Final:

COSTS OF PRODUCTION.

Date:

→ economic profit.
→ normal profit.
→ law of diminishing returns.
→ short run and long run cost
→ cost & why cost?
→ explicit cost.
→ implicit cost.
→ accounting profit

* Why costs exist?
  - Cost exist due to shortage of resources and alternatives.
  - If scarcity fades, cost declines.
  - → we have salt, which is less expensive. It's expensive in India!

* Explicit Cost: Direct cost, visible, clear, evident.
  e.g: Taxes, bills, monitory payments → school fee, salaries, wages, groceries, ~~installments~~ repairs.

* Implicit Cost: It's opportunity cost/economic cost or indirect cost.

e.g:

Carpenter if → self employed → income fluctuates
↓
income depends on seasons.
(Forgone rents)

if → ~~working for someone~~
↓
he will endup with Rs.60,000 a month.
↓
~~secured~~ income doesn't depend on season.

Every asset has a direct & an indirect cost.

direct → maintainance.
indirect → can be given on rent to earn something.

Total cost = explicit + implicit cost.

Date:

* **PROFITS** Profit = Total Revenue - Total cost.

TR = P x Q

TC = explicit cost + implicit cost.

* **Accounting Profit :** Total revenue - explicit cost.

AP = TR - EC

* **Economic Profit:**

EP = TR - (EC + IC)

AP > EP

* **Normal Profit :** The oppurtunity cost of doing a business doing a business. It's the break even situation of the firm.

Total Revenue = Total Cost.

why normal profit is treated as an implicit cost?
because, this is the initial investment, we haven't made any profit of it.

* **Law of Diminishing Returns:**

Assumptions: 1) Technology & agriculture land are fixed resources.
2) Variable resources is labour/worker.
3) Shorter time period, so expansion cannot take place.

Date:

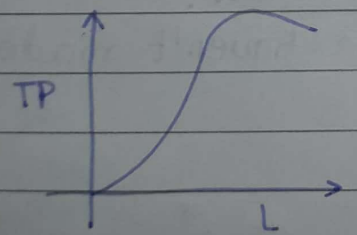
Statement:

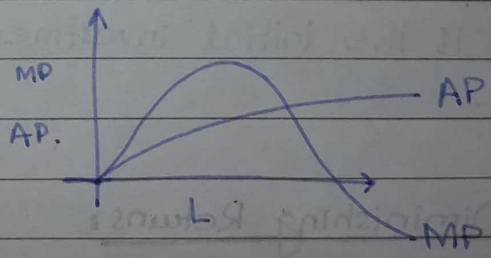
"In order to increase total product when successive units of available resource are added to the fixed resource, the total product increases to a certain point but the marginal product declines."

Units of labour	Total product	Marginal product	Average product
0	0	–	–
1	10	10	10/1 10
2	25	15	25/2 12.5
3	45	20	45/3 15
4	60	15	15
5	70	10	14
6	75	5	12.5
7	75	0	10.7
8	70	-5	8.75

Marginal product = $\frac{\Delta TP}{\Delta L}$

Average product = $\frac{TP}{\text{No. of labours}}$





Cost of production :

Date:

Cost and types :

- $T_C = T_{VC} + T_{FC}$
- $A_{TC} = \frac{T_C}{Q}$
- $A_{VC} = \frac{T_{VC}}{Q}$
- $A_{FC} = \frac{T_{FC}}{Q}$
- $M_C = \frac{\Delta T_C}{\Delta Q}$

T_C = Total cost.
T_{VC} = Total variable cost.
T_{FC} = Total fixed cost
A_{TC} = Average total cost
Q = Quantity / output.
$A_{VC} = \frac{T_{VC}}{Q}$
A_{FC} = Average fixed cost
M_C = Marginal cost.

Magiral cost
↓
cost of producing additional output.

$MC \propto \frac{1}{\text{additional output}}$

Q2 $AP = TR - EC$

$EP = TR - (EC + IC)$

Sol.

$TR = 72000$.

Explicit cost	Implicit cost.
12000	4000
5000	15000
20000	3000
37000	22000

$AP = 72000 - 37000 = 35000\$$

$EP = 72000 - (37000 + 22000) = 13000\$$

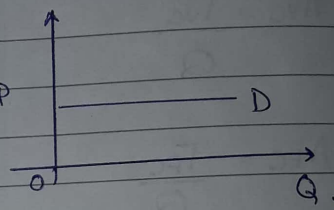
16/4/19. Date:

Pure Competition

Assumptions:

1) Large no. of buyers & sellers.
2) Product is homogeneous.
3) Firms are price takers.
4) Easy entrance and exit for the firms.
5) Market is perfect without government intervention
6) Demand is perfectly elastic.

$$P = AR = MR = D.$$



where

$$AR = TR/Q \text{ and } MR = \Delta TR/\Delta Q.$$

* Application in the real world:

1) This model is applicable in stock exchange.
2) It can be applied in agriculture.
3) Applicable on communication networks.

