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## Introduction

Alfred Marshall, father of economics, once stated that "Everyone lives by exchanging." It manifests the significance of trade in the globalized world. International trade theories of comparative advantage and factor endowments have laid the foundation for the beneficial trade system. These theories are of immense importance for Pakistan in order to reap the actual potential and benefit of trade.

### i) Comparative Advantage Theory

According to the comparative advantage theory, a mutual benefit trade can take place between two countries, if a country which has absolute advantage in the production of both goods will specialize in the production

of the good in which its degree of absolute advantage is higher. While, other country which has absolute disadvantage in the production of both goods will produce and specialize in the production of good in which its degree of comparative disadvantage is lower.

## ii) Assumptions of Comparative Advantage Theory of Trade

### 1) 2x2x1 Model

It states that there exist only two countries, producing two goods and <sup>with</sup> only one factor of production that is labor.

### 2) No transportation cost

It is assumed in this theory that exist no transportation cost which could influence price.

### 3) Labor is homogeneous

All units of labor are homogeneous in the terms of skills, knowledge and performance.

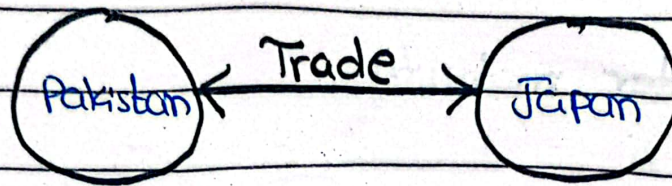
- 4) **Perfect Competition exist in both Markets**  
It assumes that perfect competition exist in both countries.
- 5) **Taste of Consumer remain constant**  
Taste of consumer remains constant and consumer consume the two goods produced.
- 6) **No factor mobility**  
Factors of production are immobile due to international boundaries.
- 7) **Output is homogenous in Quality**  
Another important assumption is that output produced in both the countries is homogenous in its quality.

### iii) **Benefit for Pakistan**

By applying this theory, Pakistan can get benefit from international trade. First of all, Pakistan needs to trace its comparative advantage in the production of goods. Then, it should specialize in the production of such goods and

earns foreign exchange by exporting these goods.

## iv) Example of Pakistan-Japan Trade



Let us assume that both countries are producing electronic items like laptop and cotton by using labors.

Countries	ton cotton	Laptop
Pakistan	20	15
Japan	10	5

It is seen from table, Pakistan has comparative advantage in both goods.

## v) Opportunity Cost Schedule

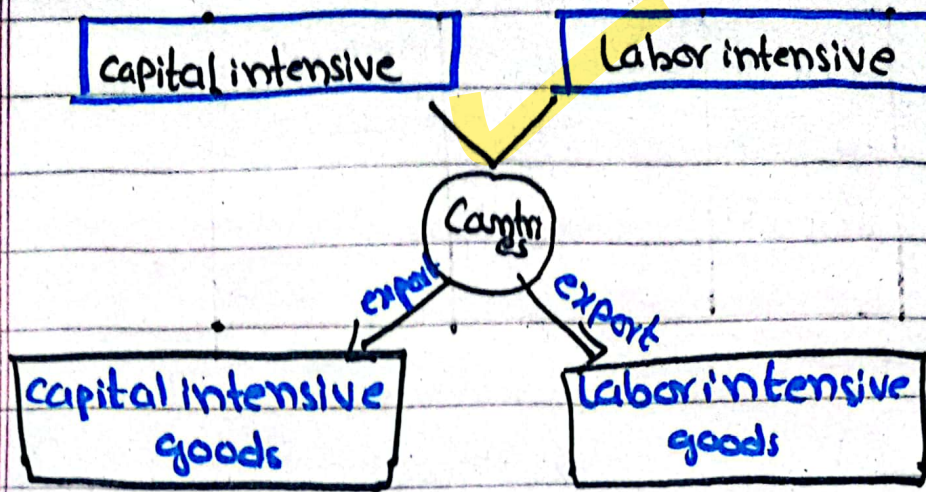
Country	1: ton Cotton	1: Laptop
Pakistan	0.75L	1.33Cotton
Japan	0.5L	2C

By taking into consideration opportunity cost, Pakistan should produce laptop and import cotton while Japan should specialize in cotton and imports laptop. So, in this way by finding out opportunity cost of production and comparing it with trading countries, Pakistan should prioritize the goods which it produces and exports.

## vi) Factor Endowment Theory

According to this theory, a country should produce those goods which utilizes that factors of production, which are abundant in the country.

