

## Supply

- Refers to *different quantities* of a commodity offered for sale at *different prices*
- For Example: *Different quantities* that are tabulated against *different prices* at which they are offered for sale

Price (in Rs)	Quantity (in units)
1	5
2	10
3	15
4	20
5	25

## Quantity Supplied

- Refers to *particular amount* of a commodity offered for sale at a *specific price*
- For Example: **15 units** of a commodity is offered for sale at **Rs 3**



Quantity Supplied

This whole table  
is known as  
*Supply Schedule*

## Supply

## Market Supply

*Tabular presentation* representing different quantities of a commodity offered for sale corresponding to different prices is supply schedule

### Individual Supply Schedule

Represents *quantities supplied by individual producer* at different prices

### Market Supply Schedule

Represents *total quantities supplied by all producers* at different prices

Price	Quantity by A		Price	Quantity by B		Price	Quantity by A	Quantity by B	Market Supply (1 + 2)
1	5	+	1	10	=	1	5	10	15
2	10		2	20		2	10	20	30
3	15		3	30		3	15	30	45
4	20		4	40		4	20	40	60
5	25		5	50		5	25	50	75

# Supply Curve

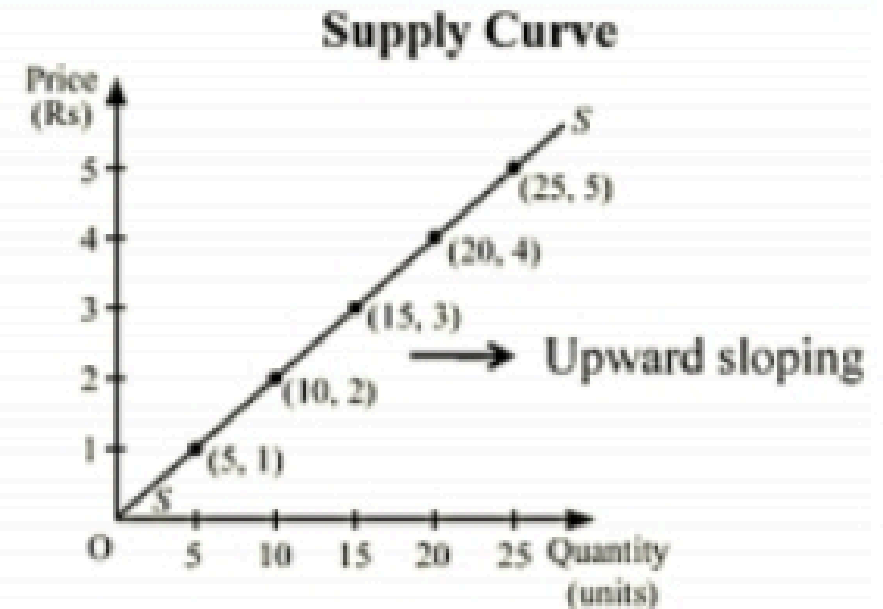
*Graphical presentation* of supply schedule showing different quantities of a commodity offered for sale at different prices

Price	Quantity Supplied
1	5
2	10
3	15
4	20
5	25

$P \uparrow \rightarrow Q \uparrow$

$P \downarrow \rightarrow Q \downarrow$

**Positive  
Relationship**



## Slope of Supply Curve

Expresses the *rate* at which *quantity supply changes* with *change in price*

$$\text{Slope of Supply Curve} = \frac{\text{Change in quantity supplied}}{\text{Change in price}} = \frac{\Delta Q_s}{\Delta P}$$

### Individual Supply Curve

Graphical presentation of quantities supplied by an *individual* firm or producer at different prices

### Market Supply Curve

Graphical presentation of *aggregate* quantities supplied by *all* the firms or producers at different prices

