CH-10 (Producers Eq.)

Perfect competition.

Explain producers Equilibrium (~~Revenue~~ firms equilibrium) with MR - MC approach.

Producers equilibrium refers to that price and output combination which brings maximum profit to the producers and profit declines as more is produced.

According to MR - MC approach, producers equilibrium refers to the stage of that output level at which:

1) MC = MR
2) MC > MR, after mc is equal to MR o/p level that means mc should cut MR from below.

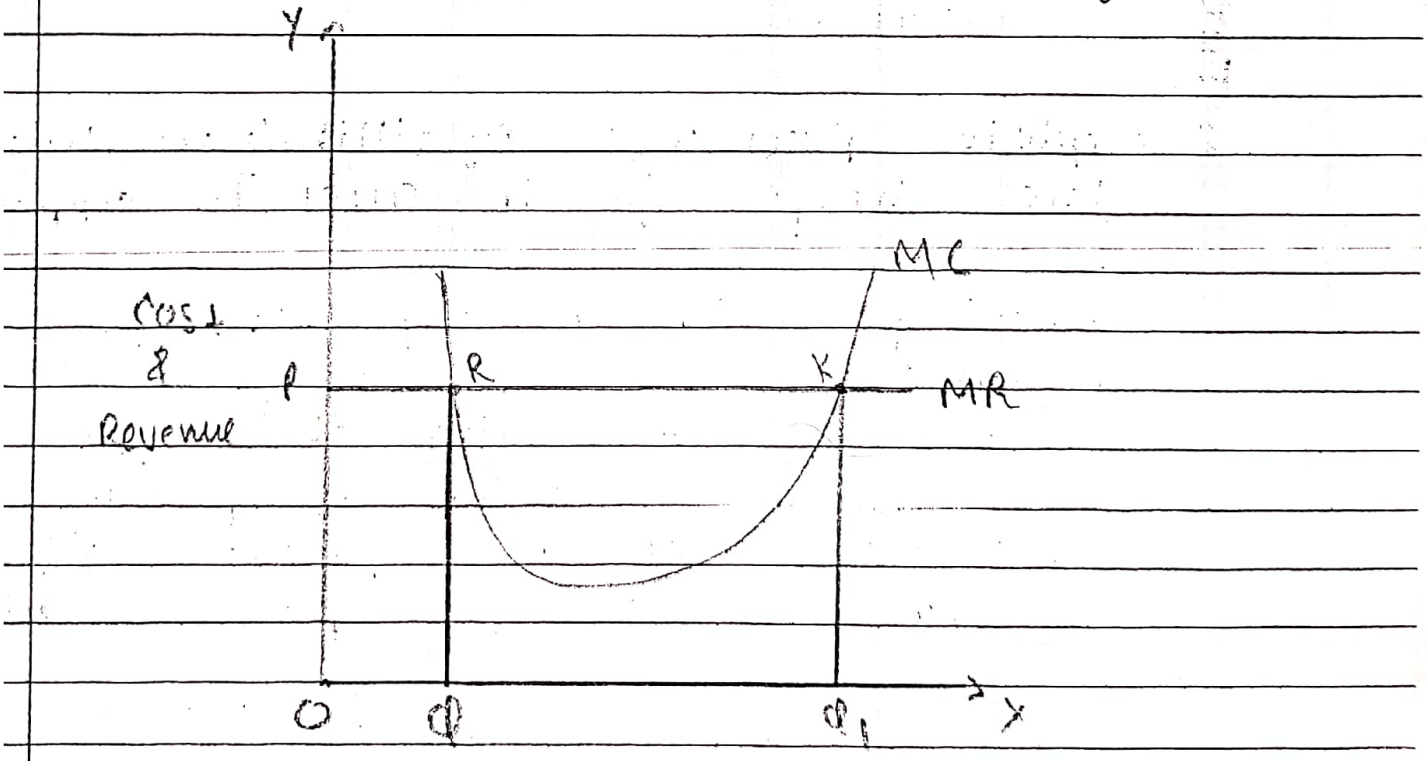
When the price remains constant, firm can sell any quantity of output at a price fixed by the market. Price or AR remains same at all levels of output. Also the revenue from every additional unit (MR) is equal to AR. It means, AR curve is same as MR curve.

Producers aims to produce that level of output at which MC = MR and MC is greater than MR after MC = MR output level.

It is explain with the help of below table and diagram.

Output	Price	TR	TC	MR	MC	Profit (TR - TC)
1	12	12	13	12	13	-1
2	12	24	25	12	12	-1
3	12	36	34	12	9	2
4	12	48	42	12	8	6
5	12	60	54	12	12	6
6	12	72	68	12	14	4

From the above table MC = MR condition is satisfied at ~~at~~ both the output level of 2 units and 5 units. But the second condition ~~MR~~ MC becomes greater than MR is satisfied only at 5 units of output. Therefore producers equilibrium will be achieved at 5 units of output.



On X axis there is an output and on Y-axis there is cost and revenue. MR curve is a straight line parallel to X-axis and MC curve is U shaped.
Producers equilibrium is determined at OQ_1 level of output corresponding to point K because only at poit K the above two conditions are satisfied.

Although MC is equal to MR is satisfied at point R, but it is not the point of equilibrium as it satisfies only the 1st condition.

