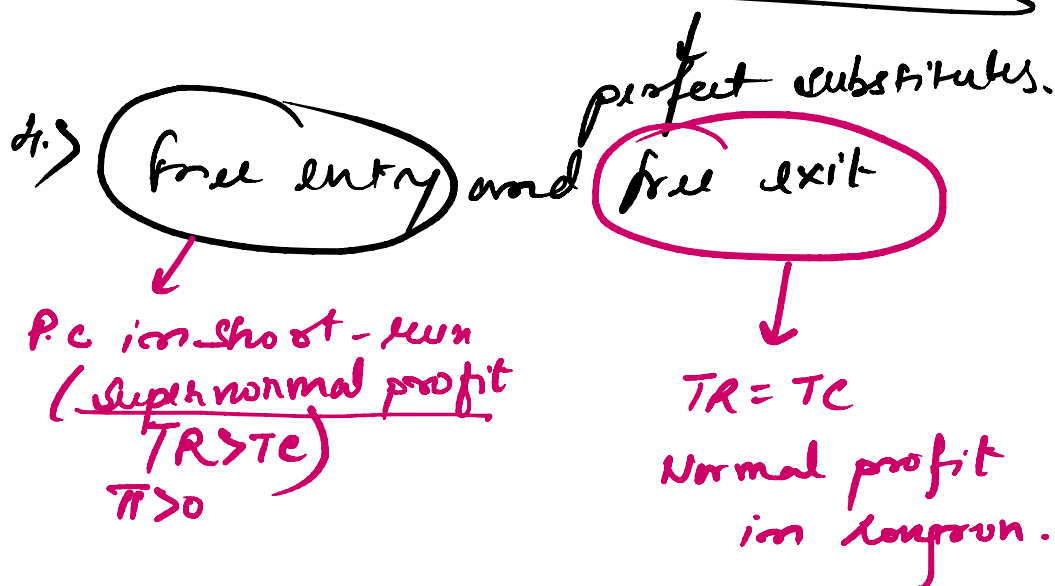


- Market \rightarrow
1. Perfect Comp
 2. Monopoly
 3. Monopolistic Comp
 4. Oligopoly.

Perfect Comp:

- features]
1. \rightarrow Infinite no of buyers & sellers
 2. price takers. Prices are constant & given.
 3. Products identical or homogeneous



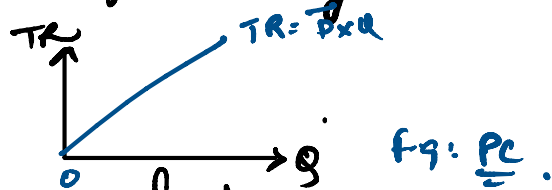
Revenue curve under P.C.

1. $TR = P \times Q$

In a PC market : Price is fixed say \bar{P} .

then $TR = \bar{P} \times Q$
i.e. $TR \propto Q$

\therefore TR in PC is an upward sloping



$\therefore TR$ in a PC is an upward sloping straight line through origin.

$$2. \textcircled{AR} = \frac{TR}{Q} = \frac{\bar{P} \times Q}{Q} = \bar{P} = \text{const}$$

\hookrightarrow relation b/w P and $Q \rightarrow$ Demand curve.

\therefore AR curve / Demand curve of PC firm is horizontal.



3. MR \rightarrow change in TR next change in Q by 1 unit.
 $MR = \frac{\Delta TR}{\Delta Q}$

$\frac{Q}{P}$

$\rightarrow Q_1$

$$TR_1 = \bar{P} \times Q_1 \checkmark$$

$\rightarrow Q_2$

$$TR_2 = \bar{P} \times Q_2 \checkmark$$

$$\begin{aligned} \Delta TR &= TR_2 - TR_1 \\ &= \bar{P} \times Q_2 - \bar{P} \times Q_1 \end{aligned}$$

$$\Delta TR = \bar{P} (Q_2 - Q_1)$$

$$\Delta TR = \bar{P} \Delta Q$$

$$\frac{\Delta TR}{\Delta Q} = \bar{P}$$

$$\boxed{MR = \bar{P}} \rightarrow \text{in PC}$$

\therefore in PC

$$\hookrightarrow \boxed{AR = MR = \bar{P}}$$



→ $MR = MC$

→ P

Profit maximisation under short run PC market

↳ short-run equilibrium.