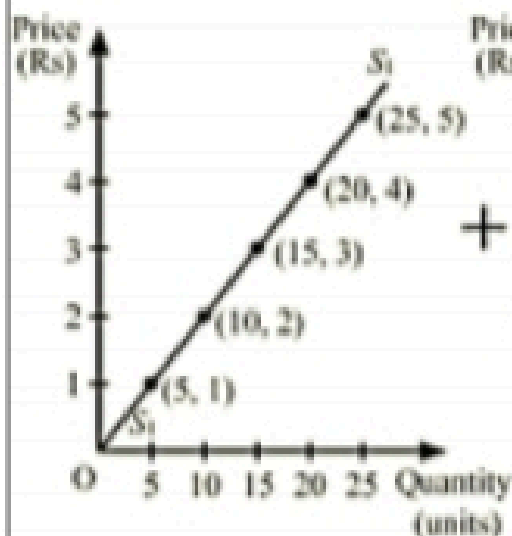
Price	Qty by A
1	5
2	10
3	15
4	20
5	25

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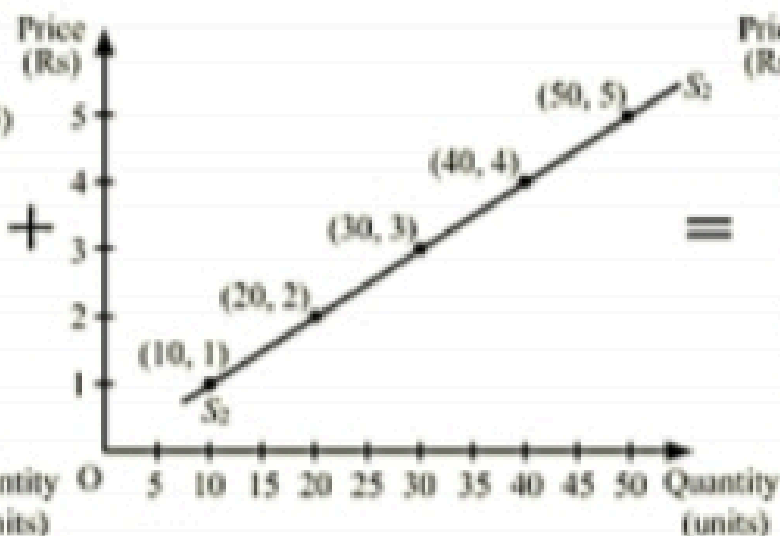
Price	Qty by B
1	10
2	20
3	30
4	40
5	50

=

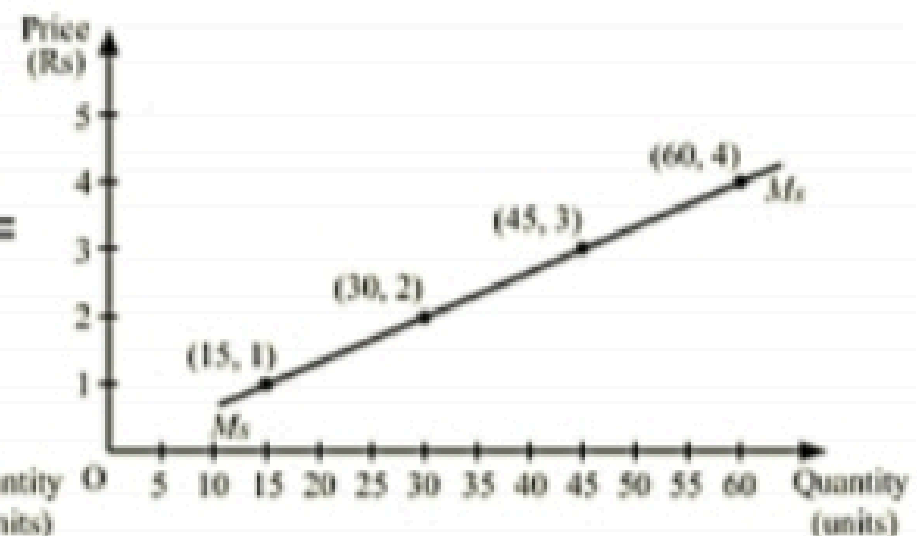
Price	Qty by A	Qty by B	Mkt. Supply
1	5	10	15
2	10	20	30
3	15	30	45
4	20	40	60
5	25	50	75



+



=



# Why Supply Curve slopes upwards?

## Law of Diminishing Marginal Productivity

Employing *more and more units* of variable factors

*Additional returns* to variable factors ↓

*Marginal and Average Costs* ↑

Supply of more units at *higher prices* to cover the *high production cost*

## Profit Maximisation Goal of Firm

Aim of *earning and maximising profits*

Charging *higher price* at given cost of production

*Profits* ↑

Supply of more units at *higher prices* to *maximise profits*

# Supply Function

Relationship between different *variables and supply* of a commodity expressed in a *functional form*

$$Q_x = f(P_x, P_y, T, P_i, G, G_F, N_F)$$

Here,

$Q_x$  = Quantity Supplied of Commodity 'x'

