# SOS IN COMPETER SCIENCE & APPLICATION JIWAJI UNIVERSITY

Class: MBA (E-Commerce) II Semester

**Subjet: Managerial Economics** 

Paper Code: (205)

**Topic: (i) Production function** 

(ii)Incremental cost

#### **Production Function**

A Production function relates inputs to outputs. It specifies the maximum possible output that can be produced for a given amount of inputs or, alternatively the minimum quantity of inputs necessary to produce a given level of output. Production functions are determined by the technology available to the firm.

# Production function (Input – Output Relationship)

Production function develops a physical relationship between inputs and outputs. It is a relationship between the quantity of output and the quantities of different inputs used in the process.

## Input -Output Relationships

▶ The production function specifies a flow of output resulting from the flow of inputs during a specified period of time. A production function thus involves a wide range of activities from the plant location to distribution of output by the marketing division of an organisation.

# Factors Affecting Production

▶ Technology: A firm's is production behaviour is fundamentally determined by the state of technology. Existing technology sets upper limit for the production of the firm, irrespective of the nature of output, size of the firm or the kind of Management.

## Factors Affecting Production

Inputs: There are wide variety of input used by the firms like various raw material labour services of different kinds, machines tools, building etc. All inputs used in production are broadly classified into 4 categories i.e. labour, land capital and entrepreneurship.

#### Types of Production function

- There are four types of production function:
- 1. Fixed Proportion production function
- 2. Variable Proportion production function
- 3. Linear homogeneous production function
- 4. Cobb Douglas production function

#### Incremental cost

The incremental cost refers to the additional cost that a company incurs in undertaking certain action such as expanding the level of production or adding a new variety of product to the product line, etc.

▶ The concept of incremental cost is quite similar to the concept of marginal cost, but with a relatively wider connotation. The marginal cost refers to the additional in the total cost due to the production of one more unit of a product, generally the next unit. But the incremental cost refers to the additional cost incurred in taking a certain action.

#### Incremental cost

The firm incurs the incremental cost when it undertakes any of the activities:

changing the product line, introducing a new product, replacing obsolete machinery or equipment, replacing the old methods of production with the new one, etc.