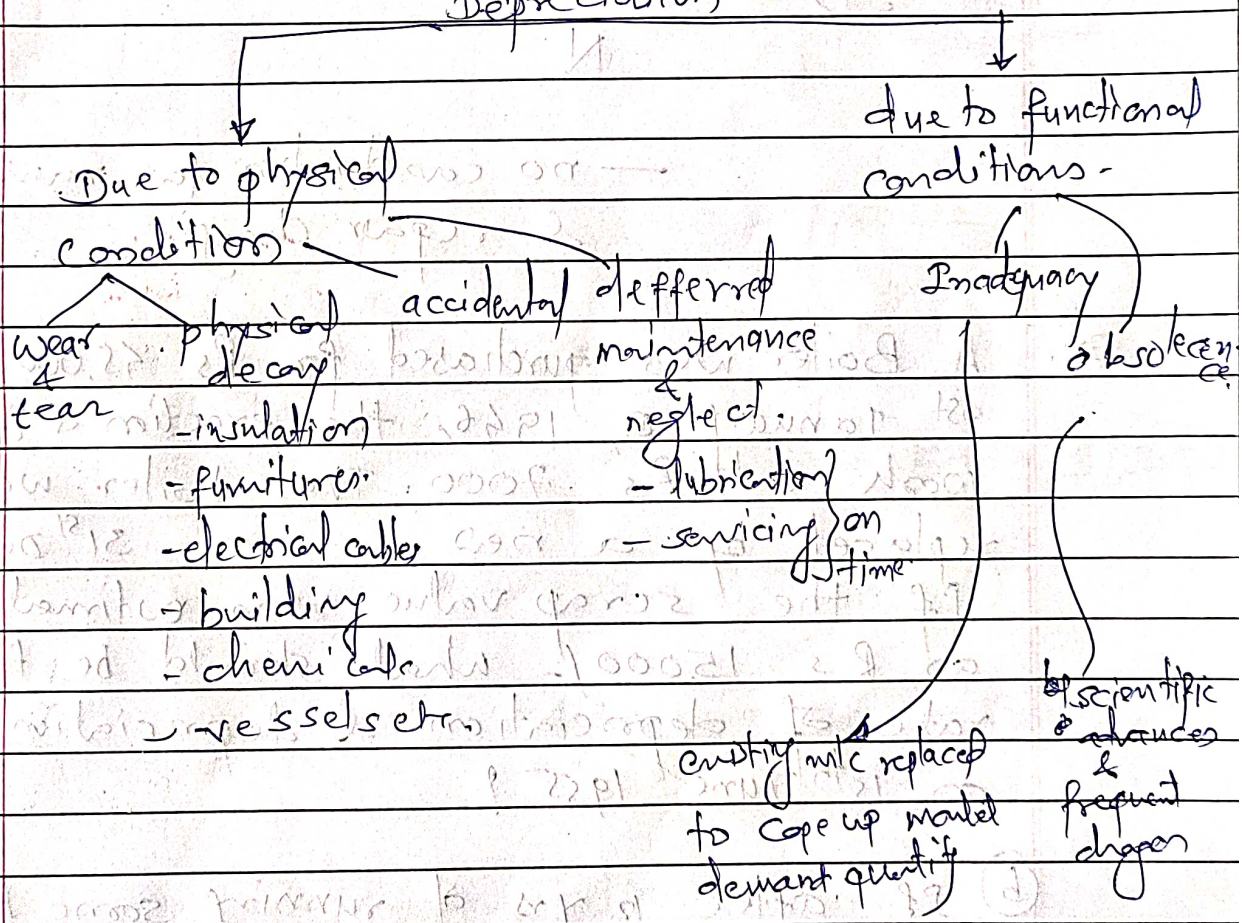
eg. Car mfg Companies (Maruti suzuki, Hindustan Motors, Toyota so on)
Newspapers -

Monopsoni – If there is only one buyer, monopsoni market is said to exist.
D-uopsoni – If there are two buyers,
Oligopsoni – If there are few buyers.

Depreciation -

Efficiency and value of machine or asset constantly reduces with the lapse of time during use, which is known as "Depreciation."

– Types of Depreciation -



PAGE No
DATE / /

Methods of Calculating Depreciation.

1. Straight Line Method :-

This method assumes that the loss of value of machine is directly proportional to its age.

Let C - initial cost of m/c.
N - no. of years of life of m/c.
S - be the scrap value
D - depriciation amount

$$D = \frac{C - S}{N}$$

— no consideration for maintenance & repair charges.

Ex. A Boiler was purchased for Rs 45,000 on 1st January @ 1946, the erection & installation work cost Rs 7000. The boiler was replaced by a new one on 31st Dec 1960 If the scrap value was estimated as Rs 15,000/- what should be the rate of depriciation & depriciation fund on 15th June 1955 ?

(b) If after 12 yrs of running some boiler tubes are replaced and the replacement cost is Rs. 1500, what will be the new rate of depreciation ?

→

PAGE No.
DATE / /

(a) Total cost = Boiler cost + installation charges
= 45000 + 7000 = 52,000/-

S = Scrap value = Rs 15000/-

N = life of boiler = 20 yrs (1965 - 1946)

∴ Rate of depreciation $= \frac{C-S}{N} = \frac{52000-15000}{20}$

= 1850/- / year.

∴ Depreciation fund = 1955 - 1947 = 9 years for.

= 9 × 1850 = 16650/-

(b) After 12 years.

book value = 52,000 − 1850×12

= 29800/-

& replacement cost = 1500

∴ New book value = 29800 + 1500 = 31,300/-

Scrap value remain same = 15000/-

∴ Depreciation for 8 years = (31,300 − 15,000)

= 16,300/-

New rate of depreciation = $\frac{1630}{8} = 2037.5$