Q: How firm can maximise the profit?

(1) Short Run Maximization Approach

1) Total revenue & total cost.
2) Marginal revenue & marginal cost.

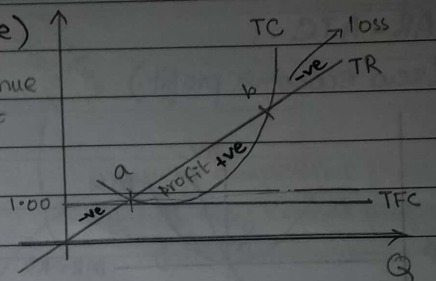
(1) Total Revenue & Total Cost Approach.

a) AR = ATC } Break even point. or zero economic profit or Cost of operating in business.
or TR = TC or normal profit or Opportunity cost of business.

Date:

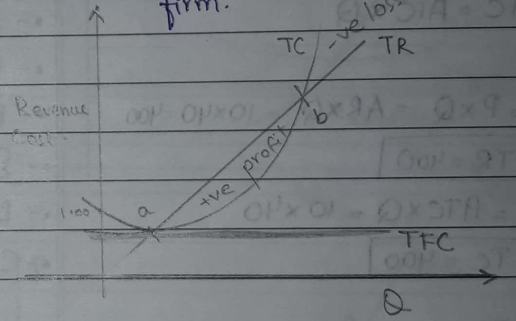
•- Area b/w a and b represents profit (+ve)

∴ Intersection at a & b represents zero economic profit.



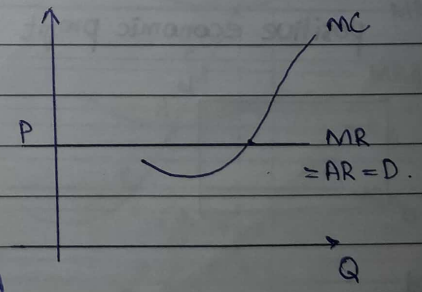
b) AR > ATC, TR > TC } positive economic profit or super normal profit.

c) AR < ATC, TR < TC } negative economic profit or loss of firm.



(2) Marginal Revenue & Marginal Cost:

•- Intersection of MC and MR determines price, output, cost & revenue area.

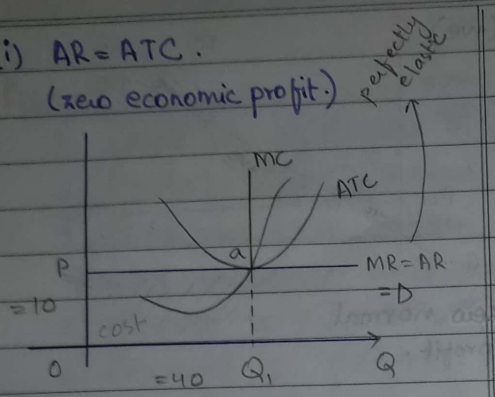


•- Very much applicable in monopoly and monopolistic competition.

Date:

(i) AR = ATC.

(zero economic profit.)



$TR = P \times Q$

$TC = ATC \times Q$

- $TR = P \times Q = AR \times Q = 10 \times 40$

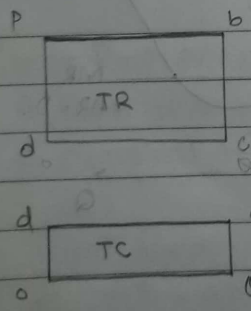
  TR = 400

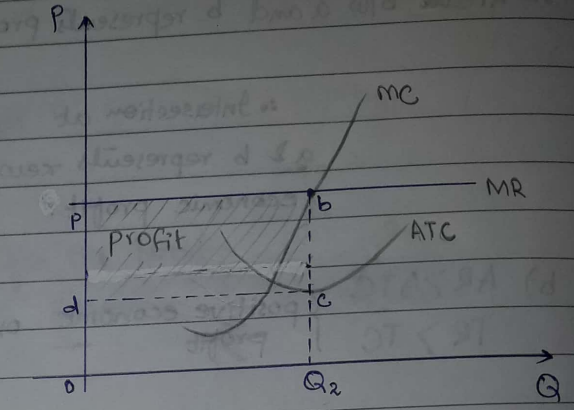
- $TC = ATC \times Q = 10 \times 40$

  TC = 400

(ii) AR > ATC

positive economic profit





graph description.