$P_x$  = Price of Commodity 'x'

$P_y$  = Price of Related Goods

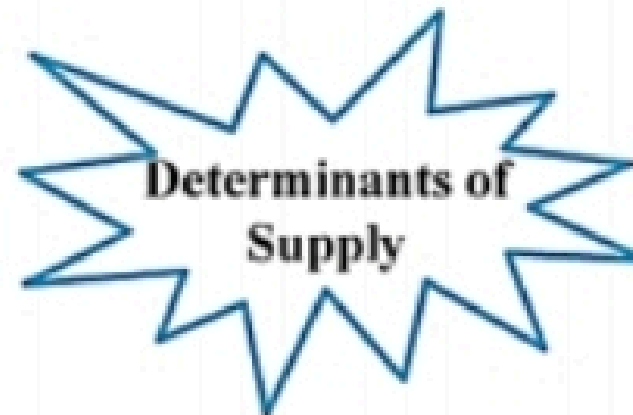
$T$  = State of Technology

$P_i$  = Price of Inputs, Raw Materials  
or Cost of Production

$G$  = Government Policy

$G_F$  = Goal of the Firm

$N_F$  = Natural Factors



# Determinants of Supply

Price of Commodity  
( $P_x$ )

Price of Related Goods  
( $P_y$ )

State of Technology  
( $T$ )

Price of Inputs  
( $P_i$ )

Government Policy  
( $G$ )

Goal of Firm  
( $G_f$ )

Natural Factors  
( $N_f$ )

$$P_x \uparrow \Rightarrow Q_x \uparrow$$

OR

$$P_x \downarrow \Rightarrow Q_x \downarrow$$

Positive Relationship

## Related Goods

Substitute

Complimentary

$$P_y \uparrow \Rightarrow Q_x \downarrow$$

(Coffee) OR (Tea)

$$P_y \downarrow \Rightarrow Q_x \uparrow$$

(Coffee) OR (Tea)