So, ~~capital intensive goods are exported~~



## vii) Assumptions of the Theory

### 1) 2x2x2 Model

It assumes that there are two countries, producing two goods and by using two factors of production labor and capital.

2) One country must be capital rich and other must have factor endowment of labor.

### 3) No Transportation cost

It also assumes the lack of transportation cost between countries.

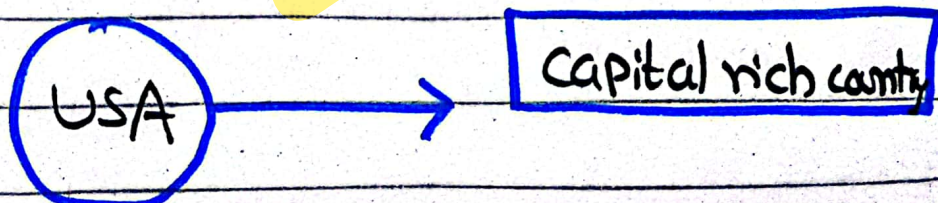
Remaining all assumptions are like comparative advantage theory.

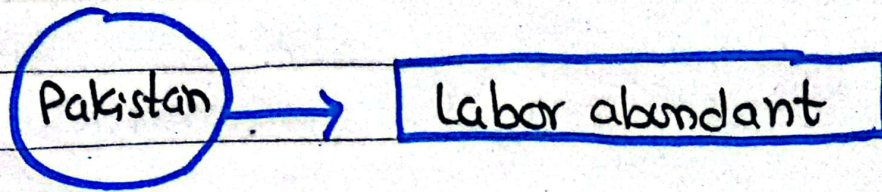
### viii) Factor Endowment Theory and Pakistan

As, Pakistan is a labor intensive country. It has a population of 24 crores, with a labor force of 71.74 million, according to the labor survey.

So, Pakistan can get benefit from the trade if it produces and exports those goods that are labor intensive in production while, import capital intensive goods due to capital scarcity.

### ix) Example of USA and Pakistan





So, Pakistan should exports goods like agricultural products, textile items, sports goods, services of human beings to the USA.

While, import machinery, electronic etc from USA because it will be cheap for Pakistan rather than producing domestically.

## Conclusion

In the era of globalization world has become interconnected through trade. By applying the international trade theories, different countries across the world can sustain their economic by boosting their trade. Likewise Pakistan can also <sup>get</sup> benefit from it.



Q. 7

## Introduction

Elasticity of demand is the core principle in the field of economics. It can be either own-price elasticity, cross-price and income elasticity. All of these have theoretical as well as empirical foundations. Moreover, own-price elasticity is linked with the total revenue that helps economists, businessmen etc in knowing the impact of elasticity on the total revenue in the economy.

### i) Own-Price Elasticity

The degree of the responsiveness of the quantity demanded or supply of a good to its price is known as own-price elasticity.

### ii) Theoretical Explanation

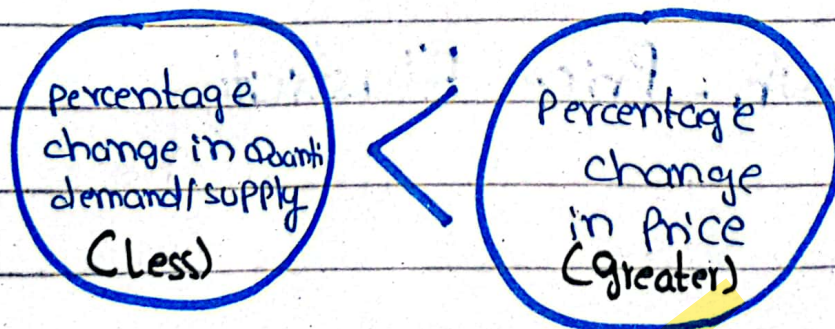
According to this type

of elasticity, it shows the change in quantity demanded or quantity supplied, when the price of a good changes.

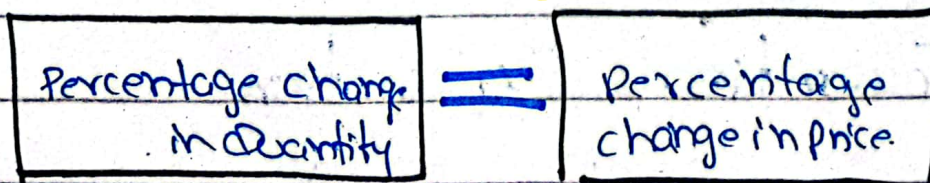
### iii) Highly Elastic Case

If the percentage change in quantity demanded or supplied of a good is greater than the percentage change in price it is called as highly elastic price elasticity.

