



Economics Graph Revision by MV Sir

Special class

Mohnish Vora • Dec 2, 2020



Mohnish Vora (MV Sir)

- ✓ CA, CFA L1, B. Com
- ✓ Faculty for **Business Economics & BCK**
- ✓ 2+ years of Teaching Experience
- ✓ Have worked in the fields of Finance, Audit & Taxation
- ✓ 10th & 12th Merit Student (CBSE)
- ✓ National Level Roller Hockey Player





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GRAPH REVISION

2 Dec

BUSINESS ECONOMICS
WITH
CA MOHNISH VORA (MV SIR)



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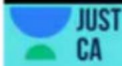
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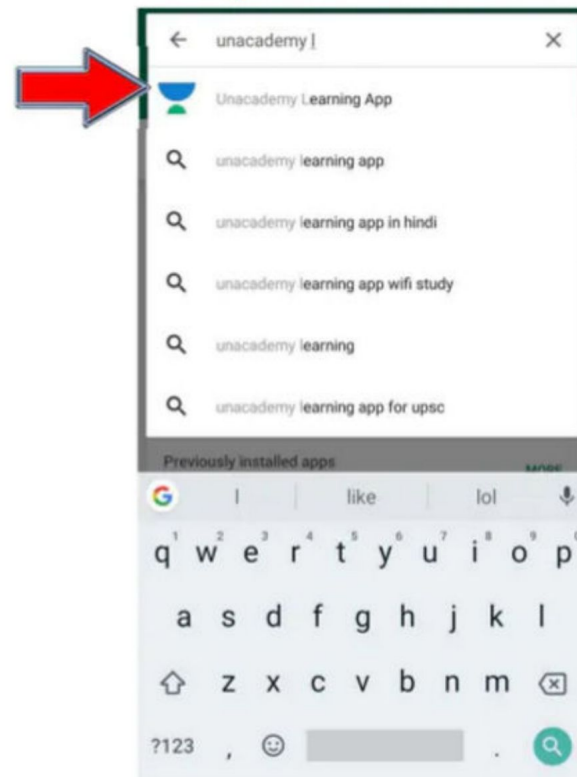
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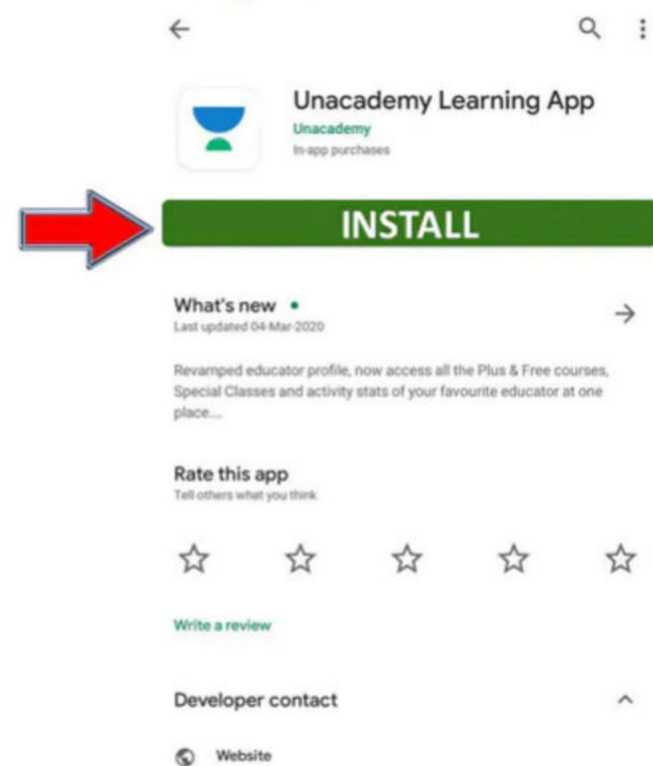
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Manasa Kondru • 23 days ago

Really thank u from bottom of my whole heart for Ur effortts also sir making notes in a effective way Gyan Dhara is really fab n recalling all the revision simply superb 🙌👍 sir u desrve this sir



Gomsil Sehgal • 1 month ago

Best faculty on unacademy sirr u r great ur. Notes are very helpful for study and attractive notes esay to learn ❤️❤️❤️



Manish 1 month ago

Mv sir is the god of economics .economics is intresting because mv sir teach economics . I never like economics but mv sir makes the economics very interesting and sir I have no words regarding you



Raviya Silhi • 1 month ago

Thnq so very much sir for providing us amazing nd attractive notes...you r the best teacher of economics...mtlb sirr feel aa jata haii 😊 "MV SIR" you r such aa gr8 personality 🙌❤️



Ganga Gayathri • 1 month ago

you are an amazing teacher



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Thanks 🙌🙌 for that colourful notes 📄📖 Making concepts CHILTU 😊😄 and for that revision lectures too. 🙏🙏👍👍👍👍
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GRAPH REVISION

Chp 2- Theory of Demand & Supply

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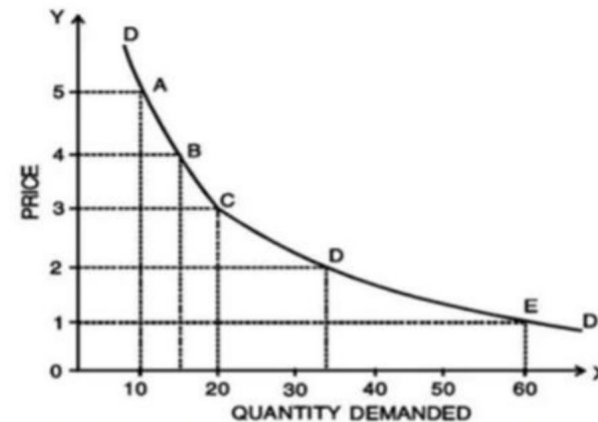
DEMAND SCHEDULE

A demand schedule is a **table** which presents the **different prices** of a good and the **corresponding quantity demanded per unit** of time.

| | Price (Rs) | Qty Demanded (in units) |
|---|------------|-------------------------|
| A | 5 | 10 |
| B | 4 | 15 |
| C | 3 | 20 |
| D | 2 | 35 |
| E | 1 | 60 |

DEMAND CURVE

A demand curve is a **graphical presentation** of the **demand schedule**. It is obtained by plotting **Price on Y-axis** & **Quantity Demanded on X-axis**.



- The market demand, is the **total quantity** that all consumers of a commodity are **willing to buy per unit of time** at a given **price**, all other things remaining constant.
- A market demand curve is a **graphical presentation** of the **market demand schedule**. It is obtained by plotting Price on Y-axis & Total Market Demanded on X-axis.

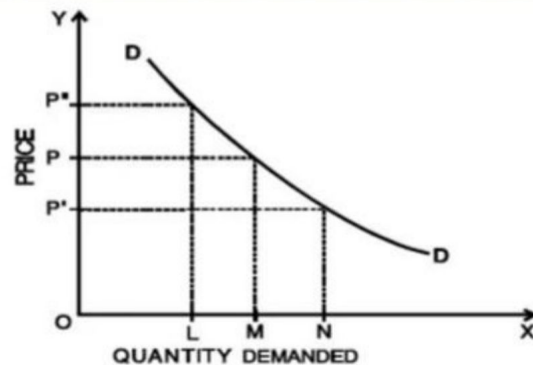
MOVEMENTS ON THE DEMAND CURVE

➤ Expansion of Demand

When the **demand** of a good **increase** as a result of an **decrease in its price**, we say that there is an "increase in the quantity demanded" or there is a "**downward movement on the demand curve**" or "expansion of demand".

➤ Contraction of Demand

When the **demand** of a good **decrease** as a result of an **increase in its price**, we say that there is an "decrease in the quantity demanded" or there is a "**upward movement on the demand curve**" or "contraction of demand".



MV Sir

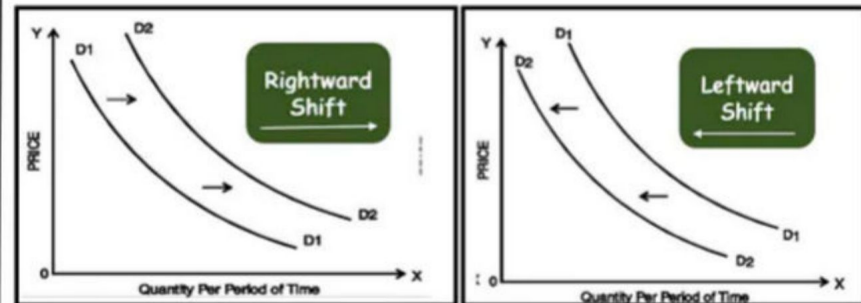
SHIFTS IN THE DEMAND CURVE

➤ Increase in Demand

When the demand curve bodily **shifts towards the right** as a result of a **change in one of the factors** that influence the quantity demanded **other than the commodity's own price**, we say there is an increase in demand.

➤ Decrease in Demand

When factors other than price cause the **demand curve to shift to the left**, we call it decrease in demand.



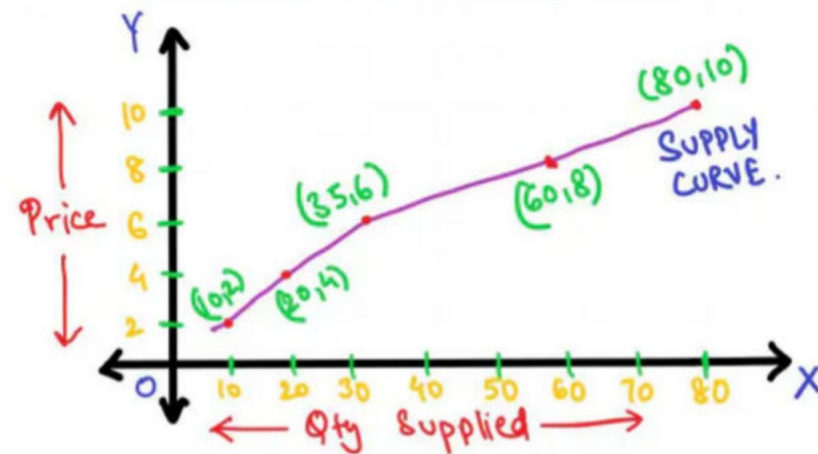
SUPPLY SCHEDULE

A supply schedule is the **tabular presentation** of the **law of supply**. It shows the different prices of a commodity and the corresponding quantities that suppliers are willing to offer for sale.

| | Price (Rs) | Qty Supplied (in units) |
|---|------------|-------------------------|
| A | 2 | 10 |
| B | 4 | 20 |
| C | 6 | 35 |
| D | 8 | 60 |
| E | 10 | 80 |

SUPPLY CURVE

A supply curve is the **graphical presentation of supply schedule**. Here **price** is plotted on the **Y-axis** & **quantity supplied** on the **X-axis**.



- The **market supply**, like market demand, is the sum of supplies of a commodity made by all individual firms or their supply agencies.
- The **market supply curve** for 'X' can be obtained by adding horizontally the supply curves of various firms.

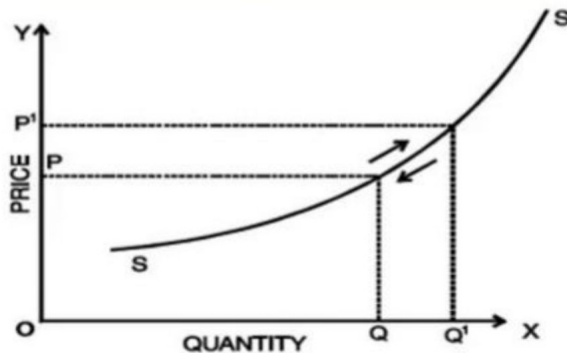
MOVEMENTS ON THE SUPPLY CURVE

➤ Expansion of Supply

When the **supply** of a good **increase** as a result of an **increase in its price**, we say that there is an "increase in the quantity supplied" or there is a "**upward movement on the supply curve**" or "expansion of supply".

➤ Contraction of Supply

When the **supply** of a good **decrease** as a result of an **decrease in its price**, we say that there is an "decrease in the quantity supplied" or there is a "**downward movement on the supply curve**" or "contraction of supply".