Positive Relationship

$$P_y \uparrow \Rightarrow Q_x \uparrow$$

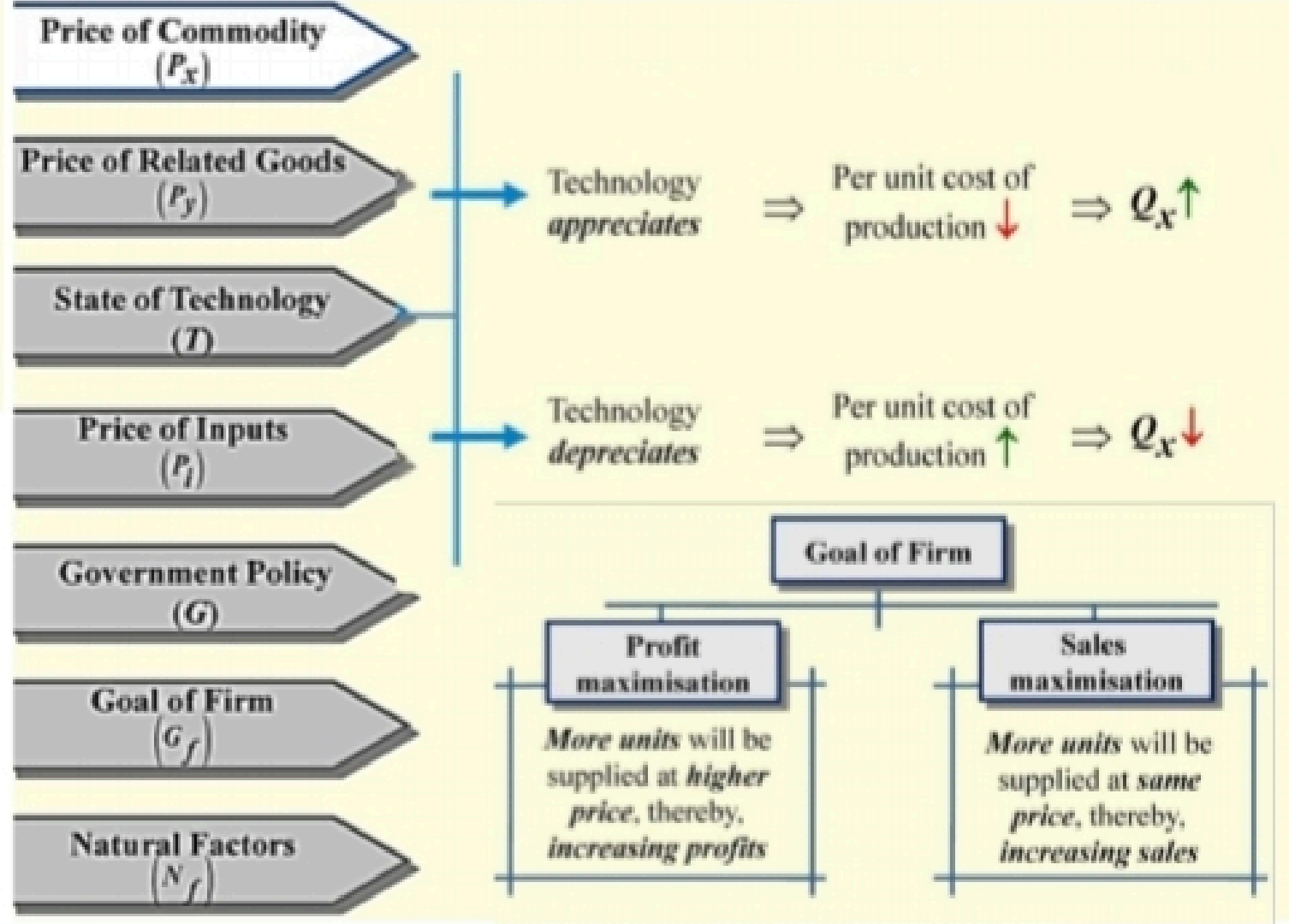
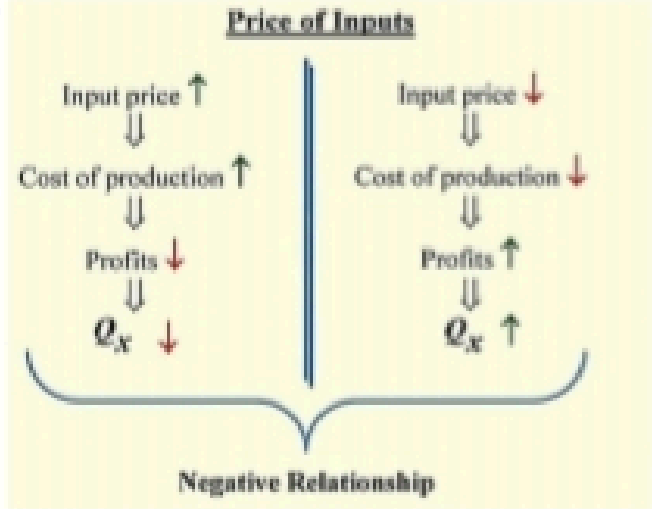
(Ink) OR (Pen)

$$P_y \downarrow \Rightarrow Q_x \downarrow$$

(Ink) OR (Pen)

Negative Relationship

## Determinants of Supply



- Artistic goods
- Perishable goods
- Underdeveloped & backward countries
- Agricultural sector products

## Law of Supply

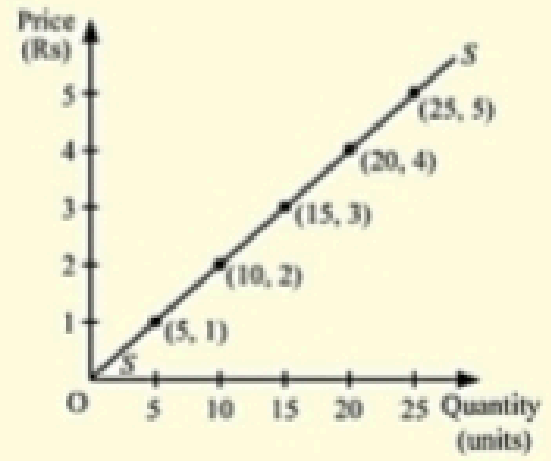
According to the law of supply, *quantity supplied* of a commodity is *positively related* to the *price* of the commodity, *other things remaining constant (ceteris paribus)*

