Chapter 11 pure competition in the Short Run

(*) Market structures :-

(1) pure compitition → سوق المنافسة التامة

(2) pure monopoly → سوق الاحتكار التام

(3) Monopolistic compitition → سوق المنافسة الاحتكارية

(4) Oligopoly → سوق احتكار القلة

(*) pure compitition : سوق المنافسة التامة

* الخصائص :-

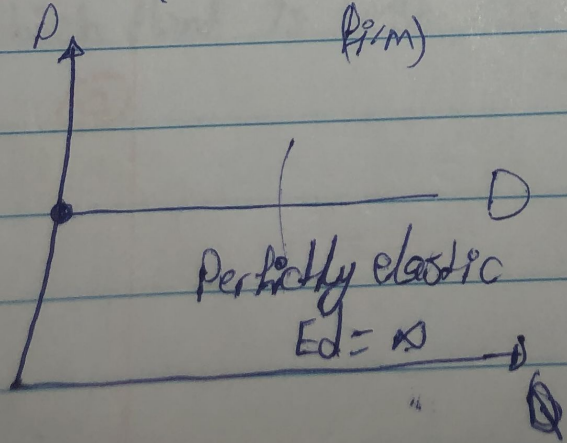
* عدد المنتجين كبير جداً .

* السلع التي يتم انتاجها هي سلع متجانسة (متطابقة تماماً)

* حرية الدخول والخروج لهذا السوق

* price taker : عدم القدرة على التحكم بالسعر

المنتج ملغى والقدرة على التحكم بالسعر (الي بتحكم بسعر السلعة هو السوق نفسه) .



④ Total Rev (TR), Average Rev (AR), and Marginal Rev (MR).

→ Total Rev = P * Q

→ Average Rev (AR) = $\frac{TR}{Q} = \frac{P*Q}{Q} = P$

→ Marginal Revenue = MR → $\frac{\Delta TR}{\Delta Q}$

↳ Additional Revenue from selling one more unit

المزيد من الإيرادات الناتجة عن بيع وحدة إضافية

$MR = \frac{\Delta TR}{\Delta Q} = \frac{\Delta (Q*P)}{\Delta Q} = P$

For pure compitition:

$AR = MR = P$

⑤ Profit Maximization in the short run: ~~total Rev~~

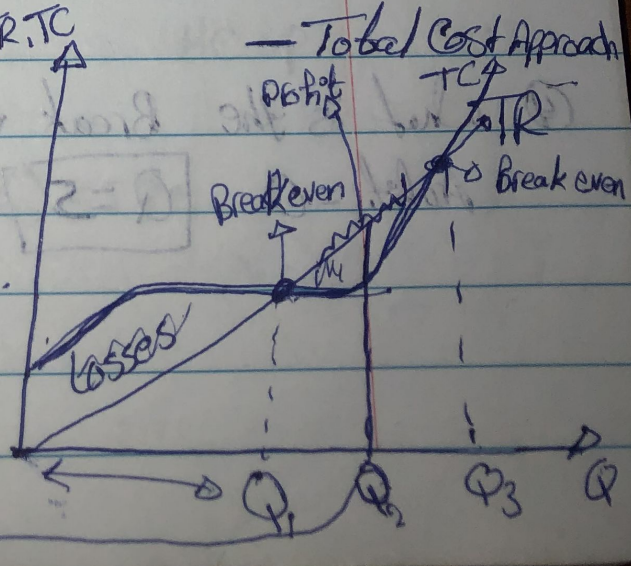
~~Total Rev~~

→ Profit = Total Rev − Cost.

TR = P*Q

TR > TC → Profit.

~~TR < PQ~~ TC > TR → Losses



اعلى قيمة للربح.

example: Assume that a purely Competition from has the following data:-

TR−TC

Outputs(Q)	TR (P*Q)	TC مع طي بالسؤال	profit
1	200	250	200 − 250 = −50
2	400	300	100
3	600	450	150
4	800	700	100
5	1000	1000	0
6	1200	1400	−200

① Assume a market price(P) is $200, fill in the columns in the above table.

② what is the profit Maximization outputs?

3 ~~150~~ ← اعلى قيمة للارباح

بنشوف اعلى قيمة للارباح وبمشي لعندالي مقابلها بال outputs.

③ What is the form ~~maximization~~ Maximum profit?

150

④ what is the Break even point?

Profit = 0 Q = 5

⊛ Profit maximization : Marginal Rev = Marginal cost

* to max profit MR = MC.
→ if MR > MC → Increase production to Increase profit.
→ if MR < MC → decrease production to Increase profit
→ If MR = MC → The firm Maximizing profit.

Example

Q	AFC	AVC	ATC	MC
3	100	70	170	60
4	75	73	145	80
5	60	80	140	110
6	50	90	140	140
7	43	103	146	180
8	38	119	156	230
9	33	138	171	290

Profit = TR − TC
AR = MR = P

① If the Market price of the firm is 230$, what will be the profit Maximization output, what economic profit or losses for firm relize?