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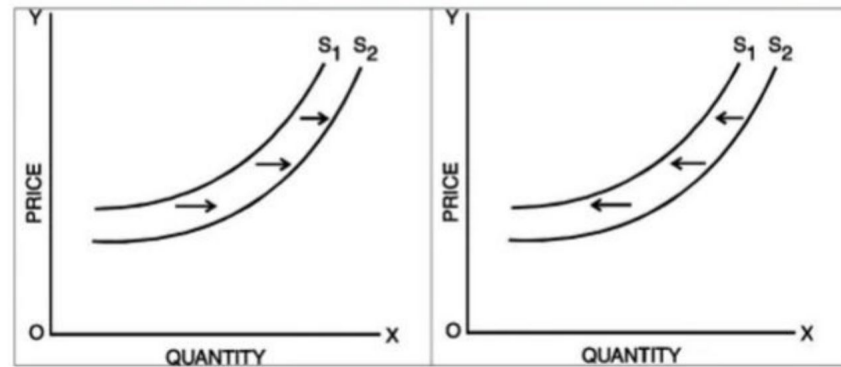
SHIFTS IN THE SUPPLY CURVE

➤ Increase in Supply

When the supply curve bodily **shifts towards the right** as a result of a **change in one of the factors** that influence the quantity supplied **other than** the commodity's **own price**, we say there is an increase in supply.

➤ Decrease in Supply

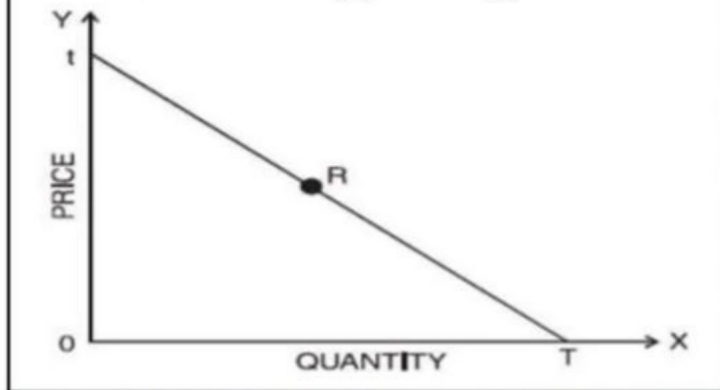
When these factors cause the **supply curve to shift to the left**, we call it decrease in supply.



GEOMETRIC METHOD OF CALCULATING POINT ELASTICITY

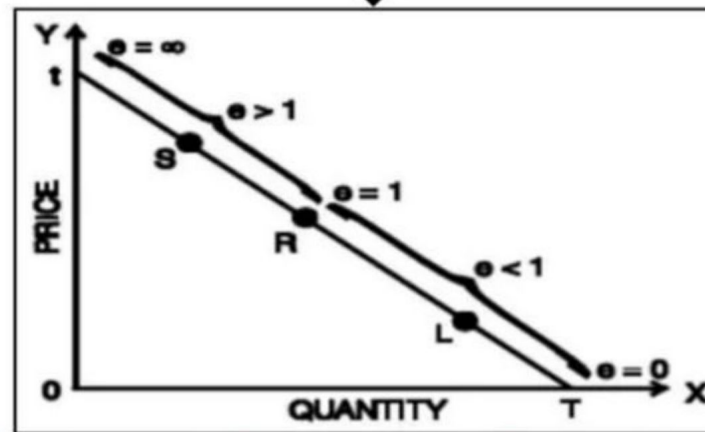
- It is to be noted that elasticity is different at different points on the same demand curve. Given a straight line demand curve "tT", point elasticity at any point say R can be found by using the formula-

$$\frac{RT}{Rt} = \frac{\text{Lower Segment}}{\text{Upper Segment}}$$



Elasticity at a point on the demand curve

Using this formula we can get elasticity at various points on the demand curve



Elasticity at different points on the demand curve

Thus, we see that as we move from T towards t, elasticity goes on increasing. At the mid-point it is equal to one, at point t it is infinity and at T it is zero.

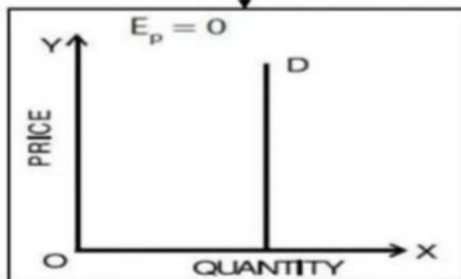
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INTERPRETATION OF THE NUMERICAL VALUES OF ELASTICITY OF DEMAND

The numerical value of elasticity of demand can assume any value **between zero and infinity**.

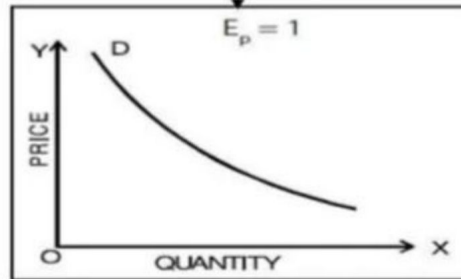
1 Elasticity of Demand = 0

If there is no change at all in the quantity demanded when price changes i.e. when the **quantity demanded does not respond at all to a price change**.



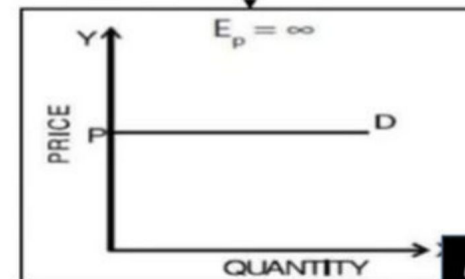
2 Elasticity of Demand = 1

Elasticity is one, or unitary, if the **percentage change in quantity demanded is equal to the percentage change in price**.



3 Elasticity of Demand = ∞

- Elasticity is infinite, when a **'small price reduction raises the demand from zero to infinity**.
- If there is a slight increase in price, they would not buy anything from the particular seller.
- This type of demand curve is found in a **perfectly competitive market**.

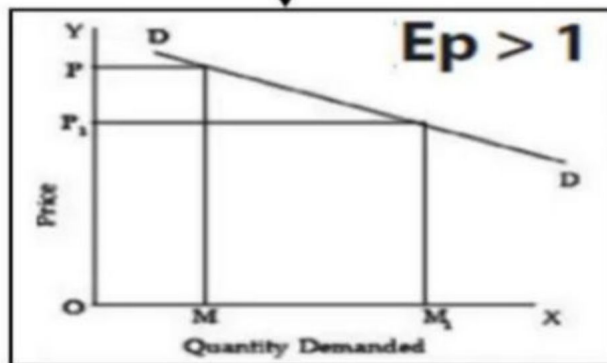


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Elasticity of Demand > 1

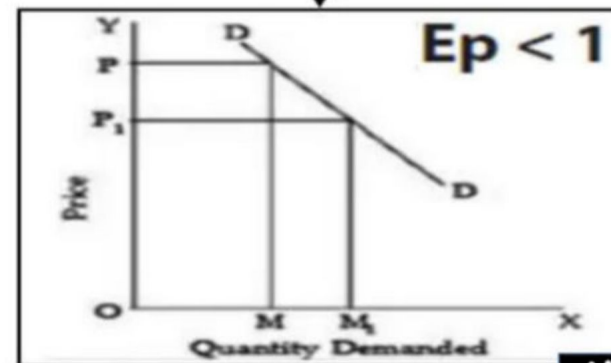
- Elasticity is greater than one when the percentage change in quantity demanded is greater than the percentage change in price.
- In such a case, demand is said to be **elastic**.



5

Elasticity of Demand < 1

- Elasticity is less than one when the percentage change in quantity demanded is less than the percentage change in price.
- In such a case, demand is said to be **inelastic**.



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C

CROSS ELASTICITY OF DEMAND

- The **demand** for a particular commodity may **change due to changes in the prices of related goods**. These related goods may be either **complementary** goods or **substitute** goods. This type of relationship is studied under '**Cross Demand**'.
- Cross demand refers to the **quantities** of a commodity or service which will be **purchased with reference to changes in price**, not of that particular commodity, but **of other inter-related commodities**, other things remaining the same.
- It may be defined as the quantities of a commodity that consumers buy per unit of time, at different prices of a 'related article', 'other things remaining the same'. The assumption '**other things remaining the same**' means that the income of the consumer and also the price of the commodity in question will remain constant.

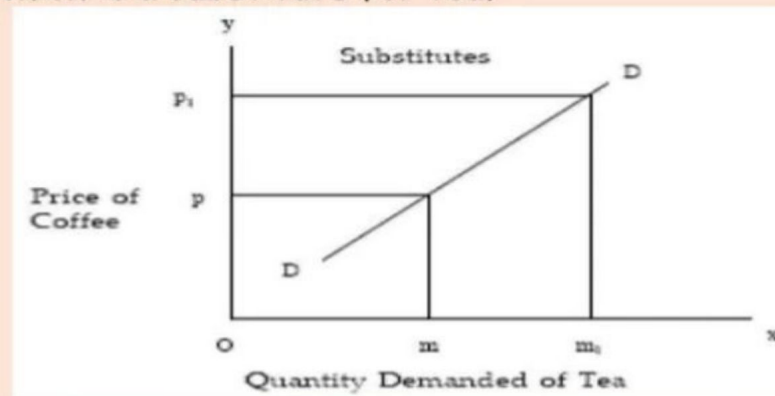
Substitute Products

Complementary Products

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Substitute Products

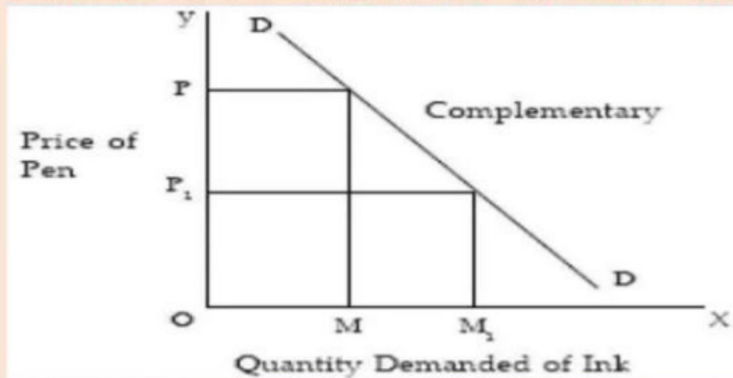
- In the case of substitute commodities, the cross demand curve **slopes upwards** (i.e. positively) showing that more quantities of a commodity, will be demanded whenever there is a rise in the price of a substitute commodity.
- In below figure, the quantity demanded of **tea** is given on the **X axis**. **Y axis** represents the **price of coffee** which is a substitute for tea.



- When the **price of coffee increases**, due to the operation of the law of demand, the demand for coffee falls. The consumers will **substitute tea in the place of coffee**. The **price of tea is assumed to be constant**. Therefore, whenever there is an increase in the price of one commodity, the demand for the substitute commodity will increase.

Complimentary Products

- In the case of complementary goods, as shown in the figure below, a **change in the price of a good** will have an **opposite reaction** on the **demand for the other commodity** which is closely related or complementary.



- For instance, an **increase in demand for pen** will necessarily **increase the demand for ink**. The same is the case with complementary goods such as bread and butter; car and petrol electricity and electrical gadgets etc.
- Whenever there is a **fall in the demand for fountain pens** due to a rise in prices of fountain pens, the **demand for ink will fall**, not because the price of ink has gone up, but because the price of fountain pen has gone up. So, we find that there is an **inverse relationship** between price of a commodity and the demand for its complementary good (**other things remaining the same**).