Algebraically,

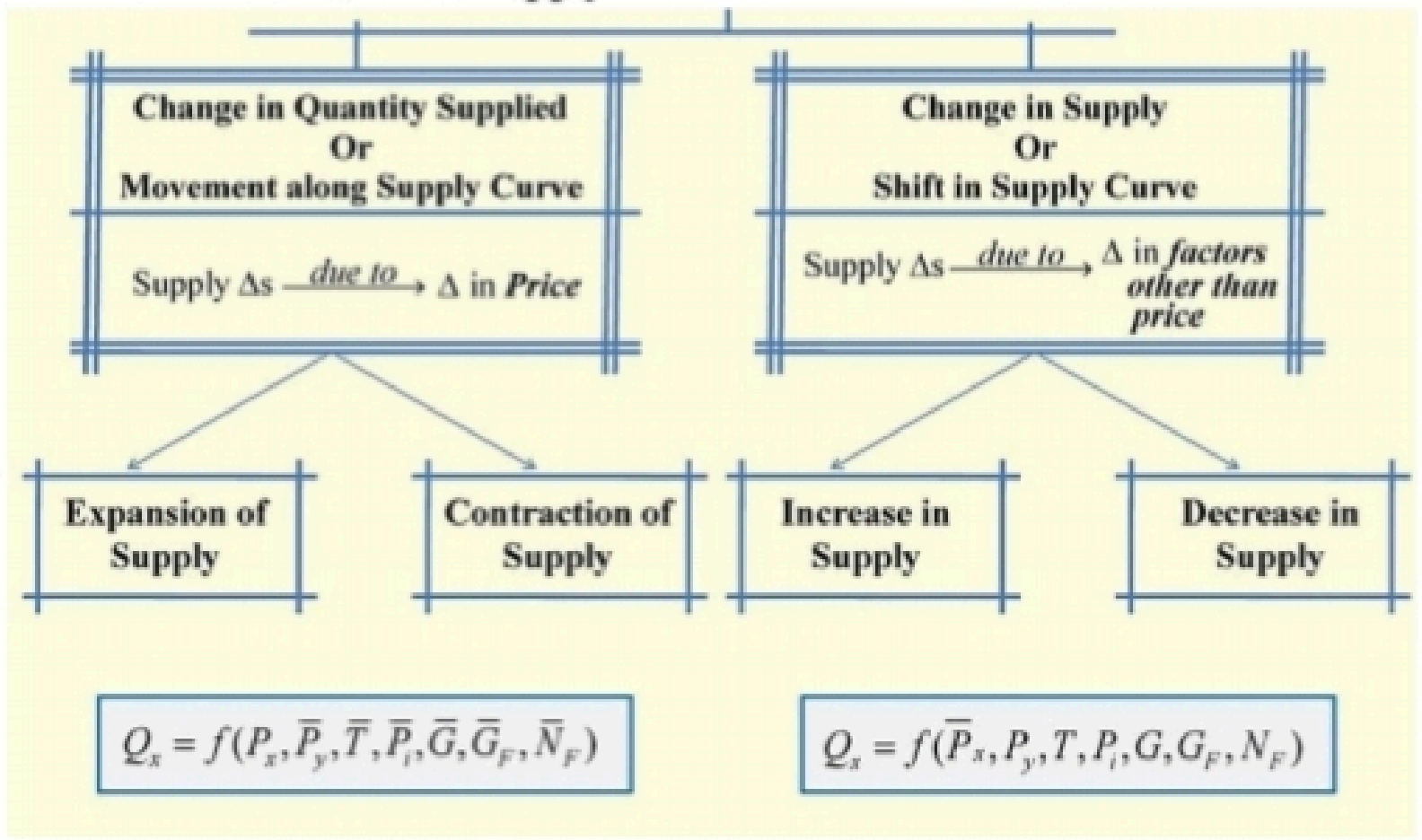
$$Q_x = f(P_x, \bar{P}_y, \bar{T}, \bar{P}_i, \bar{G}, \bar{G}_F, \bar{N}_F)$$

\*  $\bar{\quad}$  bar represents that variables are constant

Price	Quantity Supplied
1	5
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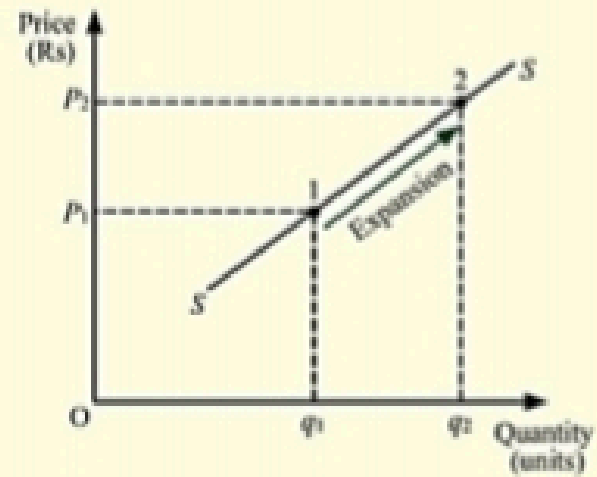