### iv) Less Elastic Case



### v) Unitary Elastic Case



## v) Empirical Explanation

Formula =  $\frac{\frac{\Delta Q}{Q}}{\frac{\Delta P}{P}} \times 100$

$\frac{\Delta P}{P} \times 100$

Lets suppose  $\Delta Q = 20, Q = 10$   
 $\Delta P = 30, P = 15$

So

own price elasticity =  $\frac{20}{10} \times 100$

$\frac{30}{15} \times 100$

=  $\frac{2000}{200} = 1$

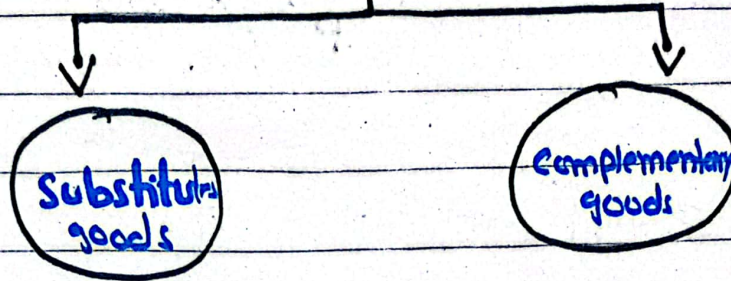
Own price Elasticity is 1 which depicts the case of unitary elastic.

## 2) Cross-Price Elasticity

According to cross-price elasticity, two goods are related in such a way that quantity demanded of one good changes, then the price of other good will rise/fall.

It has two cases.

## Cross Price Elasticity



### i) Substitute Goods

In case of substitute goods like Pepsi and Coca-cola, when price of Pepsi increases, it causes increase in the quantity demanded of Coca-cola. Here, cross-price elasticity shows positive relation between substitute goods.

### ii) Complementary Goods

Complementary goods are related in such a way that when price of say petrol increases then demand of cars decreases. Because, both the goods

are used together.

### iii) Empirical Explanation

$$\text{Cross-elasticity} = \frac{\frac{\Delta Q_X}{Q_X} \times 100}{\frac{\Delta P_Y}{P_Y} \times 100}$$

X and Y are two goods here.

$$\text{if } \Delta Q_X = 100 \quad Q_X = 250$$

$$\Delta P_Y = 20, \quad P_Y = 5$$

$$= \frac{\frac{100}{250} \times 100}{\frac{20}{5} \times 100}$$

$$= \frac{200}{400}$$

$$\text{Cross-price elasticity} = 0.5$$

0.5 depicts both goods are X and Y are substitutes and their cross-elasticity is 0.5.

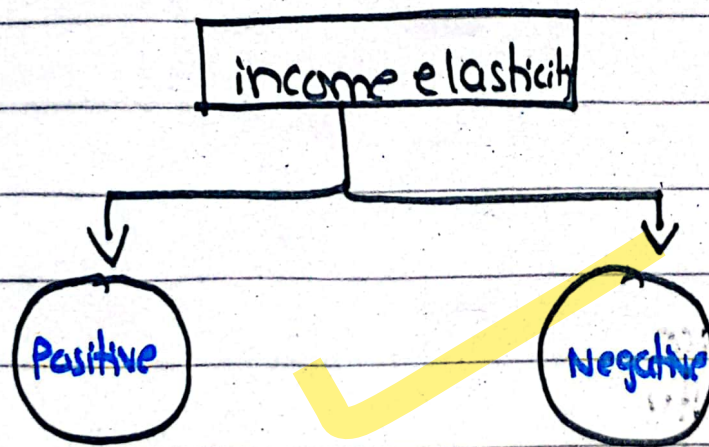
### 3) Income Elasticity

Income elasticity manifests that degree of responsiveness to the quantity

of goods demanded or supplied with respect to the change in income level.

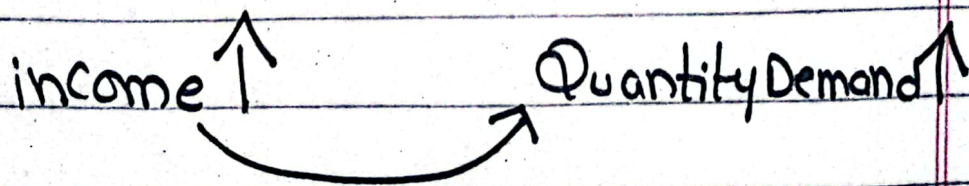
## i) Theoretical Explanation

Income elasticity of demand varies from 0 to 1. Higher the value of income elasticity, higher would be chances of a luxury good case.