CROSS ELASTICITY OF DEMAND

- A change in the demand for one good in response to a change in the price of another good represents cross elasticity of demand of the former good for the latter good. Here, we consider the effect of changes in relative prices within a market on the pattern of demand.

$$\text{Cross Elasticity} = E_c = \frac{\% \text{ Change in Quantity Demanded of X}}{\% \text{ Change in Price of Y}}$$

$$E_c = \frac{\Delta Q_x}{Q_x} \times \frac{P_y}{\Delta P_y} = \frac{\Delta Q_x}{\Delta P_y} \times \frac{P_y}{Q_x}$$

Where, E_c = Cross Elasticity

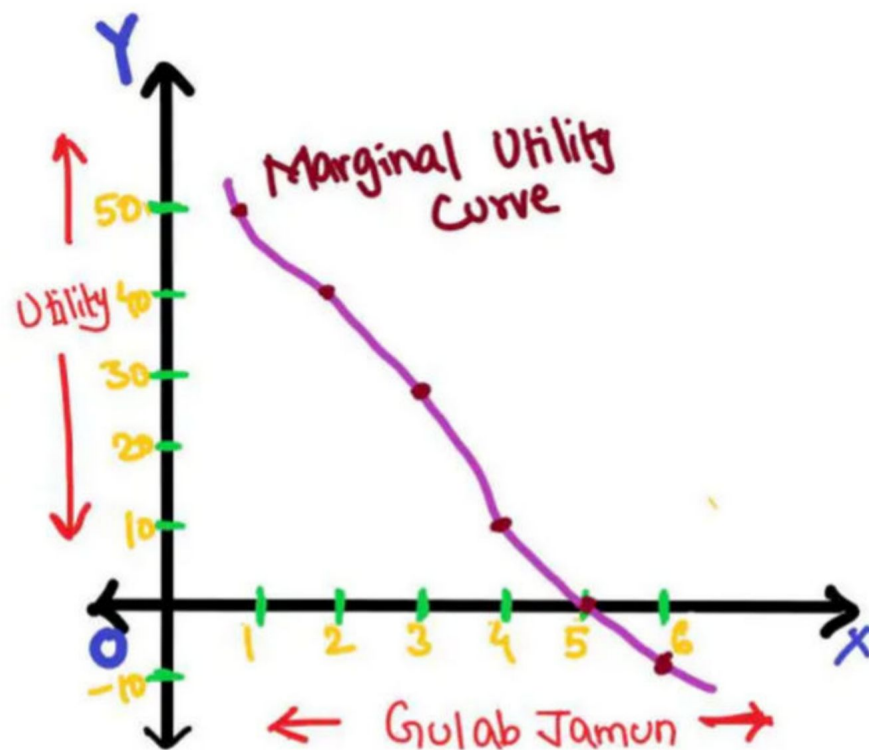
Q_x = Original Quantity of Commodity X

P_y = Original Price of Commodity Y

Δ = a very small change

Marginal Utility Curve

| Gulab Jamun | Marginal Utility (MU) (in Utils) | Total Utility (TU) (in Utils) |
|-------------|----------------------------------|-------------------------------|
| 1st Piece | 50 | 50 |
| 2nd Piece | 40 | 90 |
| 3rd Piece | 28 | 118 |
| 4th Piece | 10 | 128 |
| 5th Piece | 0 | 128 |
| 6th Piece | -5 | 123 |



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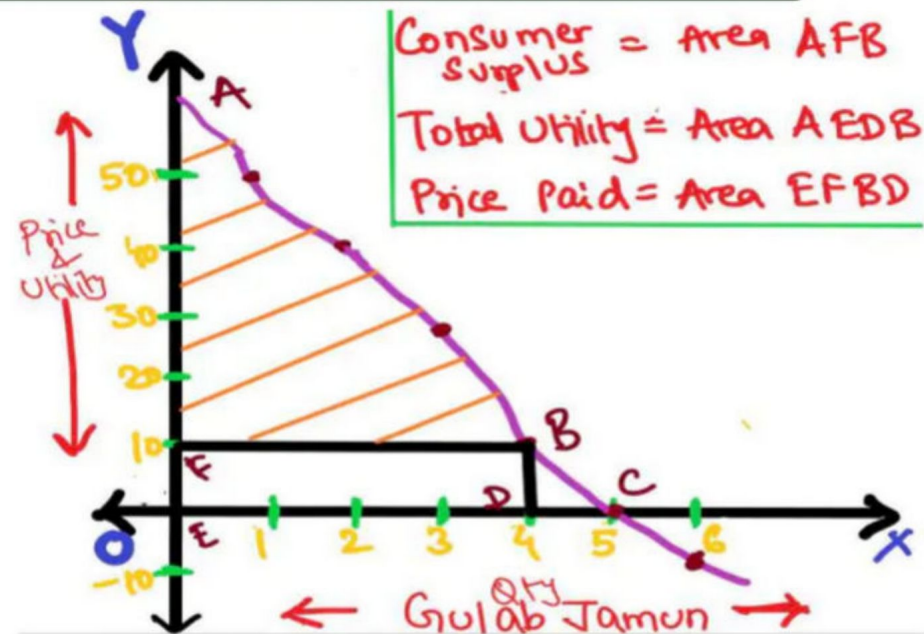
Consumer Surplus

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Alfred Marshall defined the concept of consumer's surplus as the "excess of the price which a consumer would be willing to pay rather than go without a thing over that which he actually does pay is called consumer's surplus."

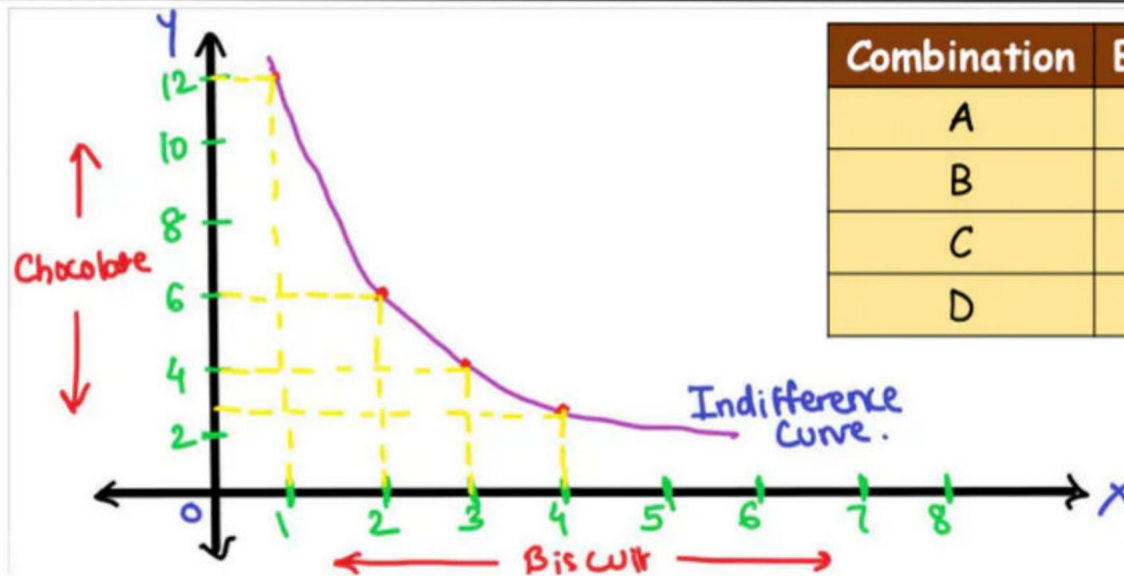
Consumer's Surplus = what a consumer is ready to pay - what he actually pays.

| Gulab Jamun | Marginal Utility (in Utils) | Price (Rs) | Consumer Surplus |
|-----------------------|-----------------------------|------------|------------------|
| 1 st Piece | 50 | 10 | 40 |
| 2 nd Piece | 40 | 10 | 30 |
| 3 rd Piece | 28 | 10 | 18 |
| 4 th Piece | 10 | 10 | 0 |
| 5 th Piece | 0 | 10 | - |
| 6 th Piece | -5 | 10 | - |



INDIFFERENCE CURVE

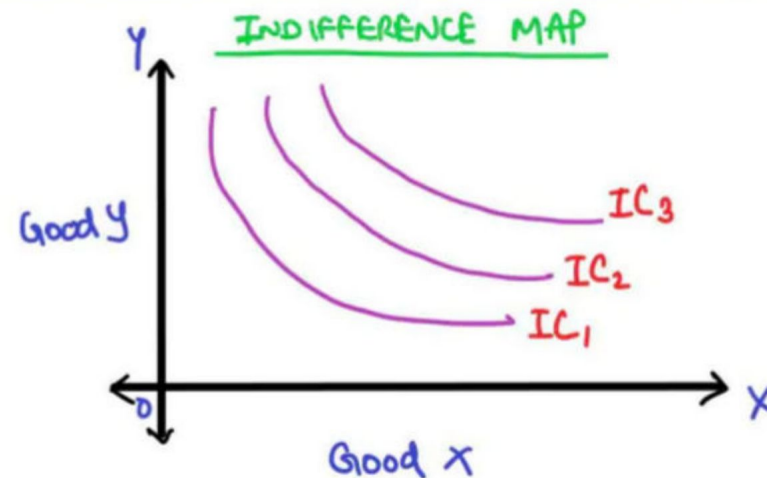
- An indifference curve is a curve which represents all those combinations of **two goods** which give same satisfaction to the consumer.
- Since **all the combinations on an indifference curve** give **equal satisfaction** to the consumer, the consumer is **indifferent** among them.
- If a consumer **equally prefers two product bundles**, then the consumer is **indifferent** between the two bundles. An Indifference curve is also called **iso- utility curve** or **equal utility curve**.



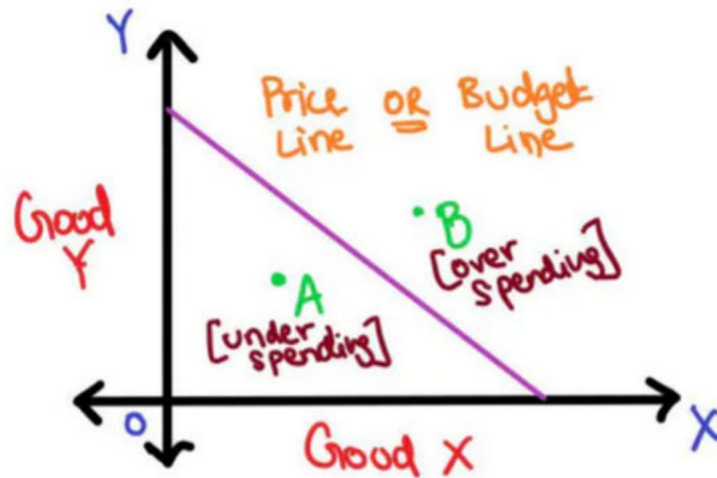
| Combination | Biscuit | Chocolate | MRS |
|-------------|---------|-----------|-----|
| A | 1 | 12 | |
| B | 2 | 6 | 6 |
| C | 3 | 4 | 2 |
| D | 4 | 3 | 1 |

INDIFFERENCE MAP

- An Indifference map represents a **collection of many indifference curves** where **each curve represents a certain level of satisfaction**. In short, a set of indifference curves is called an indifference map.
- An indifference map **depicts the complete picture of consumer's tastes** and preferences.
- It should be noted that while the consumer is indifferent among the combinations lying on the same indifference curve, he certainly **prefers the combinations on the higher indifference curve** to the combinations lying on a lower indifference curve because a **higher indifference curve signifies a higher level of satisfaction**.

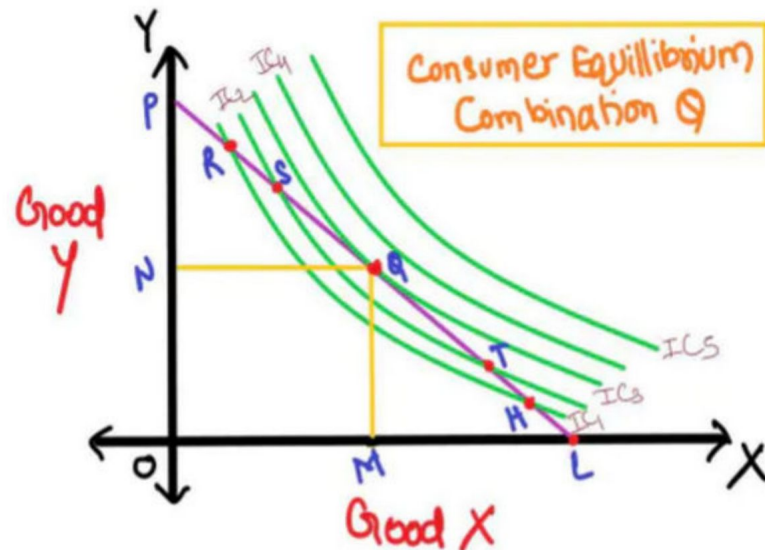


BUDGET LINE



- The budget constraint can be explained by the budget line or price line.
- A **budget line** shows all those **combinations of two goods** which the **consumer can buy spending his given money income** on the two goods at their given prices.
- **All those combinations** which are **within the reach** of the consumer (assuming that he **spends all** his money income) will **lie on the budget line**.
- It should be noted that any point **outside** the given price line, say **B**, will be **beyond the reach** of the consumer and any combination lying **within** the line, say **A**, shows **under spending** by the consumer.
- This **slope** of budget line is equal to 'Price Ratio' of two goods. i.e. P_x / P_y

CONSUMER'S EQUILLIBRIUM



- IC1, IC2, IC3, IC4 and IC5 are shown together with budget line PL for good X and good Y. **Every combination on the budget line PL costs the same.** Thus combinations R, S, Q, T and H cost the same to the consumer.
- The consumer's aim is to maximise his satisfaction and for this, he will **try to reach the highest indifference curve**. Since there is a **budget constraint**, he will be **forced to remain on the given budget line**, that is he will have to choose combinations from among only those which lie on the given price line.
- **Combination Q** is the **best choice** because this combination lies not only **on his budget line** but also **puts him on the highest possible indifference curve** i.e., IC3. The consumer can very well wish to reach IC4 or IC5, but these indifference curves are beyond his reach given his money income. Thus, the consumer will be at equilibrium at point Q on IC3.
- We notice that at this point, his **budget line PL is tangent to the indifference curve IC3**. In this equilibrium position (at Q), the consumer will buy OM of X and ON of Y.

