Critically examine the marginal productivity theory of distribution.

Ans. The term distribution in economics refers to personal distribution and functional distribution of income. Personal distribution relates to the forces governing the distribution of income and wealth among the various individuals of a country. Functional distribution or „factor share distribution" explains the share of total national income received by each factor of production. Despite these apparent differences between distribution and functional distribution, there is close relation between the two. The personal distribution in a country is ultimately affected by its functional distribution of income.

The Marginal Productivity Theory of Distribution

According to this theory the reward of a factor equals its marginal product. Marginal product also known as marginal physical product is the increment made to the total output by employing an additional unit of a factor keeping all other factors constant. It this increase in output is multiplied by the prevailing price of the product, the result is the marginal value product of that factor (VMP_L). But it is better to measure marginal product of a factor in terms of its marginal revenue product (MRP) which may be defined as the addition made to total revenue resulting from the employment of one more unit of a factor of production, other factors remaining unchanged. As a general rule the marginal revenue productivity of a factor diminishes with the increase in the units of that factor service when in the initial stage the units of a variable factor are employed, keeping the other factors constant, the total revenue product may increase more than proportionately for some time. But sooner or later a time will come when the marginal revenue product will start diminishing and will tend to equal the price of the factor service. This tendency of diminishing MRP follows from the law of variable proportions. A firm operating under perfect competition has to pay the same price (reward) to a unit of the factor which is paid by the industry. In order to have maximum profit it acts on the principle of substitution. The substitution of cheaper factors for the dearer will continue till the marginal revenue productivity of each factor is equal to its price. At this stage the factors of production are employed in their most efficient combination or the least cost combination and the profits of the firm well be maximized. In equilibrium therefore the price of a factor service must equal its marginal revenue productivity.

More over substitution also take place between different units of the same factor service. In the ultimate analysis, however the price of a factor unit is higher than its average revenue productivity, the firms will be incurring losses. As a result some of the firms well leave the industry and there by the price of the factor service will fall to the level of the maximum average revenue productivity. On the contrary, if the price is less than the average revenue productivity the firms well be enjoying extra profits. Attracted by these excess profits, new firms will enter the industry and compete for this factor service. This will tends to push the price upward to the level of average revenue productivity. There can be deviation from this equilibrium position in the short run but in the long run the price of a factor service must equal its marginal and average revenue productivity.

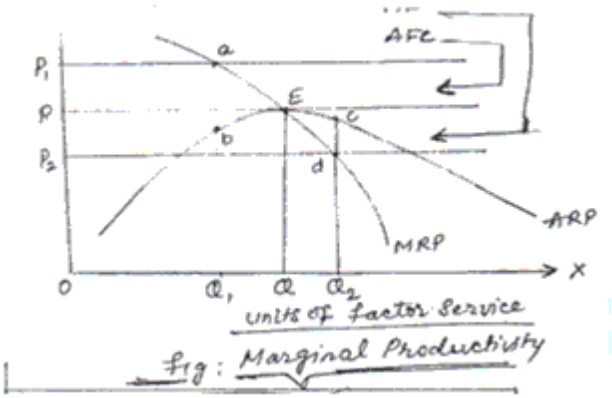

Fig : Marginal Productivity

This is shown in fig. At point E, ARP=MRP each factor service will be paid OP price for OQ units. At OP_1 price, firm will be increasing ab/units los as the price being paid to factor unit is greater than their ARP. This will induce some firms to leave the industry and the factor price would again fall down to E. On the other hand if the factor price falls to OP_2 firms will gaining DC/unit when attracted by it some new firms enter the industry, price will again rise up to OP. These price variations are only possible in the short run, the equilibrium position E will stay on.

Assumption of the theory

1. All unit of a factor service are homogeneous.
2. They can be substituted for each other.
3. Perfect mobility of factors.
4. Perfect competition in the factor & commodity markets.
5. Full employment of factors & resources.
6. Different factor services are divisible.
7. Motivation of profit maximization.
8. Application in the long run.
9. It is based on the law of variable proportions.

Criticisms

1. All units of a factor are not homogeneous.
2. Factors are not perfectly mobile.
3. There is no perfect competition.
4. Factors are not fully employed.
5. All factors are not divisible.
6. Production is not the result of one factor alone.
7. Profit motive is not the main motive.