Aspects of Marginal Productivity:

The three different aspects of marginal productivity are:

1. Marginal Physical Productivity (MPP)
2. Marginal Revenue Productivity (MRP)
3. Value of Marginal Productivity (VMP)

1. Marginal Physical Productivity (MPP): In the words of M. J. Ulmer," Marginal Physical Productivity may be defined as the addition to total production resulting from the employment of one more unit of a factor of production, all other things being constant."It means marginal physical productivity measures productivity in physical terms. Suppose 5 labourer produce 20 meters of cloth and 6 labourer produce 24 meters of cloth. Thus, the marginal physical productivity of 6th labourer is 4 (24-20) meters. Marginal Physical **Productivity can be expressed through the following formula:**

$$MPP = TPP_n - TPP_{n-1}$$

Where :

MPP =1 Marginal Physical Productivity
TPP_n =Total physical productivity of 'n' units of factor
TPP_{n-1}= Total physical productivity of 'n-1' units of factor

2. Marginal Revenue Productivity (MRP) : In the words of M. J. Ulmer," Marginal Revenue Productivity may be defined as the addition to total revenue resulting from the employment of one more unit of a factor of production, all other things being constant." It measures productivity in

monetary terms. It can be expressed as the product of marginal physical product (MPP) and marginal revenue (MR). It can be written as:

MRP a = MPP a * MP x

Where, a is a factor and x is a commodity

Suppose an additional labourer produces 4 meters of cloth and an additional meter of cloth fetches the additional revenue of Rs. 20. Then, the marginal revenue productivity is Rs. 80 (20 *4).

3. Value of Marginal Productivity (VMP):

- In the words of Ferguson," the value of marginal product of a variable factor is equal to its marginal product multiplied by the market price of the commodity in question."Thus the value of marginal physical productivity is the product of marginal physical product and average revenue (price).

VMP a =MPP a XAR x

Suppose an additional labourer produce 4 metre of cloth and the market price of cloth is Rs 25, then VMP is 4x25=100.

- Since the firm can sell any amount of commodities at the given market price under perfect competition, average revenue is equal to marginal revenue. Thus under perfect competition, MRP is equal to VMP. While under monopoly and monopolistic completion, average revenue is greater than marginal revenue. Thus VMP is greater than MRP under these two market conditions.