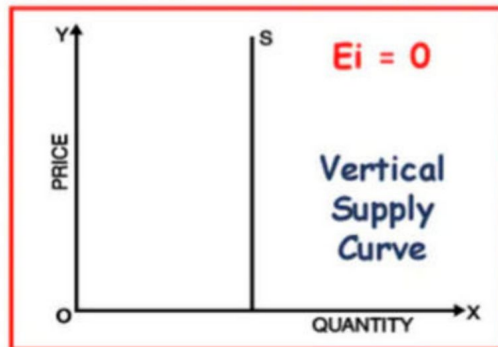
TYPES OF ELASTICITY OF SUPPLY

MV Sir

1

Perfectly inelastic supply

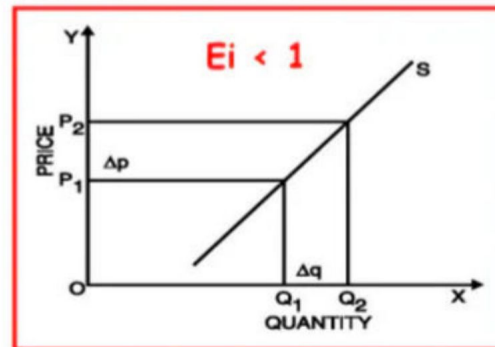
If as a result of a **change in price**, the quantity **supplied** of a good **remains unchanged**, we say that the elasticity of supply is **zero** or the good has perfectly inelastic supply.



2

Relatively less-elastic supply

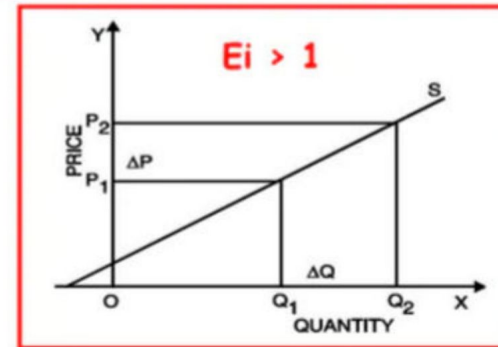
If as a result of a change in the price of a good its **supply changes less than proportionately**, we say that the supply of the good is relatively less elastic or elasticity of supply is less than one.



3

Relatively greater-elastic supply

If elasticity of supply is greater than one i.e., when the **quantity supplied of a good changes substantially** in response to a small change in the price of the good we say that supply is relatively elastic.

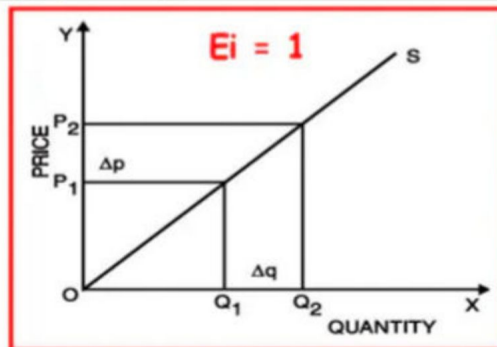


TYPES OF ELASTICITY OF SUPPLY

4

Unit-elastic

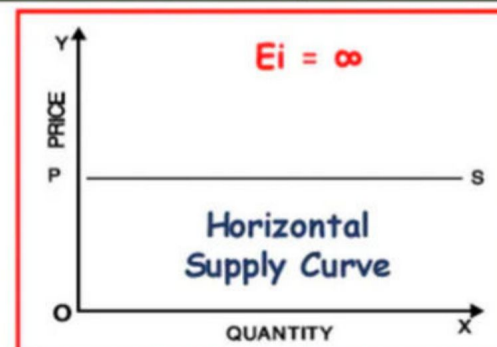
If the relative change in the quantity supplied is exactly equal to the relative change in the price, the supply is said to be unitary elastic. Here the coefficient of elasticity of supply is equal to one.



5

Perfectly elastic supply

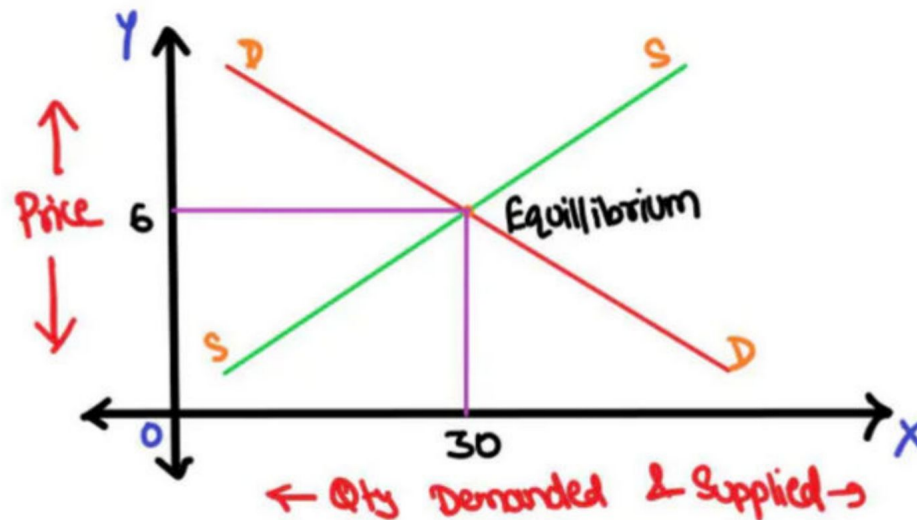
When **nothing is supplied** at a lower price, but a **small increase in price** causes **supply to rise** from **zero to an infinitely large amount** indicating that producers will supply any quantity demanded at that price



MV Sir

EQUILLIBRIUM PRICE

- **Equilibrium** refers to a market situation where **quantity demanded** is **equal** to **quantity supplied**.
- The **intersection** of **demand** and **supply** determines the **equilibrium price**. At this price the amount that the buyers want to buy is equal to the amount that sellers want to sell.
- Only at the equilibrium price, **both** the **buyers** and **sellers** are **satisfied**. Equilibrium price is also called **market clearing price**.
- The **determination of market price** is the **central theme** of micro economic analysis. Hence, micro-economic theory is also called **price theory**.



MV Sir

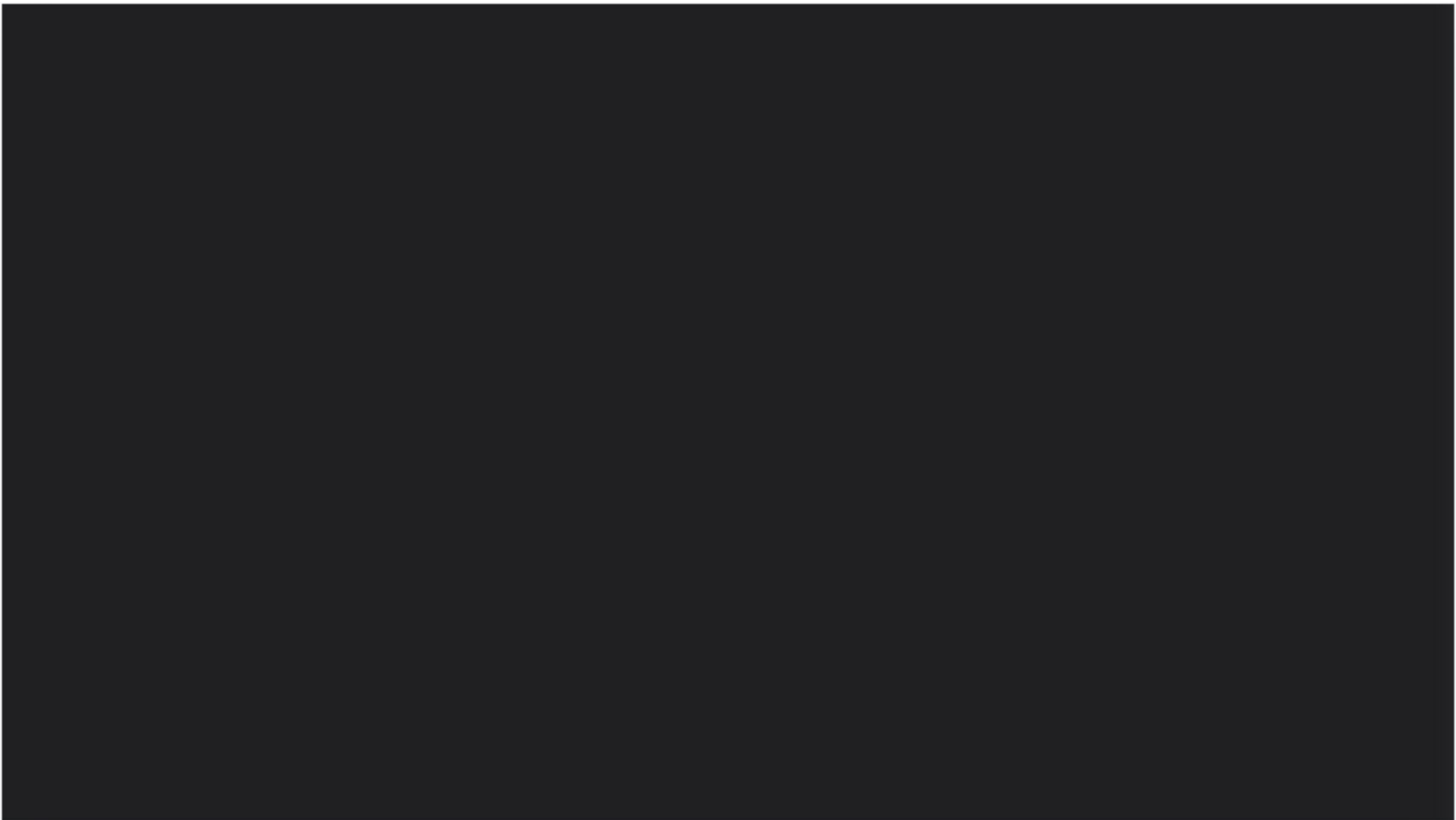
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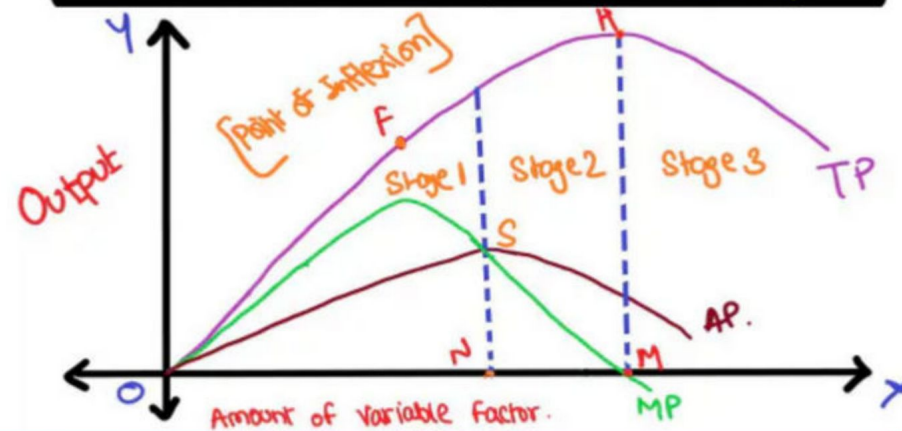
GRAPH REVISION

