

Class B.Com-I.

Subject: Business Economics and Environment.

Paper : II

Unit : V

Topic : Factor Pricing:

Factor Price
Demand Supply Equilibrium

Lecture

Sequence
No :

8

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Determination of a Factor price

Demand Supply Equilibrium

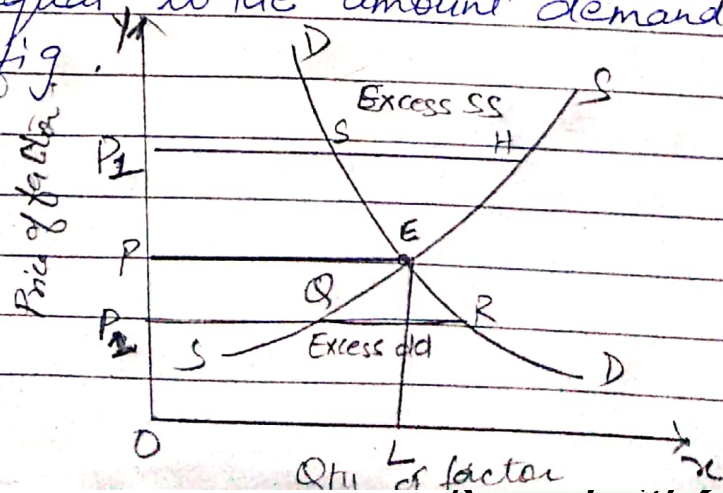
According to Marshall-Hicke version of marginal productivity theory of distribution, price of a factor is determined by demand and supply of a factor. Marshall and Hicke held that the price of a factor of production is determined by both the demand for and supply of the factor, but is be equal to the Marginal Revenue product of the factor.

The demand for a factor of production depends upon its marginal revenue product (MRP) that is also derived demand curve for a factor of production of an industry ^{upward sloping}.

The supply curve of a productive factor is given by the curve showing the amt. of factor offered by the curve showing the amounts of factor offered by ownes of the factor at various factor price and its slopes upward to the right.

So the given demand and Supply curve of a factor, the price of the factor will adjust to the level at which the amt. of the factor supplied is equal to the amount demanded.

This shown in fig.



Equilibrium
 between demand
 for and Supply of a
 factor determines
 the price.

Here DD is the demand curve and SS is the supply curve and SS is the supply curve of the factor. Only at price OP, quantity demanded is equal to the quantity supplied. The price OP is thus determined. The price of a factor cannot be determined at a level higher than or lower than price OP.

i.e. Other than the price where amount ~~deter~~ demanded is equal to the amount supplied
Other two situation:-

In case of Excess supply :- The price cannot be established at the level OP' since at price OP, the quantity offered to supply ($P', +$) of the factor is greater than the quantity demanded $P's$ of it.

As a result, the competition between the owners of the factor will force down the price of the level OP where the quantity supplied is equal to the quantity demanded.

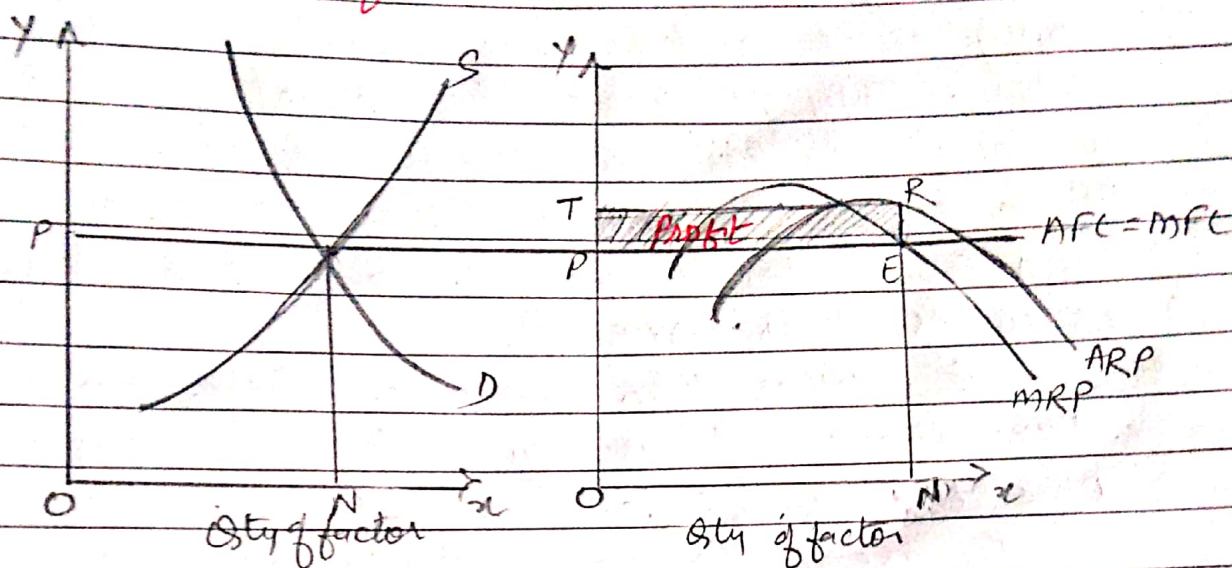
Short run Equilibrium of a firm in factor market:

The price of a factor of production is determined by the interaction of the forces of demand and supply but price is equal to the marginal revenue productivity of the factor. As the fig. the factor price is OP. The firm accepts the price of a factor prevailing in the market as given.