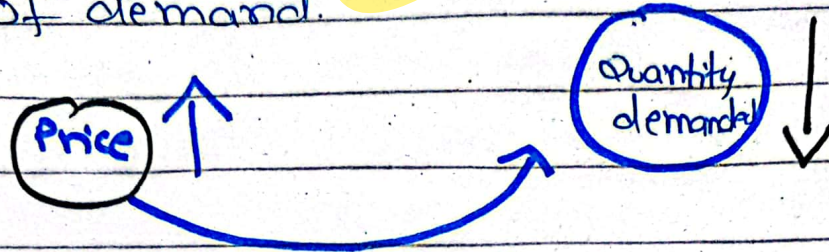
## ii) Positive Income Elasticity

Normal goods have positive income elasticity.



### iii) Negative Income Elasticity

inferior goods typically have negative income elasticity of demand.



### iv) Theoretical Explanation

Theoretically, it can be calculated through following formula:

$$\text{Income elasticity} = \frac{\frac{\Delta Q}{Q}}{\frac{\Delta Y}{Y}}$$

### 4) Relationship Between Own-Price Elasticity and Total revenue

There are three different cases which manifest the relationship between elasticity

and total revenue.

### i) Elastic - own Price Elasticity

In this case, the relation is negative. As price increase, it results fall in total revenue.

Price	Quantity	TR
1	10	Rs. 10
2	4	Rs. 8

$\uparrow$  Price  $\downarrow$  TR

### ii) In-Elastic Case

In case of inelastic own price elasticity, the relation between price and total revenue will be positive and makes overall relation between own price elasticity and Total revenue positively related.



Price	Quantity	TR
10	5	50 Rs.
20	3	Rs. 60

$P \uparrow TR \uparrow$

### iii) Unitary Elastic case

In this case, the relation between price and total revenue will remain same irrespective of change in price.

Price	Quantity demand	TR
1	10	Rs. 10
2	5	Rs. 10

$P \uparrow TR = 10$

### Conclusion

Income elasticity, own price and cross-price elasticities express important concepts in the field of economics. Moreover, the relation between Total revenue

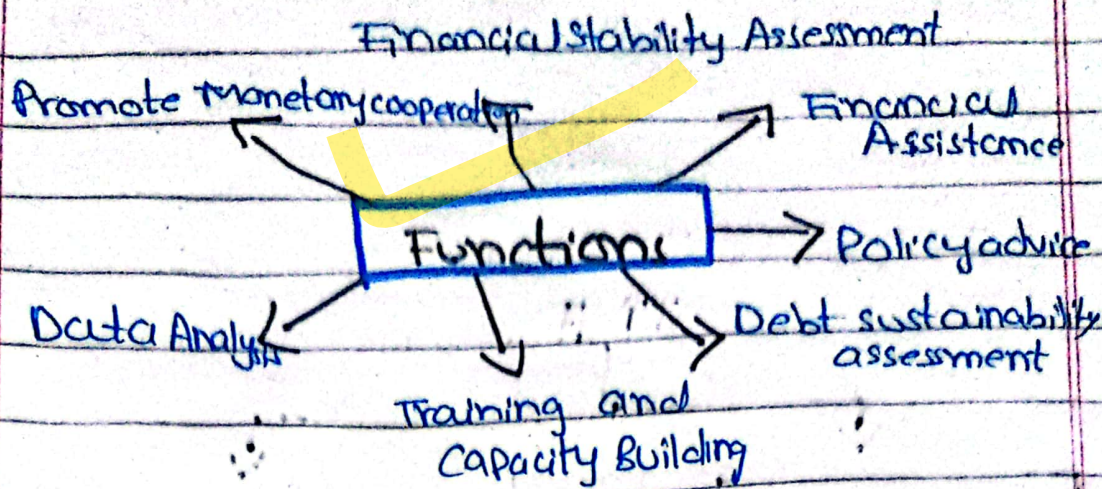
and own price elasticity varies with the extent of elasticity in different goods.

Q-5

## Introduction

International Monetary Fund is one of the leading world's financial institutions. It is the offset of the Bretton Wood system. IMF is a source of financial assistance for the countries grappling with the financial crunch especially due to their balance of payment deficits. It adopts different practices for extending its economic support. Moreover, it lends to the developing countries for combating money laundering and terror financing. IMF extends loans to the countries along with the conditionalities as an assurance of pay-back.