Chp 3- Theory of Production & Cost

MV Sir



Law of Variable Proportion- Summary

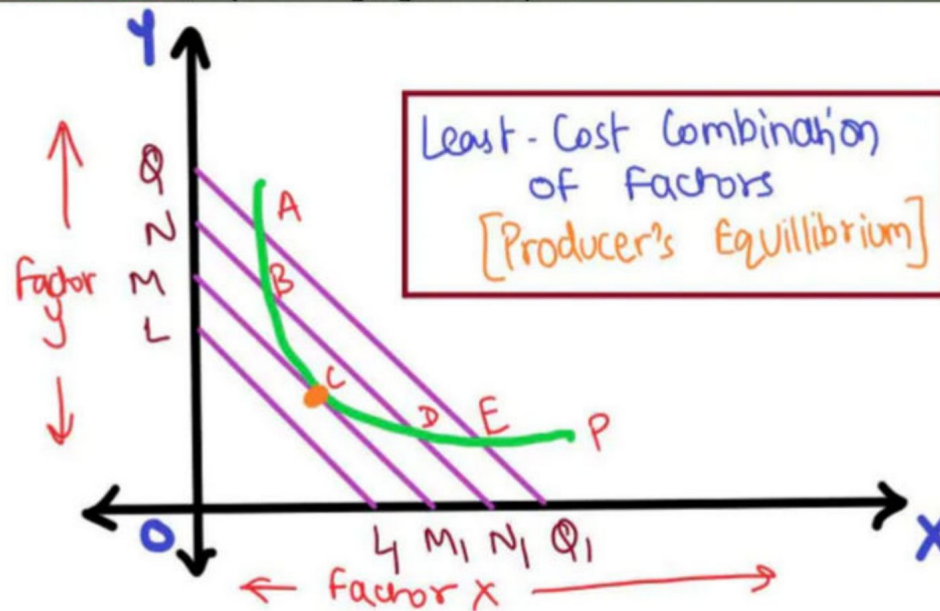


| Stages | | TP | MP | AP |
|--------|---------------------|--|---|--|
| 1 | Increasing Returns | <ul style="list-style-type: none"> TP increases at increasing rate till POI, After that it increases with decreasing rate. | <ul style="list-style-type: none"> MP rises & is maximum corresponding to POI, and the falls. MP > AP, throughout. | <ul style="list-style-type: none"> AP is rising. Stage ends= AP is max & AP = MP |
| 2 | Diminishing Returns | <ul style="list-style-type: none"> TP increases with decreasing rate Stage ends= TP is max. | <ul style="list-style-type: none"> MP is decreasing but positive. Stage ends= MP is 0 | <ul style="list-style-type: none"> AP is decreasing but positive. |
| 3 | Negative Returns | <ul style="list-style-type: none"> TP is decreasing | <ul style="list-style-type: none"> MP is decreasing & negative. | <ul style="list-style-type: none"> AP is decreasing but positive. |

MV Sir

PRODUCTION OPTIMISATION

- Suppose the firm has **decided to produce 1,000 units** (represented by **iso-quant P**). These units can be produced **by any factor combination lying on P** such as A, B, C, D, E, etc. The **cost** of producing 1,000 units would be **minimum at the factor combination** represented by **point C** where the **iso-cost line MM1** is **tangent to the given isoquant P**.
- At all other points such as **A, B, D, E** the **cost is more** as these **points lie on higher isocost lines** compared to MM1.
- It is thus clear that the **tangency point** of the given **isoquant** with an **isocost line** represents the **least cost combination of factors** for producing a given output.



VARIABLE FACTOR & VARIABLE COST

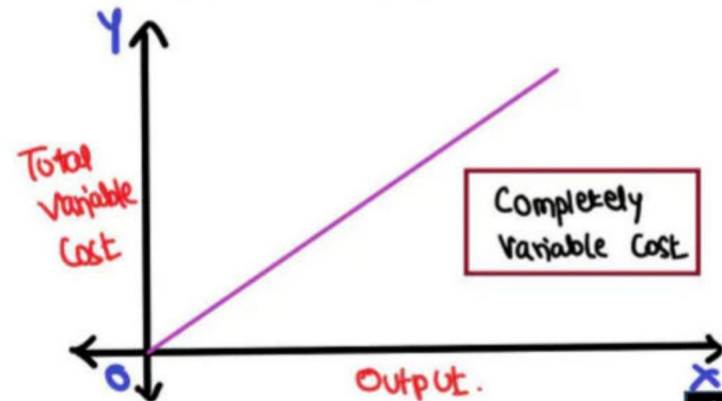
Variable Factors

- A firm can readily employ more workers if it has to increase output. Similarly, it can purchase more raw materials if it has to expand production. Such **factors** which can be **easily varied with a change in the level of output** are called variable factors.



Variable Cost

- Variable costs are those costs which **change with changes in output**.
- These costs include payments such as **wages of casual labour** employed, **prices of raw material**, **fuel** and power used, **transportation** cost etc.
- If a **firm shuts down** for a short period, it **may not use the variable factors** of production and therefore, will not therefore incur any variable cost.
- **Variable cost curve** drawn under the **assumption** that variable costs change **linearly** with changes in output.



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FIXED FACTOR & FIXED COST

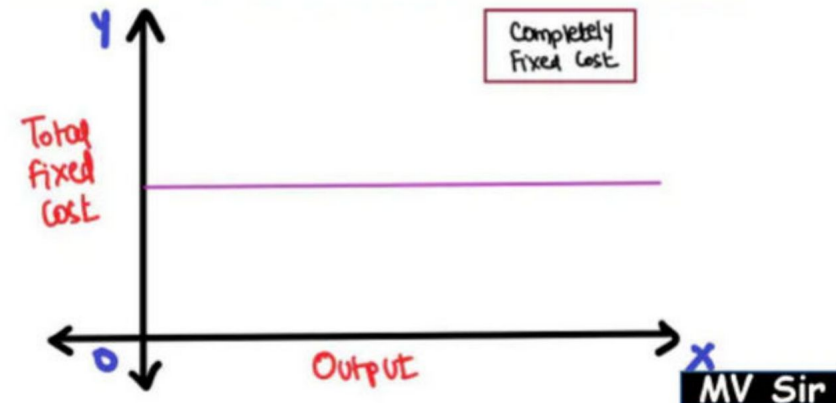
Fixed Factors

- Some factors such as **building, capital equipment, or top management team** which **cannot be so easily varied**.
- It takes time to install new machinery. Similarly, it takes time to build a new factory. Such factors which **cannot be readily varied** and **require a longer period to adjust** are called fixed factors.



Fixed Costs

- Fixed costs are those costs which are **independent of output**, i.e., they do not change with changes in output.
- These costs are a "**fixed amount**" which are incurred by a firm in the short run, **whether the output is small or large**.
- Even if the **firm closes down for some time** in the short run **but remains in business**, these costs **have to be borne** by it.
- Fixed costs include such charges as **contractual rent, insurance fee, property taxes, interest on capital employed, managers' salary, watchman's wages** etc.



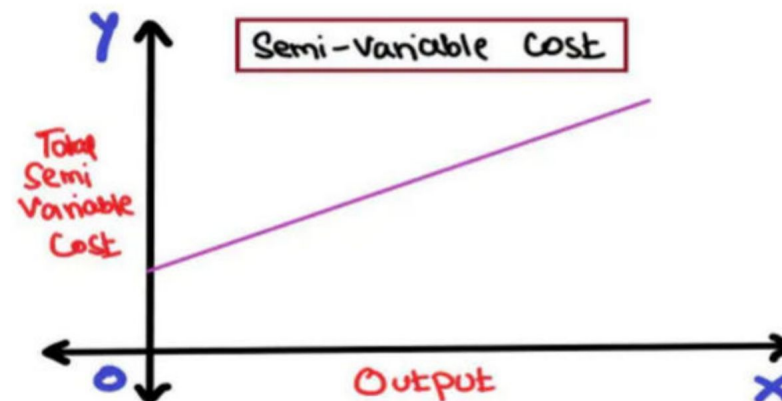
SHORT RUN Vs LONG RUN

- **Short run** is a period of time in which **output can be increased or decreased** by **changing only** the amount of **variable factors** such as, labour, raw materials, etc. In the **short run**, quantities of **fixed factors cannot be varied (remain unaltered)** in accordance with changes in output.
- On the other hand, **long run** is a period of time in which the **quantities of all factors** may be **varied**. In other words, all factors become variable in the long run.

SEMI - VARIABLE COST

Semi - Variable Cost

- There are some costs which are **neither perfectly variable, nor absolutely fixed** in relation to the changes in the size of output.
- These are known as semi-variable costs. Example: **Electricity** charges include both a fixed charge and a charge based on consumption, **Postpaid Telephone Bill** etc

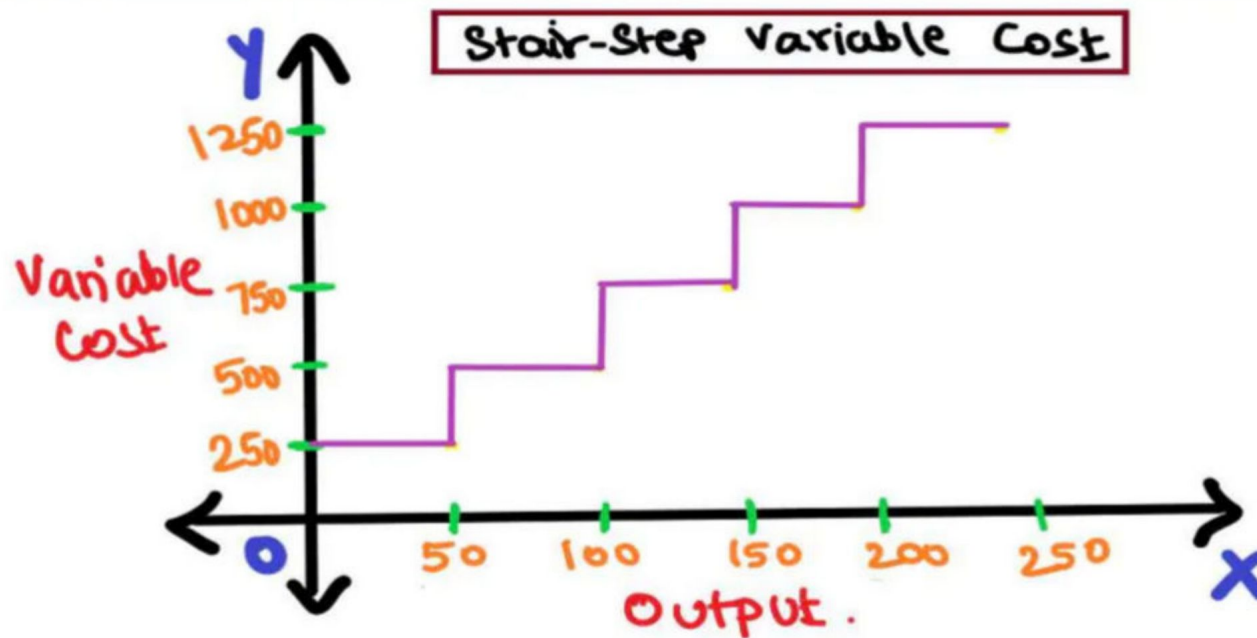


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STAIR-STEP VARIABLE COST

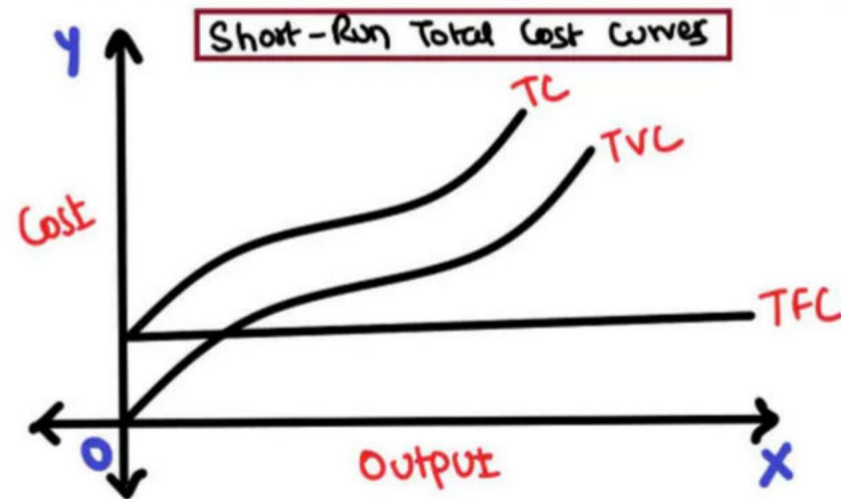
Stair-step variable cost

- There are some costs which may **increase in a stair-step fashion**, i.e., they **remain fixed over certain range of output**; but **suddenly jump** to a new higher level when output goes beyond a given limit.
- E.g. One **box** which can accommodate only 50 chocolates. Cost per Box= Rs 250. For 70 or 80 or 90 chocolates, 2 boxes will be required.