Profit $\pi = TR - TC$
at maximum profit

$$\Delta \pi = 0$$

$$\frac{\Delta TR}{\Delta Q} - \frac{\Delta TC}{\Delta Q} = 0$$

$$MR - MC = 0$$

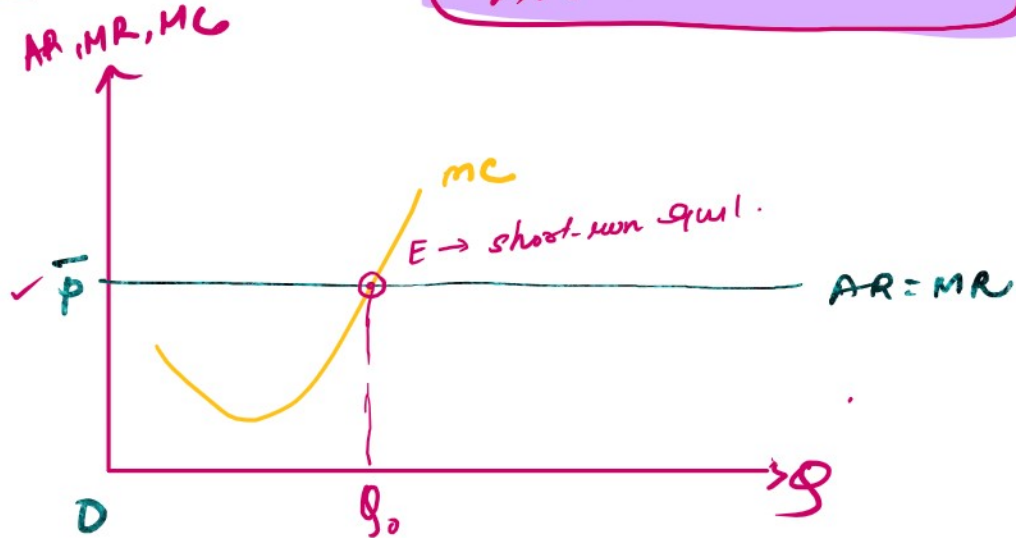
$$MR = MC$$

in PC

~~MR = MC~~

$$AR = MR = MC = \bar{P}$$

Diagram:

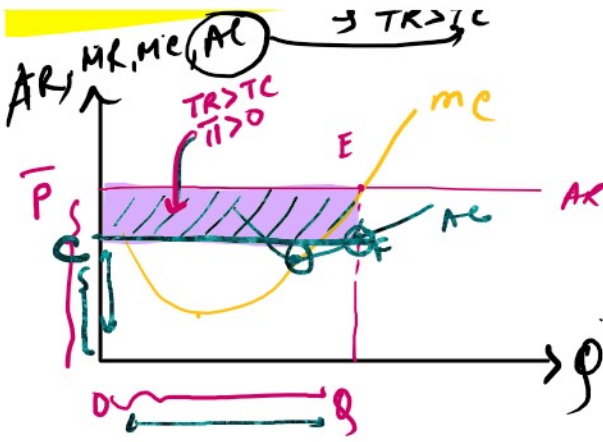


In short-run
Supernormal
Case 1: Profit ($\pi > 0$)