## 1) Functions of the IMF



## 1) Financial Assistance

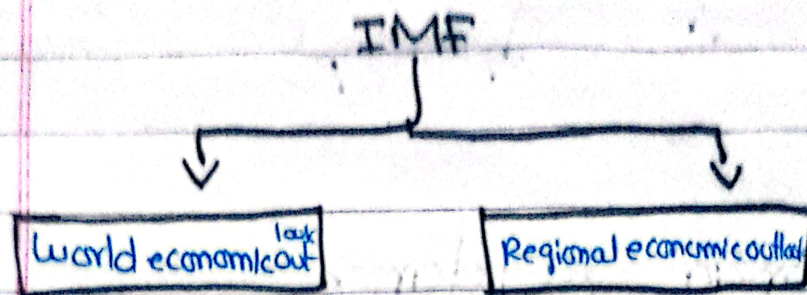
one of the most important functions of the IMF is to provide financial assistance especially to developing countries. It provides loans to developing countries under:

- i) Debt relief initiative
- ii) Poverty and reduced growth initiative

In 2024, IMF has approved the extended fund facility program of worth \$7bn for Pakistan to sustain its cripplly economy.

## ii) Policy Advice

IMF monitors the economic plight of the world. It provides policy advice to the countries for improving their economies. IMF issue



It helps countries to draw insights and re-rail their derailed economies on tight track.

## iii) Training And Capacity Building

IMF also provides training and capacity building to the member countries. It enables such countries to cope with economic problems.

Japan is the major contributor in IMF in terms of the provision of training, capacity building of developing countries.

#### iv) Debt Sustainability Assessment

IMF conducts the assessment of the debt situation of its member countries. It helps IMF in extending loans with the assurance of easily re-back of its original amount. 2023, IMF arranged Global Sovereign Debt Conference to discuss and exchange ideas among member <sup>countries</sup> regarding debt situation.

#### v) Promote Monetary Cooperation

IMF is a platform that act as a bridge between developing and developed countries. It brings them close and enable them to collaborate on economic fronts.

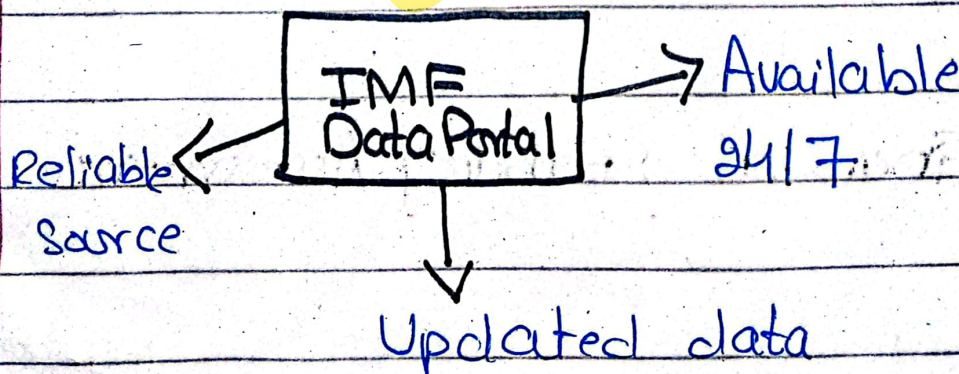
#### vi) Financial Stability Assessment

Another important function of IMF is the assessment of financial situation of

developed <sup>and developing</sup> countries which help them to cater the anticipated economic problems effectively. In 2024, IMF conducted the financial stability assessment of 8 countries including China, India, Indonesia etc.

### vii) Data Analysis and Regulation

IMF collects the data about the economic indicators of its member countries. It conducts analysis of the data and make projections about their economies. IMF is a best platform for collecting data about the global economies.



## 2) Practices IMF Adopt to Assist Countries

Extended Fund Facility

Stand by Agreement Facility

Rapid Fund Facility

### i) Extended Fund Facility

Under this practice of financial assistance, IMF extends loans for about 3 years and can be extended up to 4 years in some situations. It is applicable in those scenarios when any country needs more time to structurally reform its economy.

In 2024, Pakistan has secured extended fund facility program of \$7bn.

## ii) Stand-by Agreement

In this case, loan is extended for upto 2 years. It is accompanied with high interest rate and strict conditionalities.

In year 2023, Pakistan got stand by agreement. last, tranche of \$1.1bn from IMF.

## iii) Rapid Fund Facility

Under this mode of finance, IMF lend loan to the countries for a time period of less than one year. It is often extended to those countries who face any sudden economic shock, natural disaster, recession etc. So, they need immediate assistance to cater the economic ups and downs.