SHORT RUN TOTAL COSTS

- $TC = TFC + TVC$
- Total Fixed Cost curve (TFC)
 - horizontal straight line parallel to X-axis
 - Starts from a point on the Y-axis
- Total Variable Cost (TVC)
 - Initially increases at a decreasing rate and then at an increasing rate.
- Total Cost Curve (TC)
 - Obtained by adding vertically the TFC curve and the TVC curve.
 - Slopes of TC and TVC are the same
 - At each point the TC & TVC curves have vertical distance equal to total fixed cost.



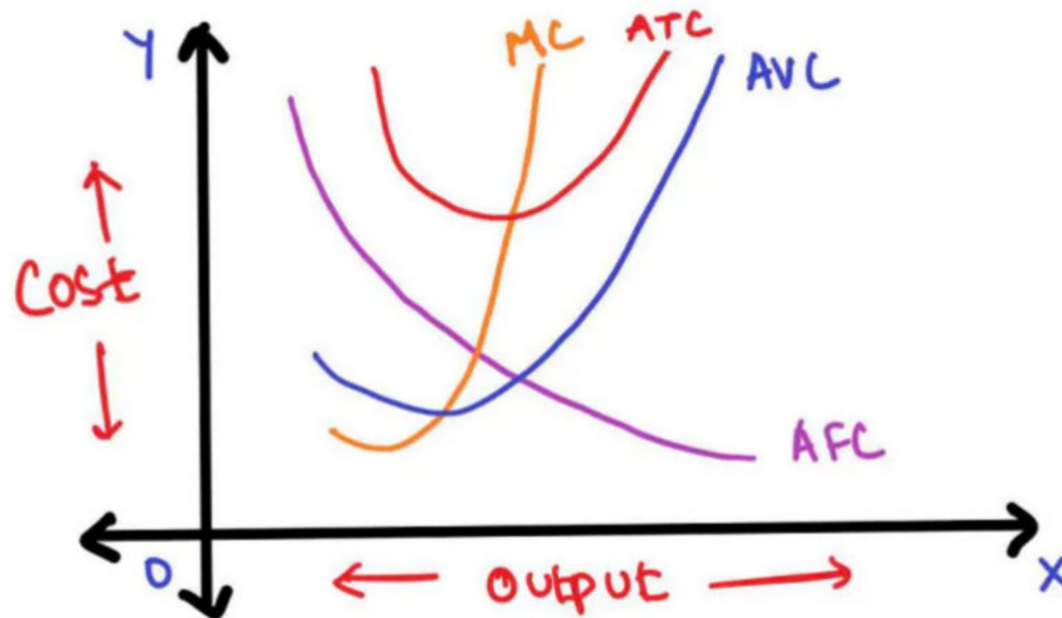
SHORT RUN AVERAGE COSTS

Average Total Cost (ATC)

Average Fixed Cost (AFC)

+

Average Variable Cost (AVC)



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Average Fixed Cost (AFC)

- AFC is obtained by **dividing the total fixed cost by the number of units of output produced**, i.e.

$$AFC = TFC / Q$$

- Thus, AFC is the **fixed cost per unit of output**. For **example**, if a firm is producing with a total fixed cost of Rs 2,000.
 - When output is 100 units, AFC= Rs 20.
 - If output increases to 200 units, AFC= Rs 10.
- Since total fixed cost is a constant amount, average fixed cost will **steadily fall as output increases**.
- AFC curve will **slope downwards** throughout its length but will **not touch the X-axis as AFC cannot be zero**.

Average Variable Cost (AVC)

- AVC is found out by **dividing the total variable cost by the number of units of output produced**, i.e.

$$AVC = TVC / Q$$

- Thus, AVC is the **variable cost per unit of output**.
- AVC normally **falls as output increases from zero to normal capacity** output due to occurrence of **increasing returns to variable factors**.
- But **beyond the normal capacity** output, average variable cost will **rise steeply** because of the operation of **diminishing returns**.
- AVC curve will **first fall**, then reach a **minimum** and then **rise**.

Average Total Cost (ATC)

- **ATC = AFC + AVC**
- It is the **total cost divided** by the **number of units produced**, i.e. **ATC = TC / Q**
- In the beginning, both AVC and AFC curves fall, thus, **ATC curve will also fall sharply**. When AVC curve begins to rise, but AFC curve still falls steeply, ATC curve **continues to fall**.
- This is because, during this stage, the **fall in AFC curve is greater than the rise in the AVC curve**, but as **output increases** further, there is a **sharp rise in AVC** which **more than offsets** the **fall in AFC**.
- Therefore, ATC curve first **falls**, reaches its **minimum** and then **rises**. Thus, the average total cost curve is a **"U" shaped curve**.

MV Sir

Marginal Cost Curve (MC)

- Marginal cost is the **addition made to the total cost** by the **production of an additional unit** of output.

$$MC = \text{Change in TC} / \text{Change in Output}$$

Or

$$MC_n = TC_n - TC_{n-1}$$

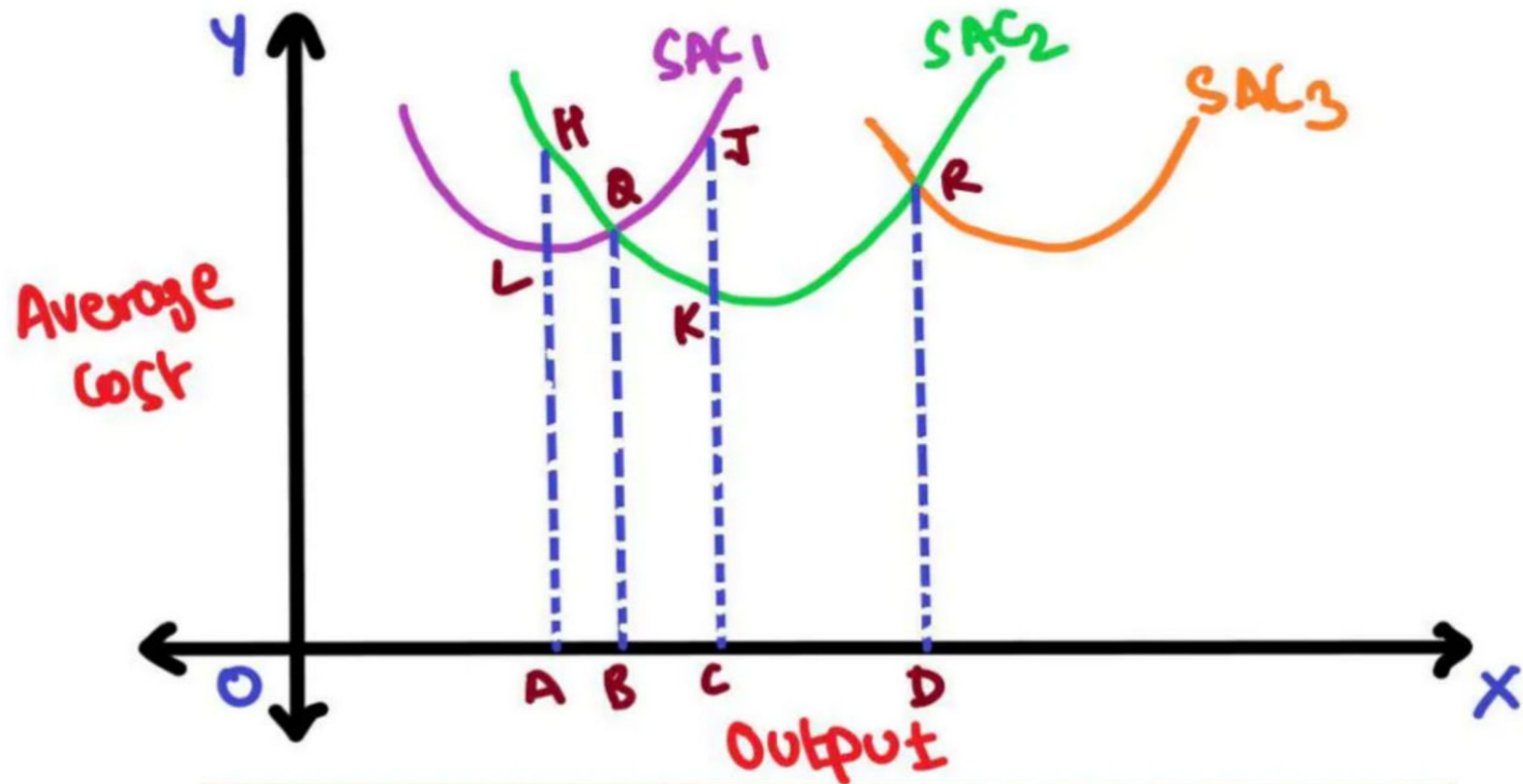
- For example,
- If we are producing 5 units at a cost of Rs 200 and now suppose the 6th unit is produced and the total cost is Rs 250, then the marginal cost is $250 - 200 = \text{Rs } 50$.
 - Marginal Cost will be Rs 24, if 10 units are produced at a total cost of Rs 320 $[(320-200) / (10-5)]$.
- Marginal Cost is **independent of fixed cost**. This is because fixed costs do not change with output. It is **only the variable costs** which **change with a change in the level of output** in the short run. Therefore, **marginal cost** is in fact **due to the changes in variable costs**.
- Marginal cost curve **falls as output increases** in the **beginning**. It **starts rising** after a certain level of output. This happens because of the influence of the **law of variable proportions**.
- The MC curve becomes **minimum corresponding** to the **point of inflection** on the total cost curve. The fact that marginal product rises first, reaches a maximum and then declines ensures that the **marginal cost curve** of a firm **declines first**, reaches its **minimum** and **then rises**. In other words marginal cost curve of a firm is **"U" shaped**.

➤ The graph shows that:

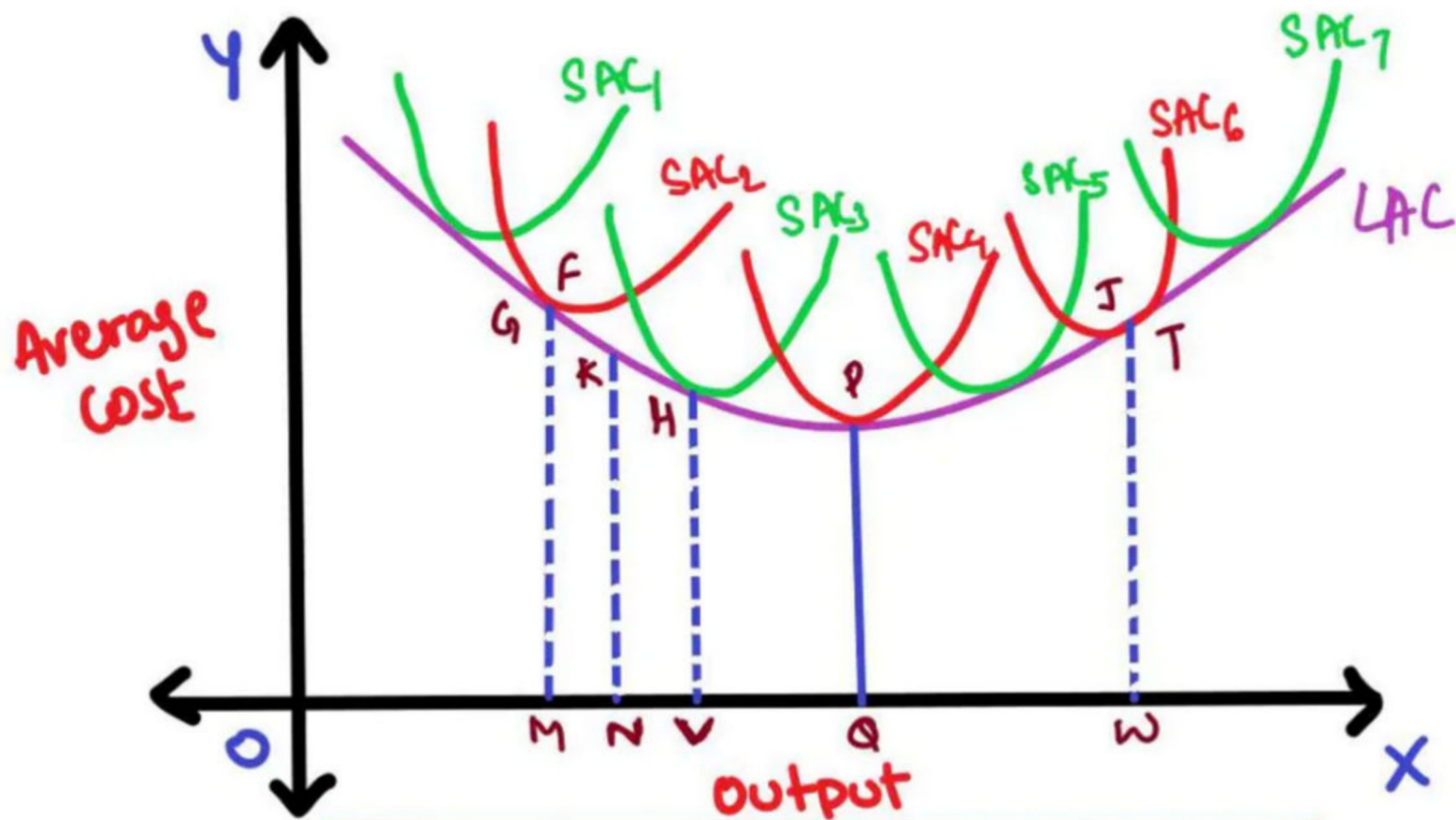
- 1) **Fixed costs do not change with increase in output** upto a given level. Average fixed cost, therefore, comes down with every increase in output.
- 2) **Variable costs increase**, but **not necessarily in the same proportion** as the increase in **output**. Thereafter it starts increasing.
- 3) Marginal cost is the additional cost divided by the additional units produced. This also **comes down first and then starts increasing**.

Relationship between Average Cost and Marginal Cost

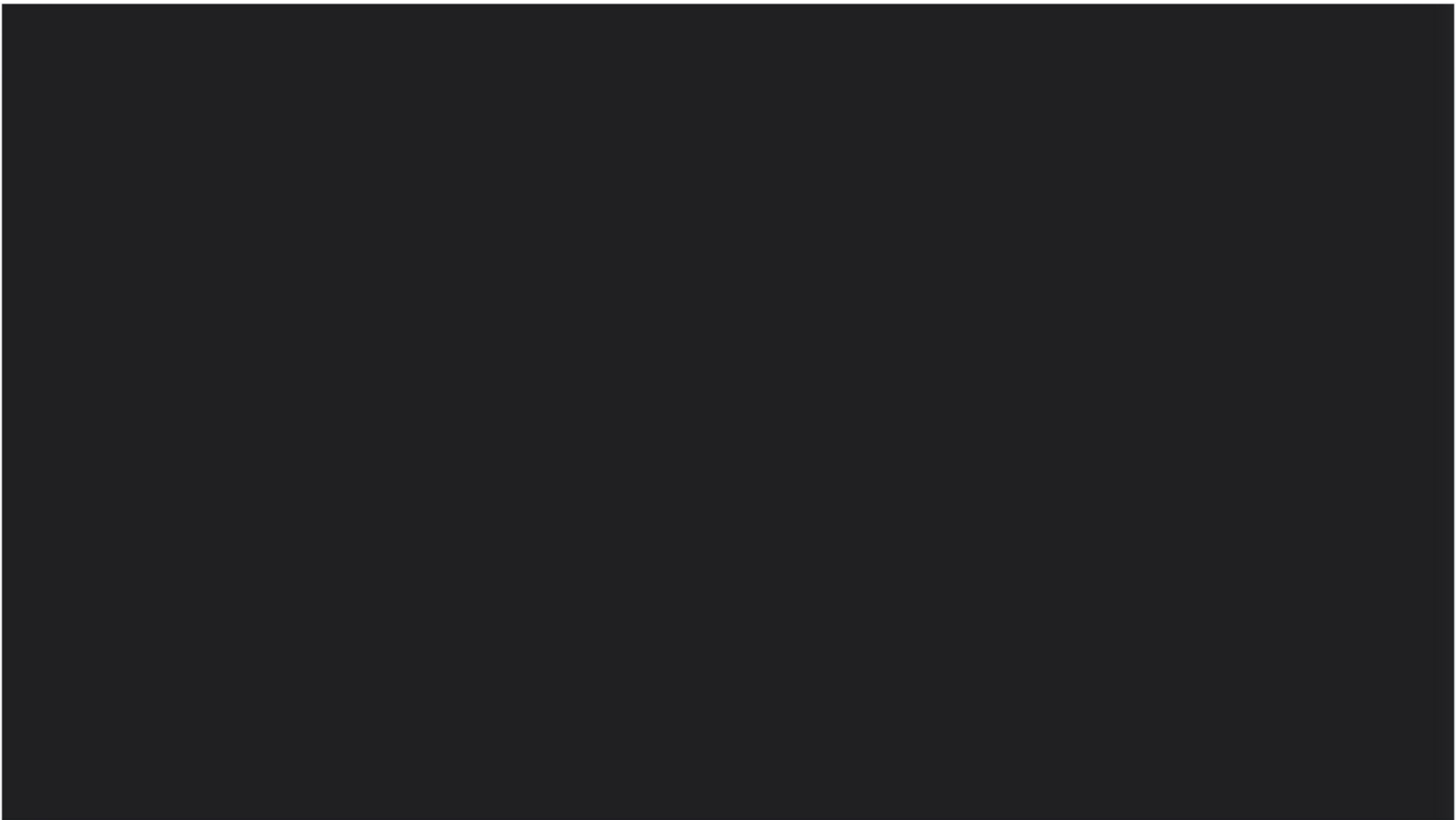
- 1) When **average cost falls** as a result of an increase in output, **marginal cost is less than average cost**.
- 2) When **average cost rises** as a result of an increase in output, **marginal cost is more than average cost**.
- 3) When **average cost is minimum**, marginal cost is **equal** to the average cost. In other words, marginal cost curve **cuts** average cost curve at its **minimum point** (i.e. optimum point).



SHORT RUN AVERAGE COST CURVES



LONG RUN AVERAGE COST CURVES



LONG RUN AVERAGE COST CURVE

- For example, to produce **OM**, the firm will be using **SAC 2 only**; if it uses SAC 3, it will result in higher unit cost than SAC 2. But, **larger output OV** can be produced **most economically** with a **larger plant** represented by the **SAC 3**. If we produce OV with a smaller plant, it will result in higher cost per unit.
- Similarly, if we produce **larger output with a smaller plant** it will involve **higher costs** because of its **limited capacity**.
- It is to be noted that **LAC curve** is **NOT tangent to the minimum points of the SAC curves**. When the LAC curve is declining, it is tangent to the falling portions of the short run cost curves and when the LAC curve is rising, it is tangent to the rising portions of the short run cost curves.
- Thus, for **producing output less than "OQ"** at the lowest possible unit cost, the firm will construct the relevant plant and **operate it at less than its full capacity**, i.e., at less than its minimum average cost of production. On the other hand, for **outputs larger than OQ** the firm will construct a plant and **operate it beyond its optimum capacity**.
- **"OQ" is the optimum output**. This is because "OQ" is being produced at the **minimum point of LAC and corresponding SAC 4**. Other plants are either used at less than their full capacity or more than their full capacity. Only SAC 4 is being operated at the minimum point.
- The long run average cost curve is often called as **'planning curve'** because a firm **plans to produce any output in the long run** by **choosing a plant** on the LAC curve **corresponding** to the given **output** at the **least possible cost**.

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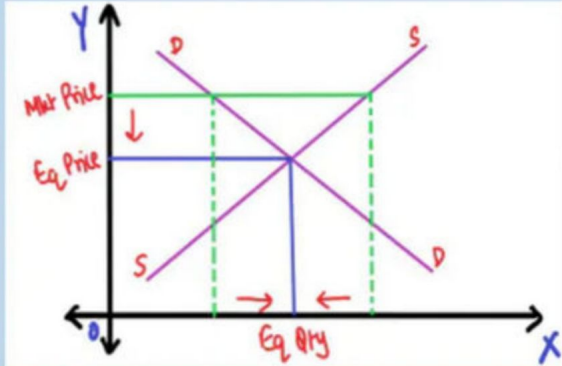
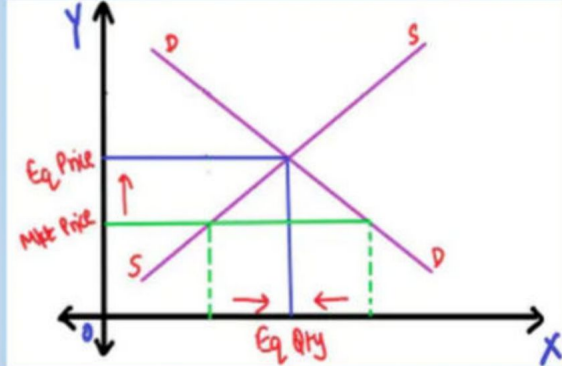
GRAPH REVISION

Chp 4- Meaning And Types Of Markets

Unit 2- Determination Of Prices

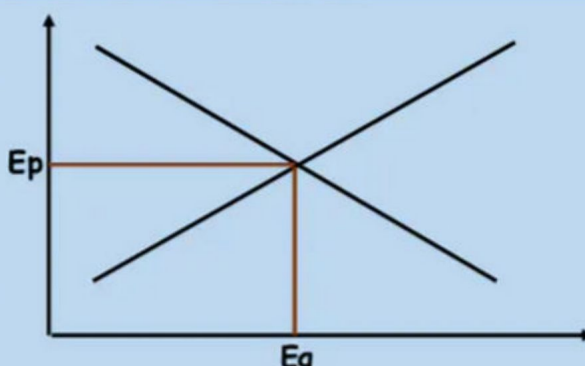
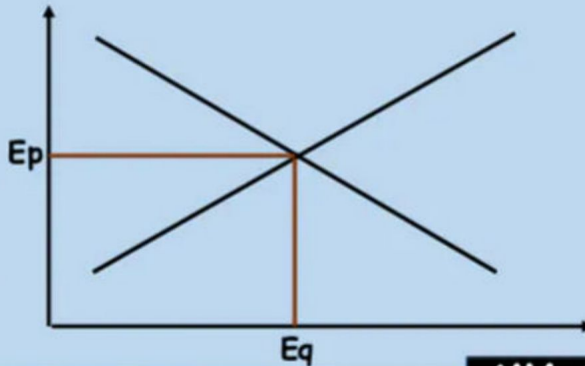
MV Sir

SUMMARY

| S. No. | Situation | Effect | Diagram | |
|--------|--|----------------------------------|---|--|
| 1. | Market Price $>$ Equi Price i.e., Qty Supplied $>$ Qty Demanded (Surplus) | Downward Pressure on Price | Qty Supplied decreases & Qty Demanded increases Upto Equilibrium |  <p>The diagram shows a coordinate system with a vertical Y-axis and a horizontal X-axis. A downward-sloping demand curve (D) and an upward-sloping supply curve (S) intersect at an equilibrium point. A horizontal line above the equilibrium price is labeled 'Mkt Price' in red, with a downward arrow indicating a decrease. A horizontal line at the equilibrium level is labeled 'Eq Price' in blue. Vertical dashed lines from the intersection of the market price and the supply curve to the X-axis are labeled 'Eq Qty' in red. Red arrows on the X-axis point towards the equilibrium quantity from both sides.</p> |
| 2. | Market Price $<$ Equi Price i.e., Qty Supplied $<$ Qty Demanded (Shortage) | Upward Pressure on Price | Qty Supplied increases & Qty Demanded decreases Upto Equilibrium |  <p>The diagram shows a coordinate system with a vertical Y-axis and a horizontal X-axis. A downward-sloping demand curve (D) and an upward-sloping supply curve (S) intersect at an equilibrium point. A horizontal line below the equilibrium price is labeled 'Mkt Price' in red, with an upward arrow indicating an increase. A horizontal line at the equilibrium level is labeled 'Eq Price' in blue. Vertical dashed lines from the intersection of the market price and the supply curve to the X-axis are labeled 'Eq Qty' in red. Red arrows on the X-axis point towards the equilibrium quantity from both sides.</p> |