$AR = MR = MC < AC$
 $TR > TC$

Case 2: Normal Profit

AR, MR, MC, AC
 $(TR = TC) \Rightarrow \pi = 0$



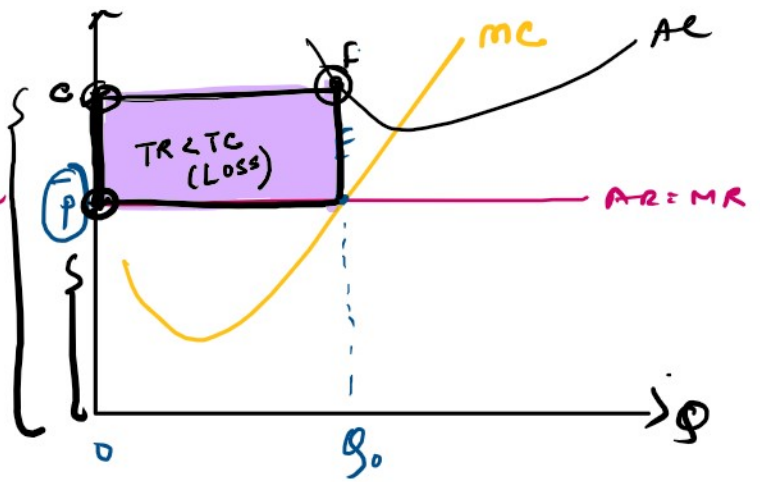
$$TR = \square O\bar{P}E Q_0$$

$$TC = \square O C F Q_0$$

$$\bar{\pi} = TR - TC$$

$$= \text{area } \square C\bar{P}E F > 0$$

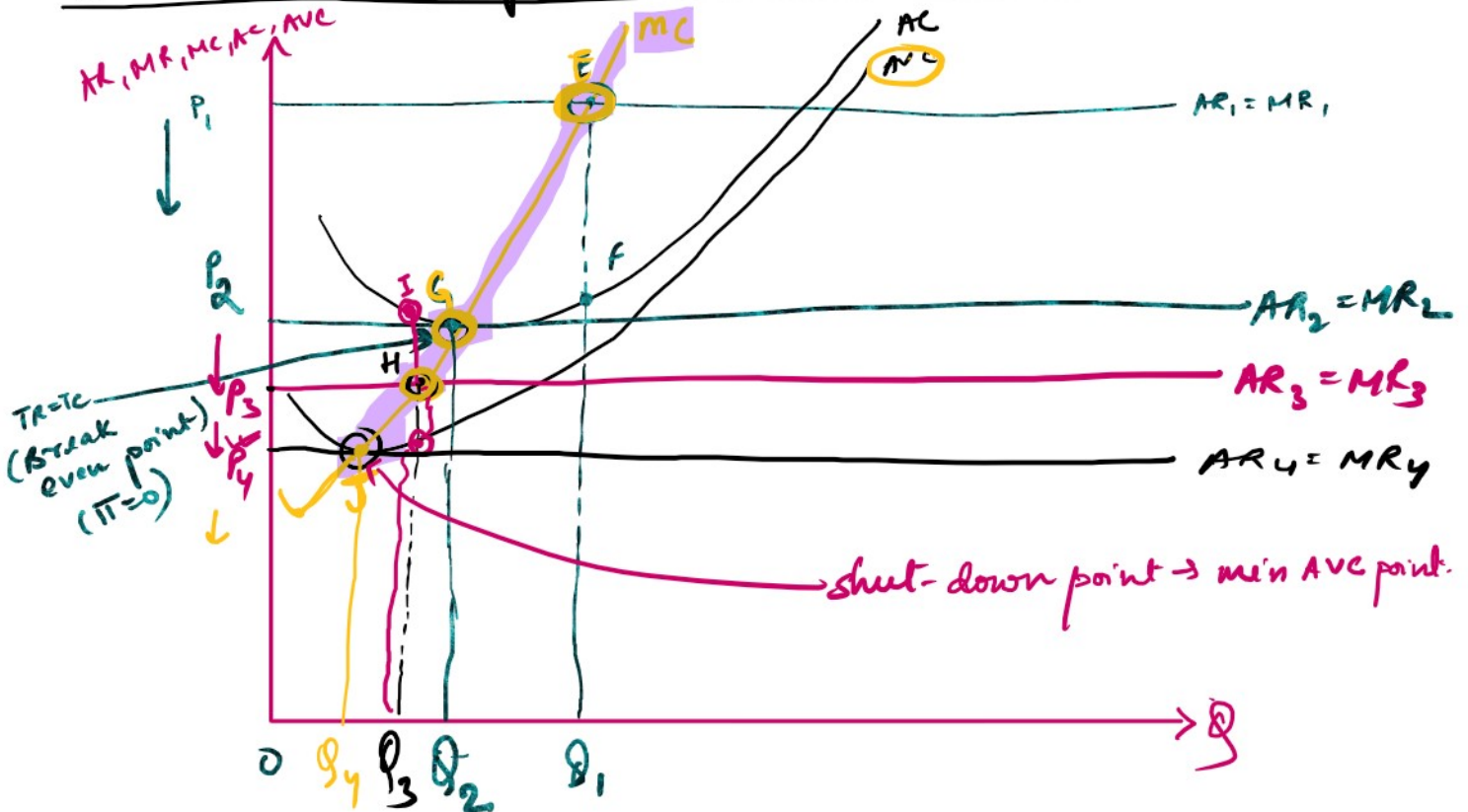
(supernormal profit)