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AI 3) IMF Lending to Developing Countries with reference to Financial Action Task Force Status

IMF provides financial assistance to the countries who are grapple economically due to widespread smuggling and terror financing and money laundering. It helps through extending loans which can help these countries to combat the menace of the sanctions imposed by Financial Action Task force. Through IMF assistance, many countries in the world who were in black and grey lists of the FATF, comes out from these lists and entered in white lists which acts as a clean sheet for the country and helps it to revive its economic ties.

with the world

2022 marked as the year when Pakistan was taken out of the grey list of FATF. Along with different factors, IMF assistance in the past has also assisted Pakistan to get rid of FATF clutches.

## Conclusion

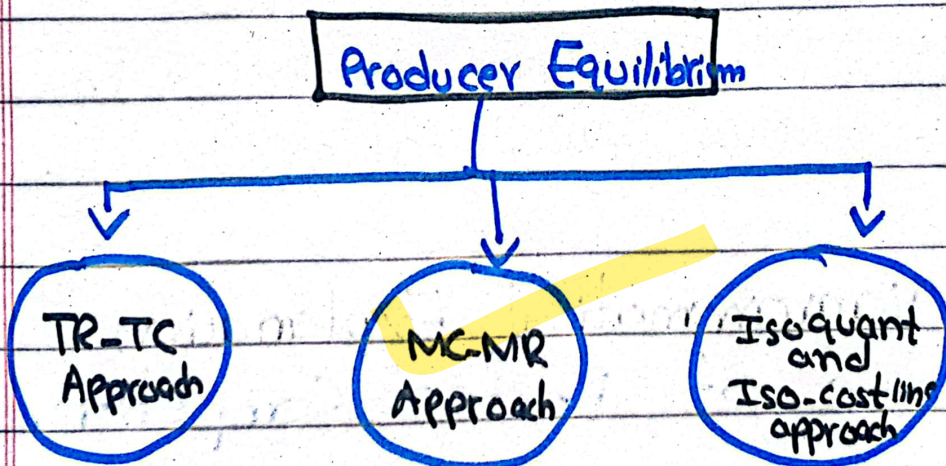
IMF is assisting the countries to cater their economic vulnerabilities. It adopts different practices for extending financial loans to the financially crunch countries. Moreover, it also lends developing countries with reference to the FATF status.

Q 4

## Introduction

Producer equilibrium is a situation in which producer produces maximum quantity of output with minimum resources. There are different approaches of finding the producer equilibrium which differ from one another.

### 1) Approaches of Producer Equilibrium



#### i) TR-TC Approach

According to the total revenue and total cost approach producer will be in equilibrium at that point where difference between the

total revenue is and: if the  
the total cost is maximum.

## ii) Total Revenue

The total amount of money earned after selling the total quantities of goods is called total revenue.

## iii) Formula

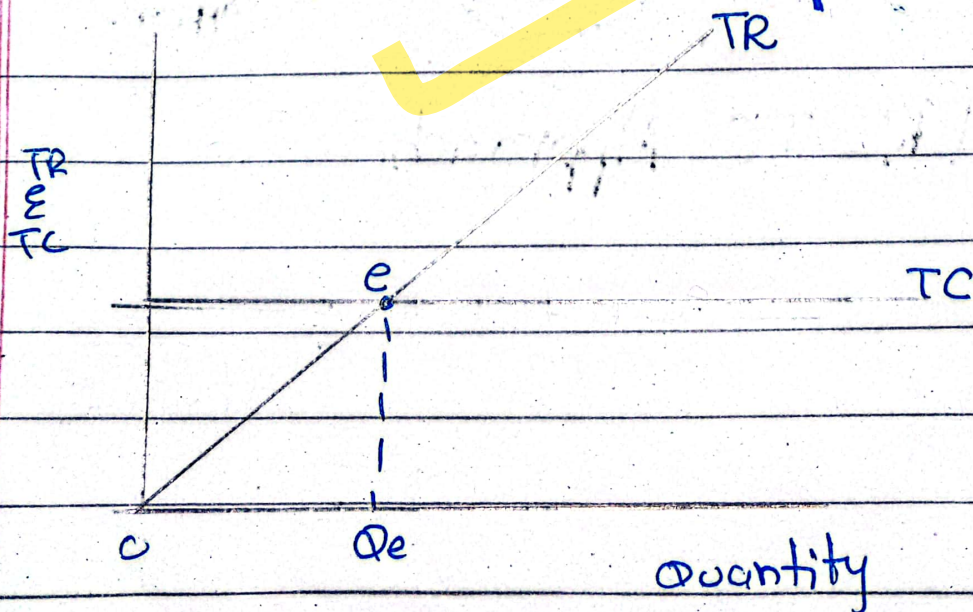
$$TR = \text{Price} \times \text{Quantity of good}$$

## iv) Total Cost

Total cost reflects the cost incurred in producing the total quantities of goods.