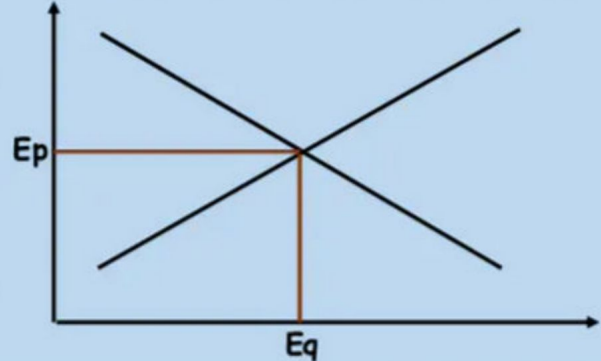
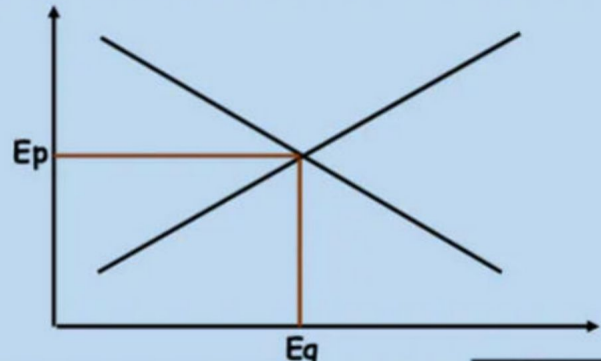
MV Sir

SUMMARY

| S. No. | Situation | Effect | | Diagram |
|--------|--------------------|------------|----------|---|
| | | Equi Price | Equi Qty | |
| 3. | Increase in Demand | Increase | Increase |  <p>The diagram shows a standard supply and demand model. The vertical axis represents price and the horizontal axis represents quantity. A downward-sloping demand curve and an upward-sloping supply curve intersect at an equilibrium point. Dashed lines from this intersection point lead to the labels E_p on the vertical axis and E_q on the horizontal axis.</p> |
| 4. | Decrease in Demand | Decrease | Decrease |  <p>The diagram shows a standard supply and demand model. The vertical axis represents price and the horizontal axis represents quantity. A downward-sloping demand curve and an upward-sloping supply curve intersect at an equilibrium point. Dashed lines from this intersection point lead to the labels E_p on the vertical axis and E_q on the horizontal axis.</p> |

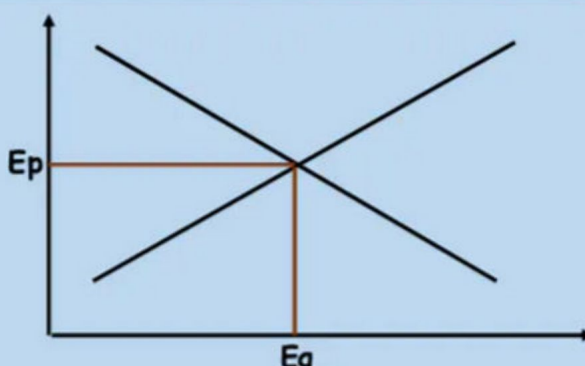
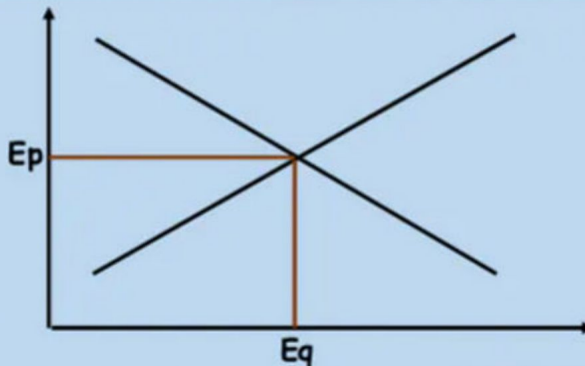
MV Sir

SUMMARY

| S. No. | Situation | Effect | | Diagram |
|--------|--------------------|------------|----------|--|
| | | Equi Price | Equi Qty | |
| 5. | Increase in Supply | Decrease | Increase |  <p>The diagram shows a downward-sloping demand curve and an upward-sloping supply curve. The equilibrium point is marked with a horizontal line to the y-axis labeled E_p and a vertical line to the x-axis labeled E_q. The supply curve is shifted to the right, resulting in a lower equilibrium price and a higher equilibrium quantity.</p> |
| 6. | Decrease in Supply | Increase | Decrease |  <p>The diagram shows a downward-sloping demand curve and an upward-sloping supply curve. The equilibrium point is marked with a horizontal line to the y-axis labeled E_p and a vertical line to the x-axis labeled E_q. The supply curve is shifted to the left, resulting in a higher equilibrium price and a lower equilibrium quantity.</p> |

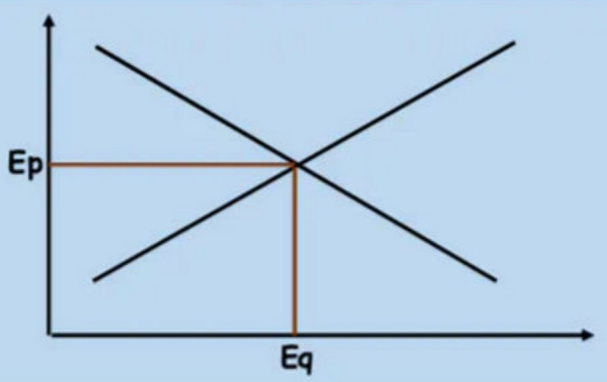
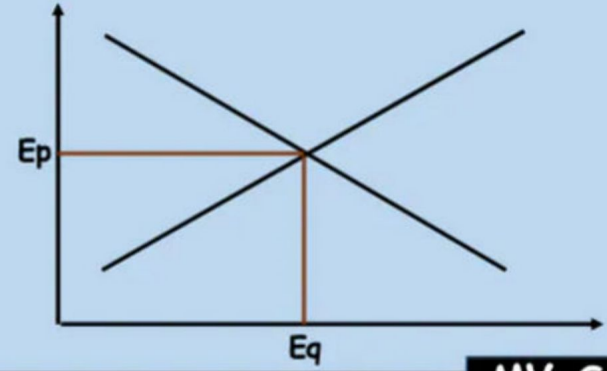
MV Sir

SUMMARY

| S. No. | Situation | Effect | | Diagram |
|--------|---|--------------|----------|--|
| | | Equi Price | Equi Qty | |
| 7. | Increase in Demand is equal to Increase in Supply | Remains Same | Increase |  |
| 8. | Increase in Demand is greater than Increase in Supply | Increase | Increase |  |

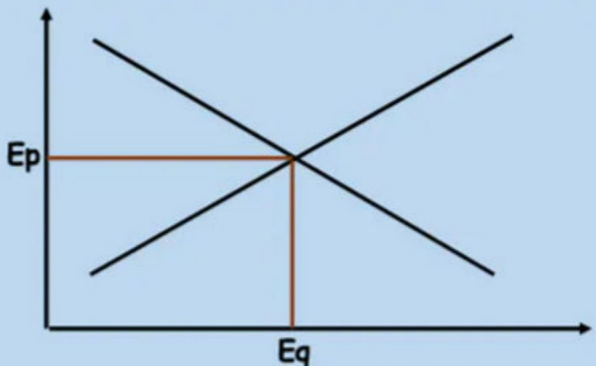
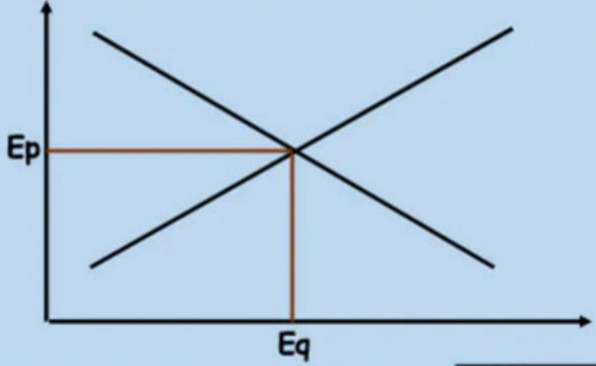
MV Sir

SUMMARY

| S. No. | Situation | Effect | | Diagram |
|--------|---|------------|----------|--|
| | | Equi Price | Equi Qty | |
| 9. | Decrease in Demand is greater than Decrease in Supply | Decrease | Decrease |  <p>The diagram shows a downward-sloping demand curve and an upward-sloping supply curve. A second, steeper supply curve is shown to the left of the first. The initial equilibrium is at the intersection of the two curves, with price E_p and quantity E_q. The new equilibrium is at the intersection of the steeper supply curve and the demand curve, resulting in a lower price and a lower quantity.</p> |
| 10. | Increase in Supply is greater than Increase in Demand | Decrease | Increase |  <p>The diagram shows a downward-sloping demand curve and an upward-sloping supply curve. A second, flatter supply curve is shown to the right of the first. The initial equilibrium is at the intersection of the two curves, with price E_p and quantity E_q. The new equilibrium is at the intersection of the flatter supply curve and the demand curve, resulting in a lower price and a higher quantity.</p> |

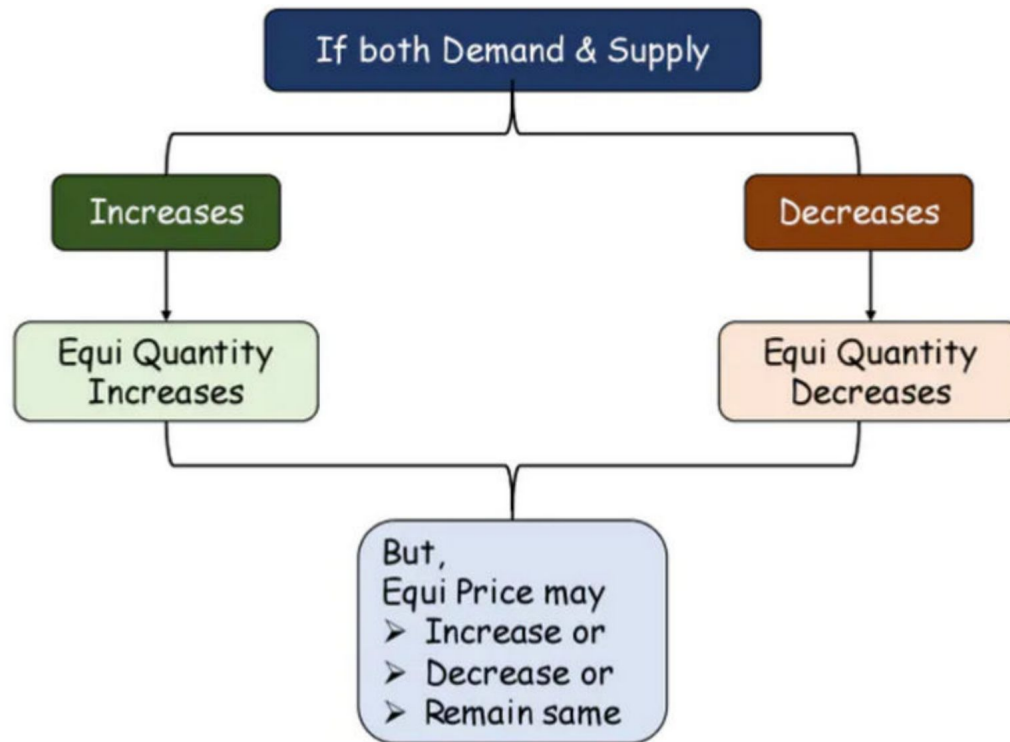
MV Sir

SUMMARY

| S. No. | Situation | Effect | | Diagram |
|--------|---|--------------|----------|--|
| | | Equi Price | Equi Qty | |
| 11. | Decrease in Supply is greater than Decrease in Demand | Increase | Decrease |  |
| 12. | Decrease in Supply is equal to Decrease in Demand | Remains same | Decrease |  |

MV Sir

SUMMARY



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GRAPH REVISION

Chp 5- Business Cycles

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Phases of Business Cycles

Expansion
(aka Boom or Upswing)

Peak
(aka Boom or Prosperity)

Contraction
(aka Downturn or Recession)

Trough
(aka Depression)