In the short run a firm faces three situations

- ① Abnormal profits
- ② Normal profit
- ③ Losses.

① Abnormal Profit.



At Equilibrium Point - E

Factor price = Marginal Revenue Productivity

$$OP = EN$$

(AFC) Average Factor Cost = EN

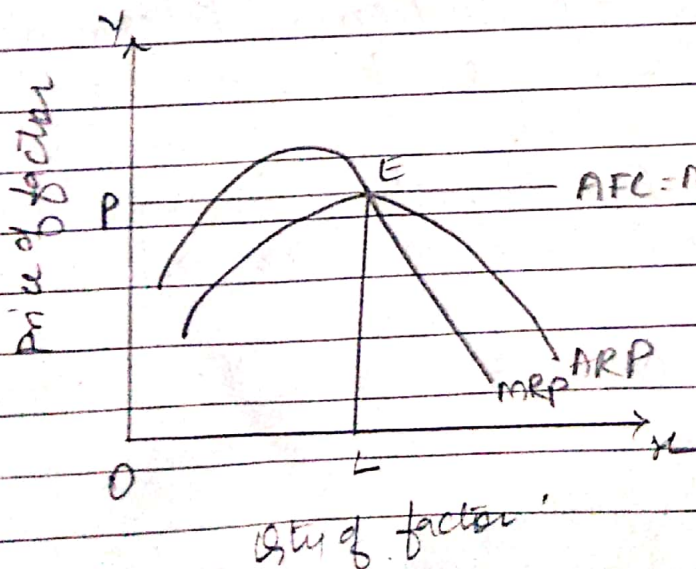
(ARP) Average Revenue

Productivity = RN

Profit per unit = RE

Total profit = Area TREP.

(ii) Normal Profit:

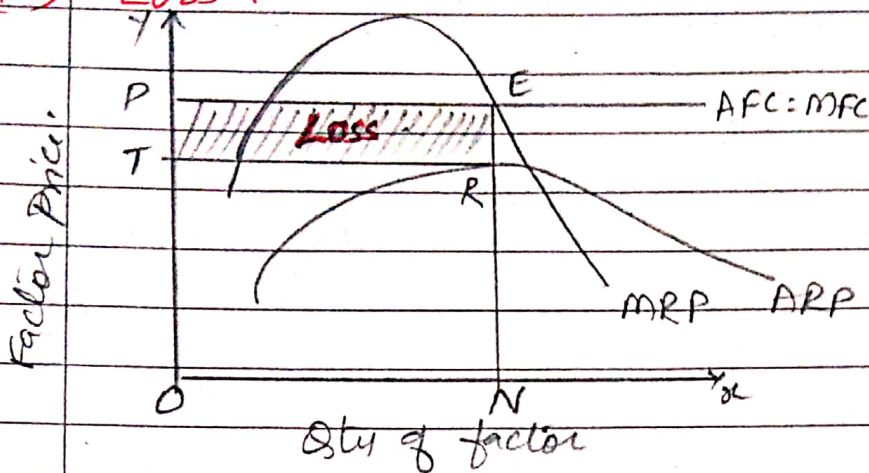


At Equilibrium point E

Average Factor cost
= Average Revenue Productivity.

$$AFC = ARP = OP(EL)$$

This shows Normal Profit.

(iii) **Loss :-**

At equilibrium point E

$$AFC = EL$$

$$ARP = RL$$

$$\text{Loss per unit} = ER$$

$$\text{Total Loss} = \text{Area PERT}$$

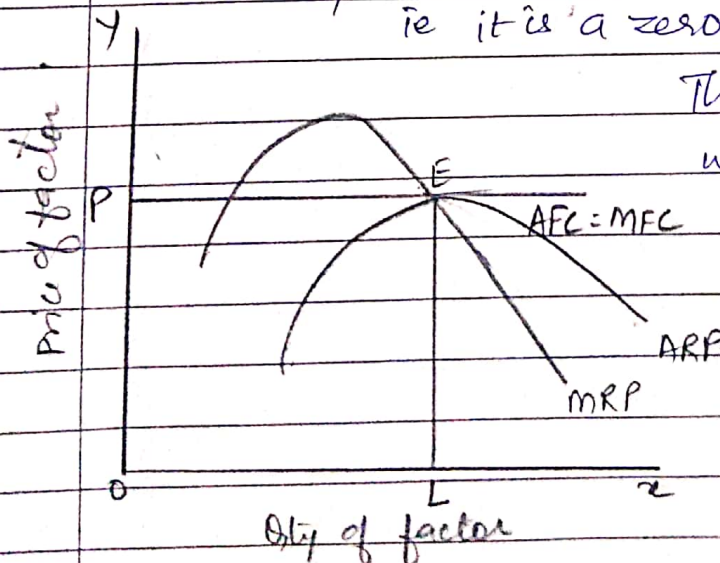
Longrun Equilibrium of Firm in Factor Market:

In long run under competitive condition the firm will earn only Normal profit. If in the long period the firm earns abnormal profits the new firm enters the demand for factors of production will increase, hence the cost of production will increase and super-normal profit will disappear. On the contrary in loss situation, some firms will leave the industry and the loss will disappear. In this way, the firm will earn only normal profit in the long run.

In the long run equilibrium situation :-

$$\text{Factor price} = ARP = MRP = AFC = MFC$$

ie it is a zero profit situation.



Thus, we conclude that the firm will be in equilibrium where the wage is equal to both the ARP and MRP. Under competitive condition, wages tends to equal marginal Revenue productivity as well as average productivity in long run.