⇒ to Maximize profit MR = MC , MC = P
output profit Q = 8
Profit = Q(P − ATC) = 8 (230 − 156) = 592.

(2) what is the BE (Break even) output?

at Break even : MC = ATC

Q = 6 when MC = ATC = 140

(3) If Market price decrease to $110 : Should the firm still produce or shut down?

profit = Q (P - ATC)

* P > ATC ⇒ profit
* P < ATC ⇒ losses

but P > AVC still produced

If P < ATC & P < AVC ⇒ shutdown.

P = MC at Q = 5

ATC = 140 AVC = 80

P < ATC ⇒ losses
(110) (140)

but P > AVC ⇒ still produced

(4) If market price to $60 : Should the firm still produced or shutdown? P = MC at Q = 3

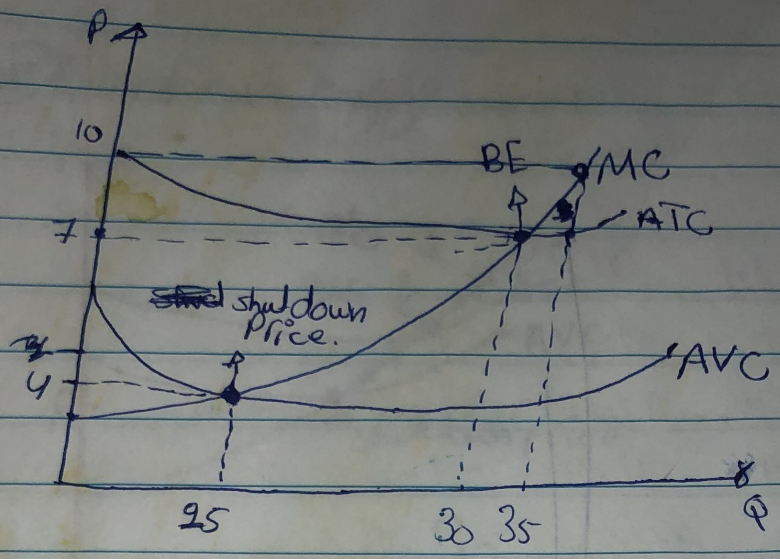
ATC = 170 AVC = 70

P < AVC
60

60 < 170 ⇒ losses

P < AVC
60 70
shutdown

Losses = TFC * Q = 100 * 3 = 300



① If Market price is 10, what output should the firm produce to max profit? what is the economic profit the firm relize?

at $P = 10$ $Q = 35$

to Maximum profit $P = MC$.

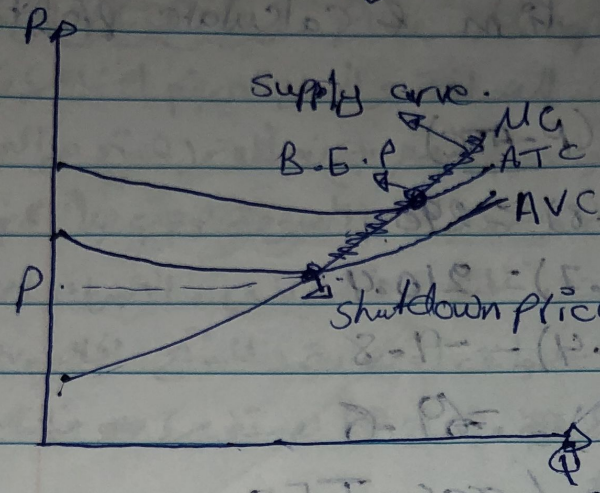
$$\text{Profit} = Q(P - ATC)$$
$$= 35(10 - 7)$$
$$= 35(3) = \$105$$

② What is the B.E out put?

BE:- $MC = ATC$ $Q = 30$.

③ what is shutdown price? shutdown price is $MC = AVC$ at $Q = 25$

(A) Short run supply curve:-



→ supply curve: MC curve above minimum AVC.

Example

Q	AFC	AVC	ATC	MC
4	25	75	100	60
5	20	75	95	70
6	16.6	75	91.6	80
7	14.3	77.14	91.4	90
8	12.5	81.25	93.7	100
9	11.11	86.6	97.8	130
10	10	93	103	150

* The table below: complete the Short Run supply scheduel for the firm & calculate profit:-

Price	Qs	profit = Q(P-ATC)
130	9	9(130-97.8) = 290
116	8	8(116-93.7) = 210.4
90	7	7(90-91.4) = -9.8
80	6	6(80-91.6) = -69.6
70	0	losses = TFC

Shutdown

do Maximize profit : MC = P

⑤ The producer should shut down if: P < Minimum AVC

P < 74

* TFC = AFC * Q

= 20 * 5

= 100