

MNS UNIVERSITY OF  
AGRICULTURE MULTAN

Assignment.

COURSE: (ECON-311)  
Principle of Economics

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## CHANGES IN Supply

### → DEFINATION :-

When the supplies of a given good or service alter production or output then change in supply occurs.

### → Factors of changes in Supply

A change can occur as a result of new technologies. Such as more efficient or less expensive production process or a change in the number of competitors in the market.

### → Graph



## Types of Changes in

### Supply

There are following types of changes in supply:

- 1- Movement along supply curve because of change in price.
- 2- Shift in supply curve

### ⇒ Movement along supply curve

It may be

- 1- Contraction  
or
- 2- Expansion



## Expansion

### Explanation

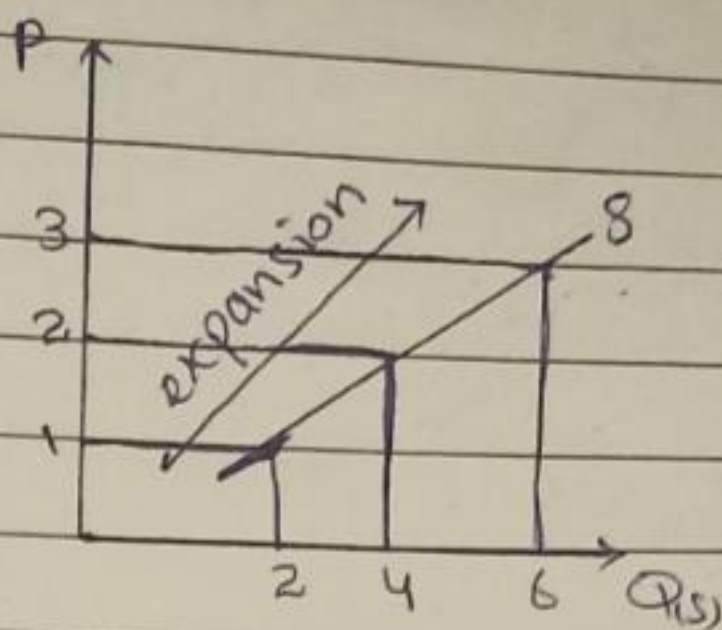
Expansion of supply refers to a rise in the quantity supplied of a commodity due to rise in its price."

"When more quantity is supplied at the same price it is known as an increase in supply. It is due to rise in quantity supply ( $Q_s$ )."

### Table

Price	$Q_s$
1	2
2	4
3	6
4	8



GraphContractionDefination

"When the price of commodity decreases, the quantity supplied ( $Q_s$ ) of it also decreases it is called the contraction of supply."

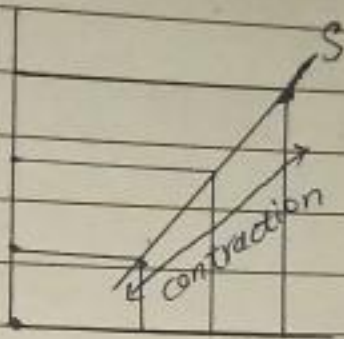
Table

Price

 $Q_s$



## Graph



## Explanation :-

When the price of a commodity decreases its quantity supply ( $Q_s$ ) also decreases. This is called contraction in supply as shown in graph.

## Shift in supply curve :-

It may be

Rise in supply  
or

Fall in supply

## Rise in Supply

It may be of two types

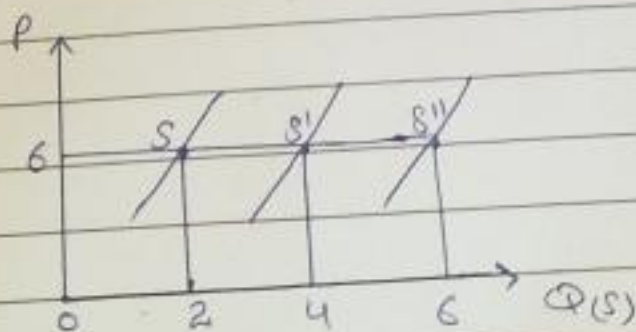
### Type-I

When prices remain constant and quantity supplied increases due to some other factors it is rise in supply.

Table :-

Price	$Q(S)$
6	2
6	4
6	6

Graph :-





## Explanation

"When price remains constant the curve shifts from  $S$  to  $S'$  and then to  $S''$ . This is a rise in supply."

## Type II

### Definition

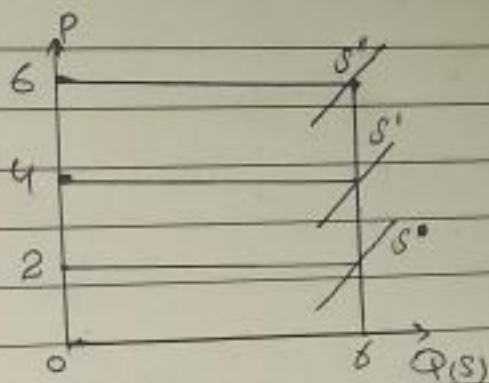
"In this type of rise the price of commodity decreases but quantity supplied remains constant due to some other factors and does not take any response of increase in price."

