



**JECRC Foundation**



**JAIPUR ENGINEERING COLLEGE  
AND RESEARCH CENTRE**

# JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTER

Class – B.Tech Civil ( IV SEM)

Subject – Managerial Economics & Financial Accounting  
(MEFA)

Unit – 3

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# VISION AND MISSION OF INSTITUTE

## VISION OF INSTITUTE

To become a renowned centre of outcome based learning and work towards academic professional ,cultural and social enrichment of the lives of individuals and communities

## MISSION OF INSTITUTE

Focus on evaluation of learning ,outcomes and motivate students to research aptitude by project based learning.

- Identify based on informed perception of indian ,regional and global needs ,the area of focus and provide platform to gain knowledge and solutions.
- 
- Offer opportunities for interaction between academic and industry .
- Develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders may emerge.

# VISION AND MISSION OF DEPARTMENT

## **Vision**

To become a role model in the field of Civil Engineering for the sustainable development of the society.

## **Mission**

- 1)To provide outcome base education.
- 2)To create a learning environment conducive for achieving academic excellence.
- 3)To prepare civil engineers for the society with high ethical values.

# Introduction, Objective and Outcome of MEFA

## Objective:

The primary purpose of the study of Fluid mechanics is to develop the capacity to understand important basic terms used in fluid mechanics, understand hydrostatics and buoyancy with practice of solving problems. Student could be able to understand Kinematics of flow and fluid dynamics, Bernoulli's equation and laminar flow with practice of solving problems in practical life for the benefit of society and mankind.

## Outcomes

- To understand the basic concepts of economics.
- To understand the relation between demand and supply.
- To learn the concepts of production, cost analysis and market supply strategies.
- To understand financial statement analysis.

# THEORY OF PRODUCTION



# PRODUCTION FUNCTION

- The production function can be algebraically expressed in an equation in which the output is the dependent variable and inputs are the independent variables. The equation can be expressed as
- $q = f(a, b, c, d, \dots, n)$  where 'q' stands for the rate of output of given commodity and a, b, c, d, ..., n, are the different factors (inputs) and services used per unit of time



# TYPE OF PRODUCTS

1. Total product
2. Average product
3. Marginal product



# TOTAL PRODUCT

**Total product is the total output resulting from the efforts of all the factors of production combined together at any time. If the inputs of all but one factor are held constant, the total product will vary with the quantity used of the variable factor**





▪ when one unit of labour is employed, the total product is 100 units. When two units of labour are employed, the total product rises to 210 units. The total product goes on rising as more and more units of labour are employed. With 10 units of labour, the total product rises to 760 units. When 11 units of labour are employed, total product falls to 740 units



# AVERAGE PRODUCT

- **Average product is the total product per unit of the variable factor. When one unit of labour is employed, average product is 100, when two units of labour are employed, average product rises to 105.**



# MARGINAL PRODUCT

- **Marginal product is the change in total product per unit change in the quantity of variable factor. In other words, it is the addition made to the total production by an additional unit of variable factor. For example, the MP corresponding to 4 units is given as 110 units. This reflects the fact that an increase in labour from 3 to 4 units, increased output from 330 to 440 units**



Table 1 : Product Schedule

Quantity of labour	Total Product (TP)	Average Product (AP)	Marginal Product (MP)
(1)	(2)	(3)	(4)
1	100	100.0	100
2	210	105.0	110
3	330	110.0	120
4	440	110.0	110
5	520	104.0	80
6	600	100.0	80
7	670	95.7	70
8	720	90.0	50
9	750	83.3	30
10	760	76.0	10
11	740	67.2	-20

# RELATIONSHIP BETWEEN AVERAGE PRODUCT AND MARGINAL PRODUCT

- when average product rises as a result of an increase in the quantity of variable input, marginal product is more than the average product.
- when average product is maximum, marginal product is equal to average product. In other words, the marginal product curve cuts the average product curve at its maximum.
- when average product falls, marginal product is less than the average product.





# DEFINATION OF PRODUCTION

- **Production is the organized activity of transforming resources into finished products in the form of goods and services; and the objective of production is to satisfy the demand of such transformed resources.**