(ii) $TR = \text{area } \square O\bar{P}E Q_0$
 $TC = \text{area } \square O C F Q_0$
 $\bar{\pi} = 0$ (Normal profit).

(iii) $TR = \text{area } \square O\bar{P}E Q_0$
 $TC = \text{area } \square O C F Q_0$
 $\bar{\pi} = \square O\bar{P}E Q_0 - \square O C F Q_0 < 0$
 (Loss)

Short-run Supply curve in a PC market:



∴ Joining point J, H, G and E we can derive the short-run supply curve of a P.C. ^{firm} where it is defined as the portion of SMC curve which lies above the min AVC.

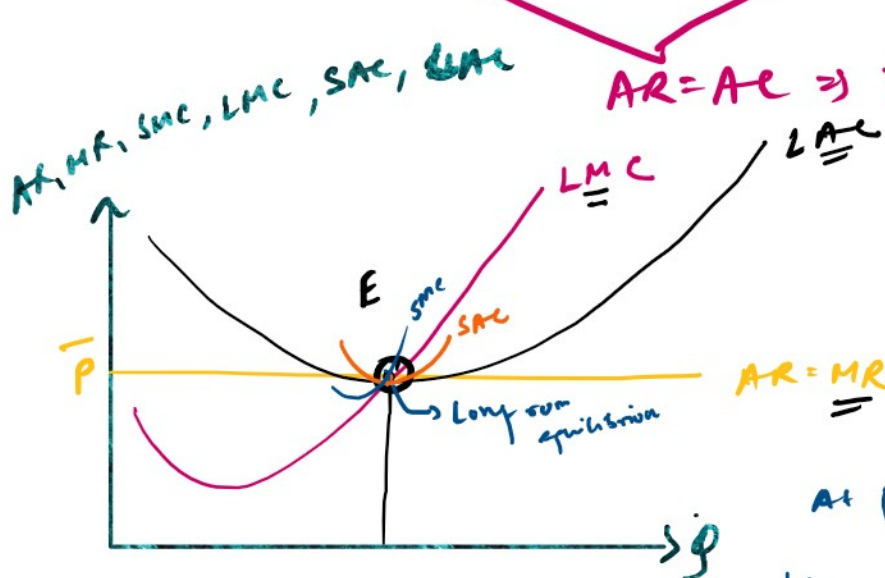
⇒ Market supply curve in a SR PC market can be derived by taking horizontal summation of all the supplies by individual PC firms at given market price.

Long-run equilibrium in a PC market.

(i) $MR = MC$

(ii) MR should cut MC from below.

(iii) $AR = MR = LMC = SMC = LAC = SAC$



$AR = AC \Rightarrow TR = TC \Rightarrow \pi = 0$

normal profit (Long-run equil)

At P = E $\Rightarrow TR = TC \therefore \pi = 0$
(normal profit)

ii. at E, $AR = MR = LMC = SMC = LAC = SAC$

→ q

ie, at E:

Normal

$$MR = MC = SMC = SAC = LAC = AR = \bar{P}$$

— * —

Monopoly

① **Single seller** & many buyers

② Price maker.

Can also price discriminate.

③ Products are heterogeneous
(non-identical)

No substitutes.

④ Barrier / Restrictions to enter
a) copyrights b) Patents

c) distance d) access to critical inputs

(e) **IRS** ⇒ economies of scale

↓
Average cost of production will decrease.

↓
This firm with cost adv
can charge **lower price**

↓
other small firms cannot compete with the firm (IRS)

Natural monopoly

other small firms cannot compete with the firm (IRS)
↳ leaves the market

↓
IRS firm only seller remains