### Table

Price	Q(s)
6	6
4	6
2	6



## Graph :-



## Explanation

Due to increase in price the supply curve shift from  $S$  to  $S'$  and then  $S''$  as shown in graph.

## Price Elasticity of Supply

### Definition

Price elasticity of supply is defined as percentage change in quantity supplied caused by a given



percentage change in price of commodity.

### Formula

$$P_{ES} = \frac{\Delta Q_s}{\Delta P} \times \frac{P}{Q_s}$$

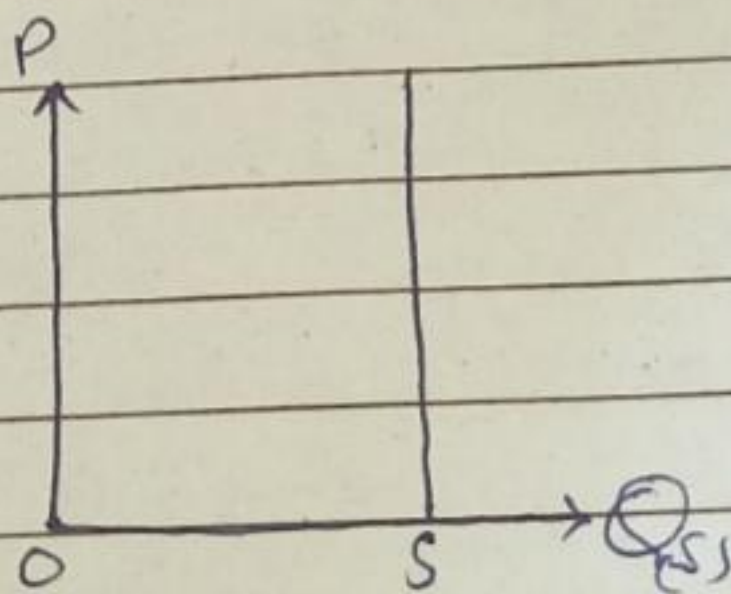
### Cases of $P_{ES}$

There are following cases of  $P_{ES}$ .

#### $P_{ES} = 0$ , Zero Elasticity

If the change in price does not effect the quantity supplied and quantity supplied remain constant. It is known as zero elasticity.

#### Graph



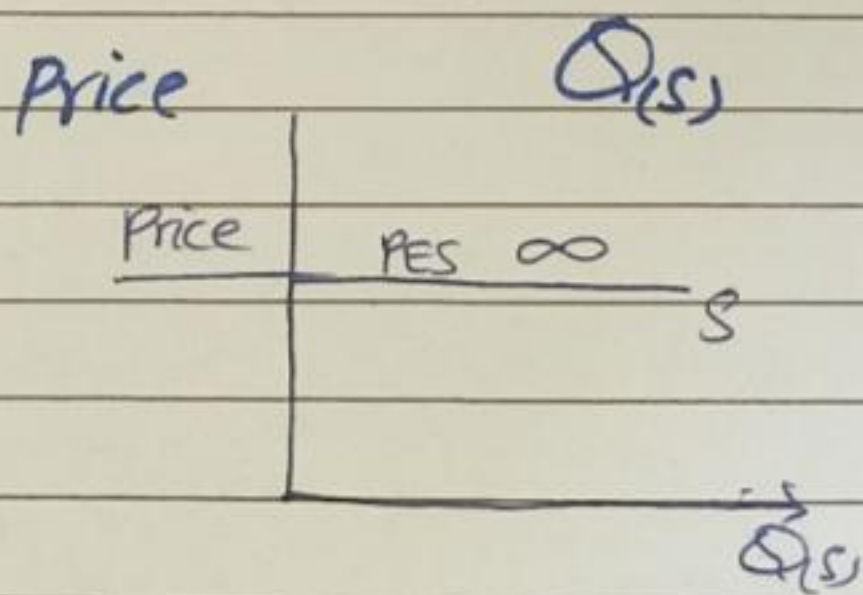


Explanation

As the supply curve is parallel to y-axis. This is also known extreme situation.

$$P_{ES} = \infty \text{ or } \underline{\text{Infinite Elasticity}}$$

If the quantity supplied reduces to zero at a slight decrease in price and the quantity supplied extends to infinity at a slight increase in price - The elasticity will be infinite.

GraphExplanation

The curve is horizontal to x-axis. This is an exception case.