## Law of Supply



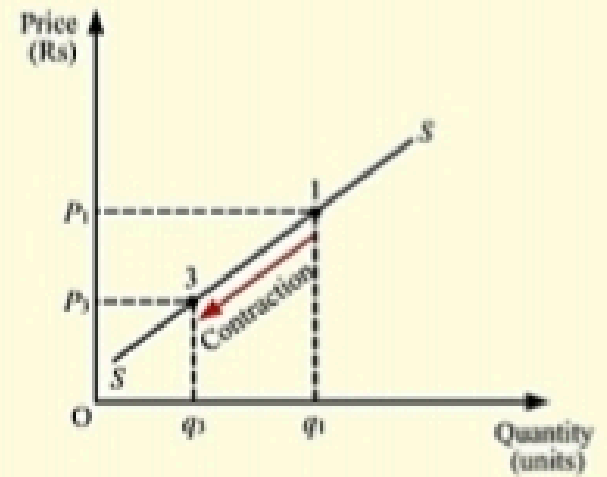
## Change in Quantity Supply

### Expansion of Supply



Due to  $\uparrow$  in Price  $\Rightarrow$  Upward movement from 1 to 2  $\Rightarrow$  Expansion of Supply

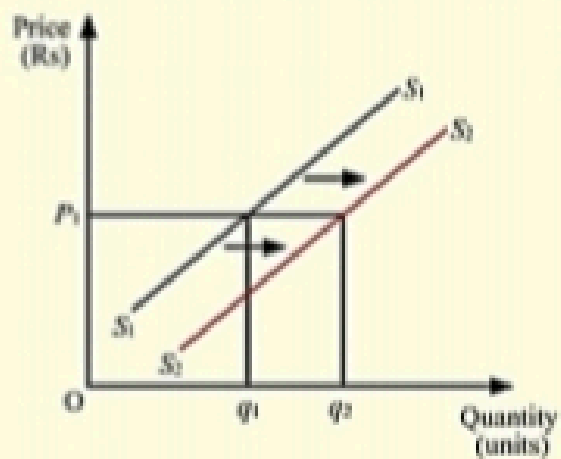
### Contraction of Supply



Due to  $\downarrow$  in Price  $\Rightarrow$  Downward movement from 1 to 3  $\Rightarrow$  Contraction of Supply

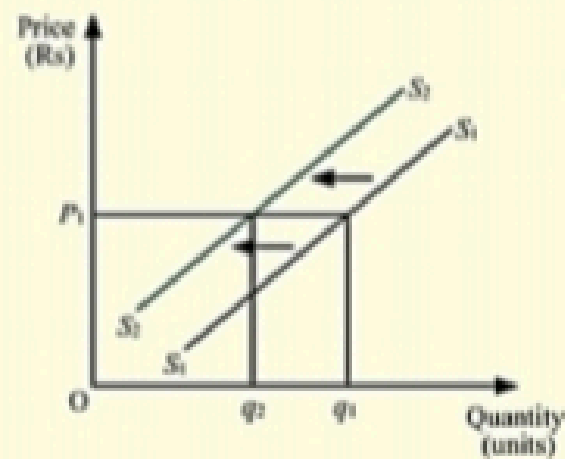
## Change in Supply

Increase in Supply



Due to  $\uparrow$  in Supply  $\Rightarrow S_1 S_2$  shifts to  $S_2 S_2 \Rightarrow$  No  $\Delta$  in Price

Decrease in Supply



Due to  $\downarrow$  in Supply  $\Rightarrow S_1 S_2$  shifts to  $S_2 S_2 \Rightarrow$  No  $\Delta$  in Price

**Difference**

<b>Change in Quantity Supplied</b>	<b>V/S</b>	<b>Change in Supply</b>
Caused due to <i>change in the price</i> of the commodity		Caused by <i>factors other than change in price</i>
Shown by <i>movement</i> along the supply curve		Shown by <i>shift</i> in the supply curve
Types are: <ul style="list-style-type: none"><li>• Expansion of Supply</li><li>• Contraction of Supply</li></ul>		Types are: <ul style="list-style-type: none"><li>• Increase in Supply</li><li>• Decrease in Supply</li></ul>