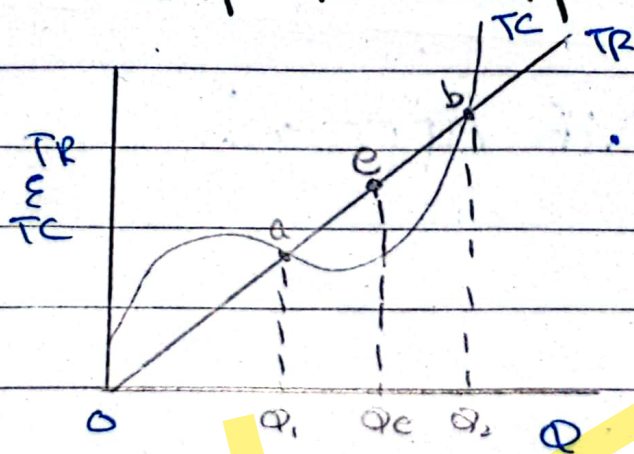
## v) Diagrammatical Explanation

### 1) Case of Perfect Competition



In case of perfect competition, where there are large number of buyers and sellers, equilibrium exist at point  $e$  where total revenue and total cost curves are equal. So,  $Q_e$  is the equilibrium price.

## ii) TR-TC Approach in case of Imperfect Competition



In case of imperfect competition, the producer is in equilibrium at point 'e' where the difference between total revenue and total cost is maximum. While, at point 'a' and 'b', there exist no profit and no loss situation for the

the producer.

### Example

Let us suppose that at point e, TR is Rs. 100 while total cost is Rs. 80. So, here

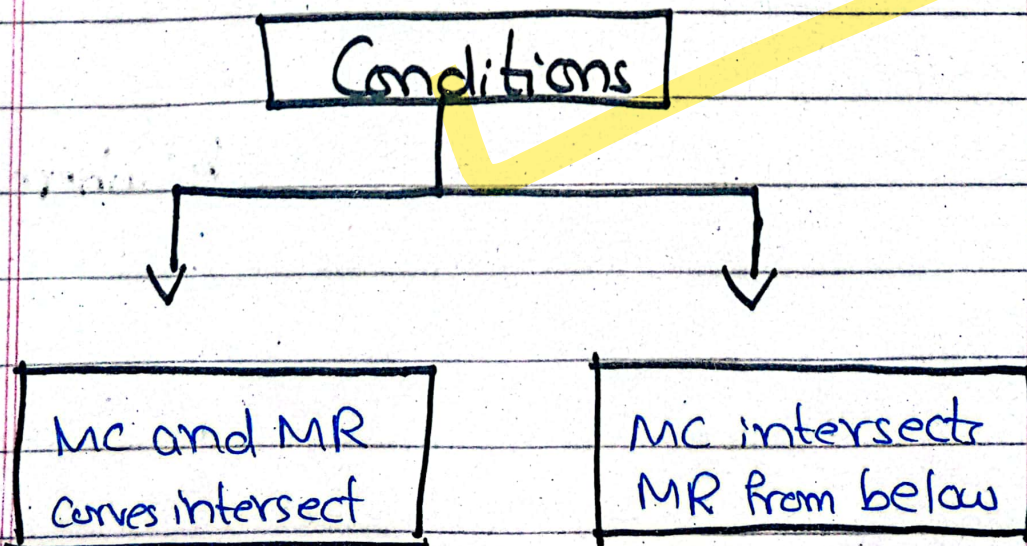
$$\begin{aligned}\text{Profit} &= \text{TR} - \text{TC} \\ &= 100 - 80 \\ &= 20\end{aligned}$$

So, profit is maximum at e which is 20.