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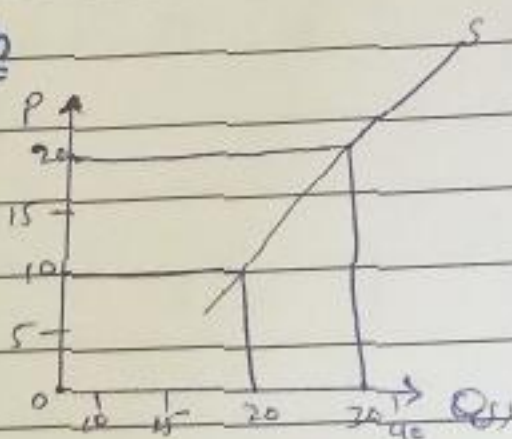
$$\underline{\underline{PES < 1}}$$

If the ration of change in supply is less than price elasticity is said to be less than unity.

Table

Price	$Q_s$
10	20
20	30

Graph





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## Explanation :-

The direction of curve shows that the price elasticity of supply is less than unity. As if it is extended downward it will cross x-axis.

$P_{Es} > 1$

If the ratio of change in supply is greater than that of price - Price elasticity of supply is said to be greater than unity.

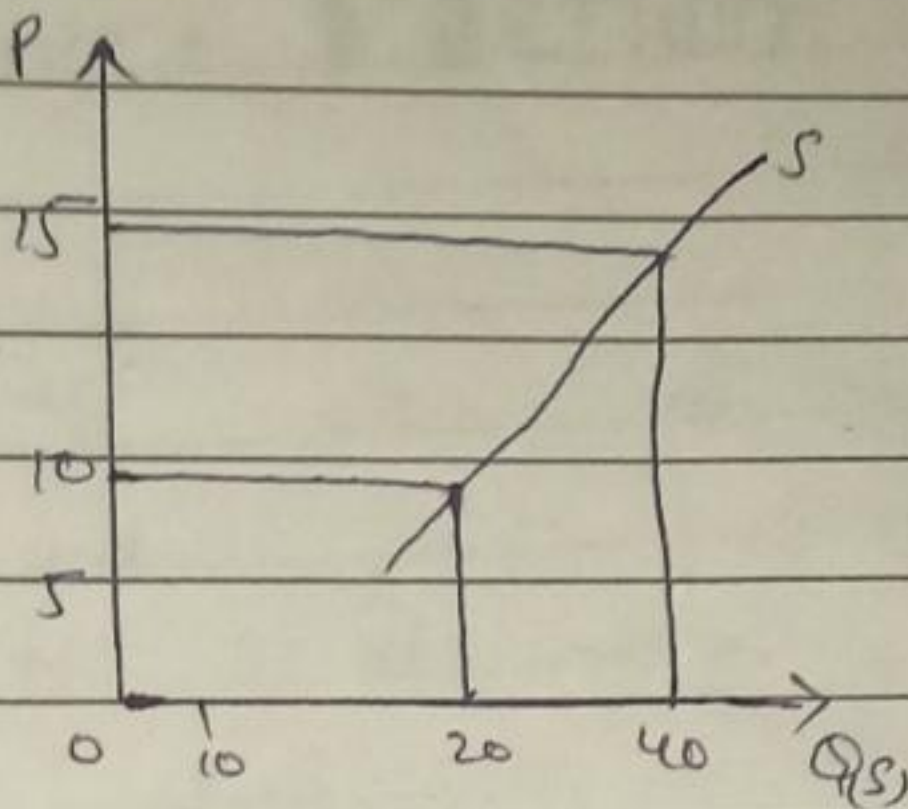
Table

price	Q <sub>s</sub>
10	20
15	40



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## Graph



## Explanation :-

According to SS curve, elasticity is greater than unity. If the curve extend it will cross y-axis.



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## Unity Method

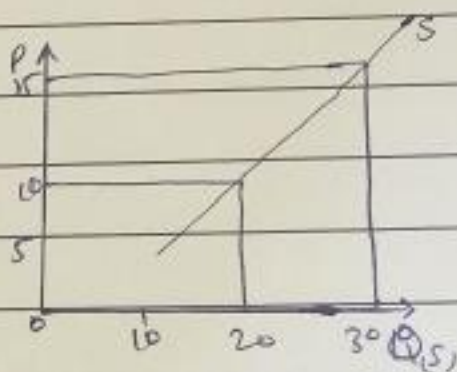
$$P_{ES} = 1$$

If ratio of change in supply and price is equal elasticity of supply is said to be equal to unity.

Table

Price	$Q_s$
10	20
15	30

Graph





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## Explanation :-

One half increase  
in price causes one half  
rise in supply.

## Cases of $P_{ES}$

Elasticity of supply may be

- $P_{ES} = 1$
- $P_{ES} > 1$
- $P_{ES} < 1$
- $P_{ES} = \infty$
- $P_{ES} = 0$