So, the producers will be at equilibrium at point K when both the conditions are satisfied.

Explain producers equilibrium with the help of TR and TC approach.

According to TR-TC approach, producers equilibrium refers to stage of that output level at which the difference between TR and TC is positively maximise and total profit falls as more units of output are produced.

So, two essential conditions for producers eq. are:

1) The difference between TR and TC

is positively maximised.

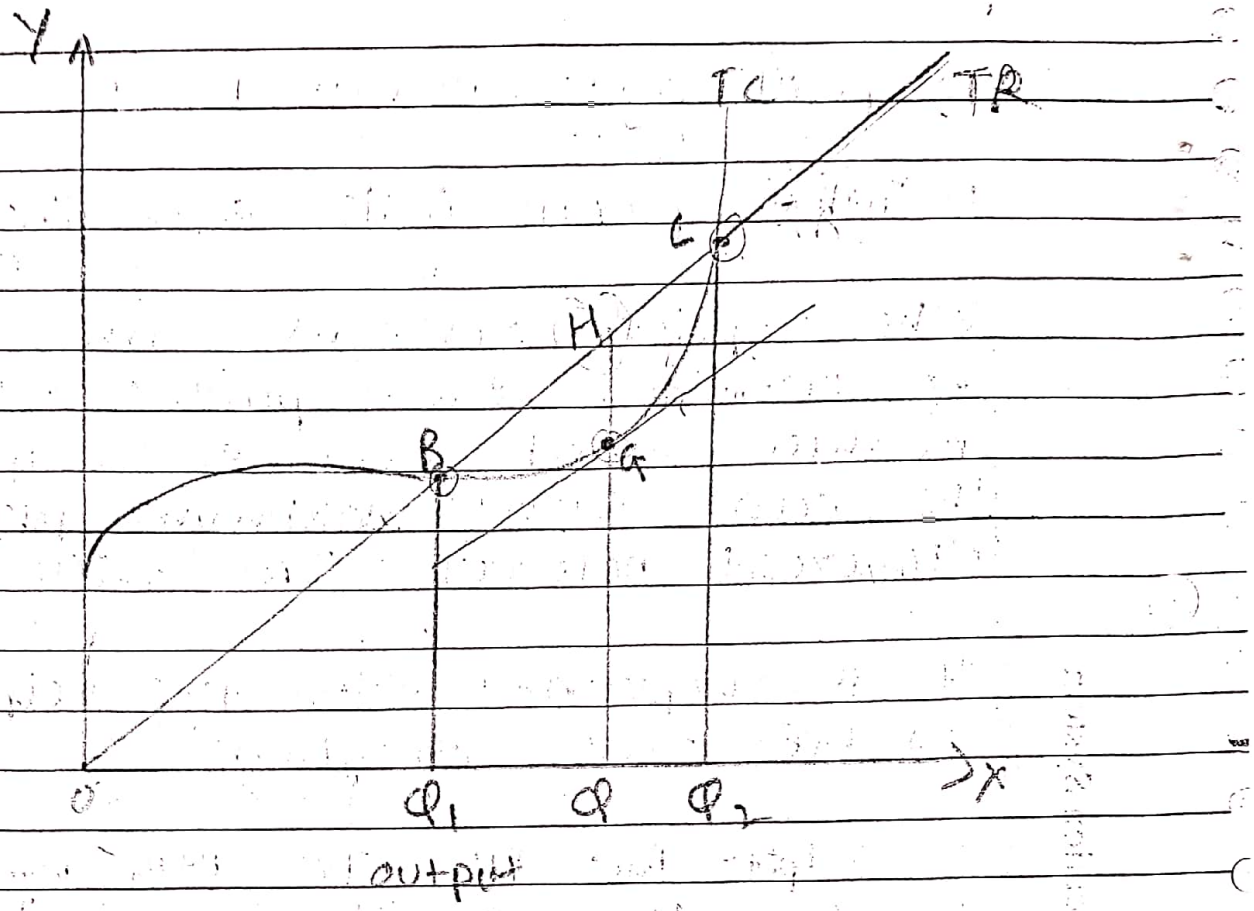
2) Total profit falls after that level of outp

When price remains same at all level of output, each producers aims to produce that level of output at which he can earn maximum profit. i.e. when different between TR and TC is maximum

It is explained with the help of below table and diagram

Output	Price	TR	TC	Profit	Remarks
0	10	0	5	-5	Profit rise with increase in output
1	10	10	8	2	
2	10	20	15	5	
3	10	30	21	9	
4	10	40	31	9	Equilibrium
5	10	50	42	8	Profit falls with increase in output
6	10	60	54	6	

According to the above table, the maximum profit of ₹9 can be achieved by producing either 3 units or 4 units. But the producer will be at equilibrium at 4 units of output because at this level both the condition of producers equilibrium are satisfied.



- On X-axis there is an output and on Y-axis there is total cost & total revenue
- from the above diagram, we can say that producers equilibrium is determined at OQ level of output when vertical distance between TR & TC curve is maximum.
- At this level of output, tangent to TC curve (at point G) is parallel to TR curve and difference between both the curve is represented by GH which is maximum.
- A quantities smaller or larger than OQ such as OQ_1 and or OQ_2 units, tangent to TC curve would not be parallel to the TR curve. so the producer is at equilibrium at OQ units of output.