## 2) MC-MR Approach

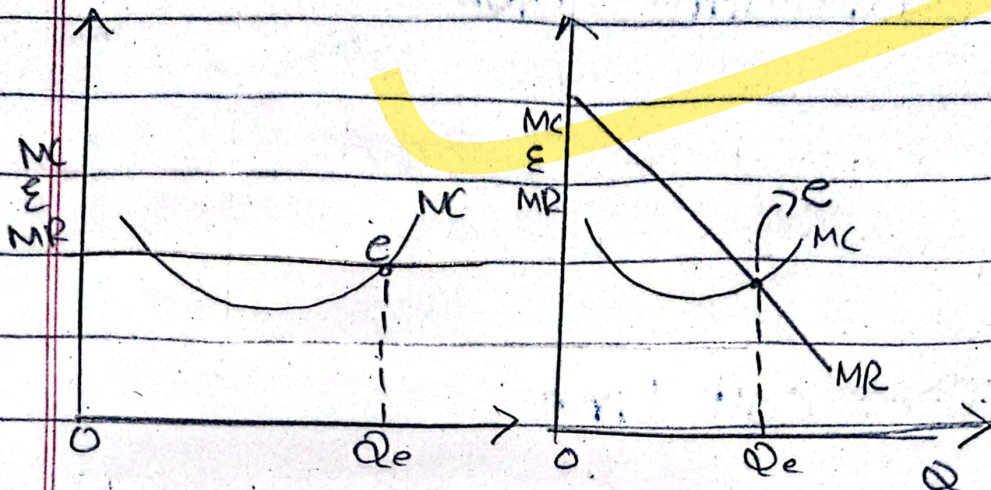
According to this approach, producer will be in equilibrium when two following conditions are satisfied.

i)



Here, MC is the marginal cost while MR is marginal revenue.

## ii) Diagram



Perfect Competition

Imperfect Competition

Point e depicts the equilibrium points. This approach differs from TR and TC approach because it involves marginal cost and marginal revenue for finding the equilibrium point.

## 3) Iso-Quant And Iso-Cost Line Approach

According to the approach producer equilibrium lies at

the point where the  
curve intersects the minimum  
possible iso-cost line.

## i) Iso-Quant Curve

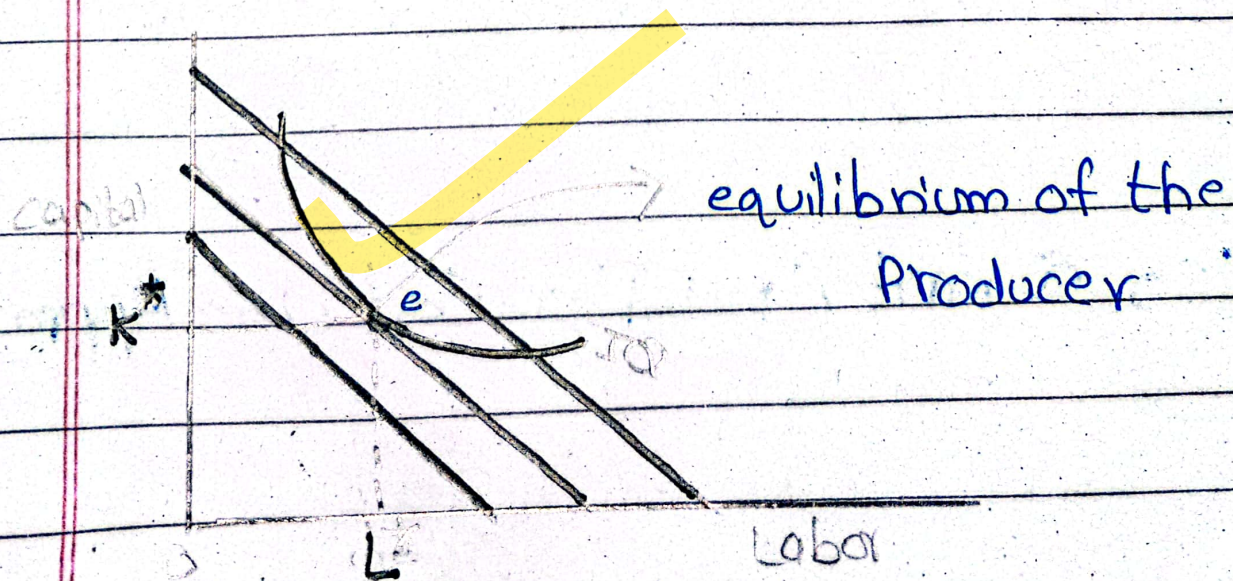
It shows different combinations of factors of production that yields same level of total output.

## ii) Iso-cost Line

It depicts that different combinations of inputs for the production of goods costs the same total amount.

The slope of Iso-cost curve is the price ratio of inputs.

Diagram





At point e,  
slope of TQ curve = slope of Iso cost line

$$\frac{MP_L}{MP_K} = -\frac{w}{r}$$

This approach is different from total revenue and total cost approach because it involves the use of iso-quant curve and iso-cost line for determining producer equilibrium.

## Conclusion

Producer equilibrium can be found by adopting different approaches, which yield highest level of output at minimum possible cost.