- Identify MR and MC intersection
- MR curve should be above ATC curve
- Extend ⊥ from MR—MC intersection.
- Determine TC & TR areas (label)
- Assume cost & revenue values.
- Calculate areas.

17/4/19

Q: which curve is supply curve in pure competition?

Q: Employ MR—MC approach to deposit loss and shutdown in pure competition?

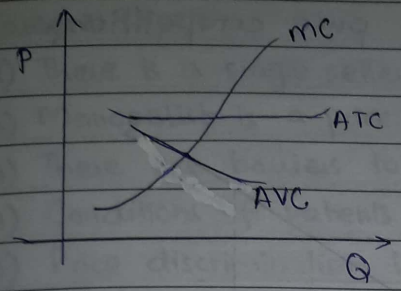
AVC < ATC

AR < ATC (loss)

AR < AVC (shutdown)

RC

Date:

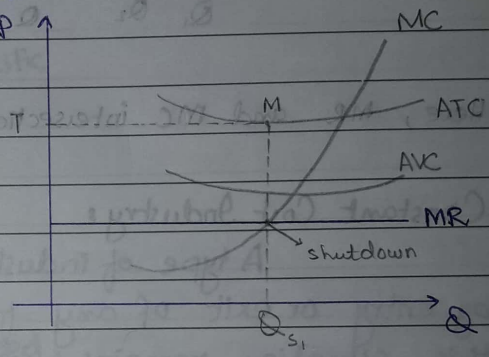


A purely competitive firms exhibits only normal profit at long run.

Q. How do firm behave in long run?

AR < AVC (shutdown)

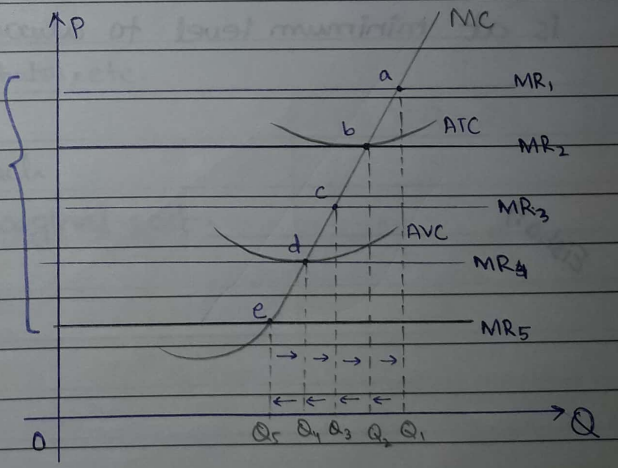
i) firm should shutdown because of it's instability to cover the oppurtunity cost.



ii) Losses are very huge.

points:

a → +ve profit
b → breakdown
c → loss.
d → indifferent
e → shutdown.



iii) Firms produce acc. to consumer preferences.

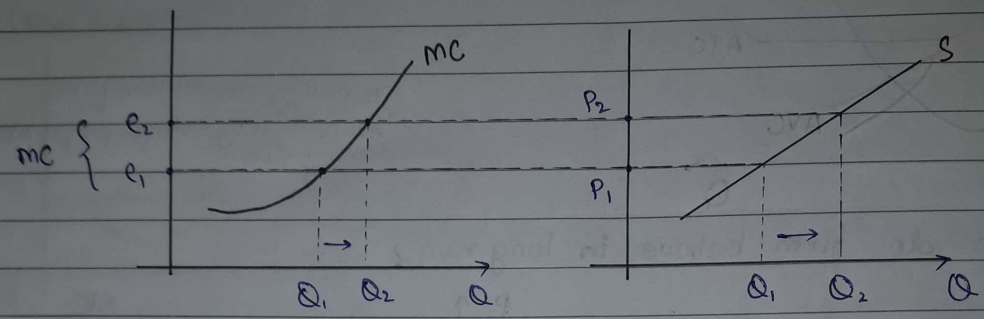
iv) Industry in longrun behaves as a constant cost industry.

MR → demand curve.

MC → supply curve.

Date:

Q3: Which curve is supply curve in pure competition?



•- Here, MR and MC intersection is equilibrium in competitive market

* Constant Cost Industry:

A type of industry which is not affected by entry or exit of any firm. The resource prices in this situation remains constant and the price changed is at minimum level to always support consumes.

Q: Work on demand and supply curve of constant, increasing and decreasing cost industry?

Eisha:)

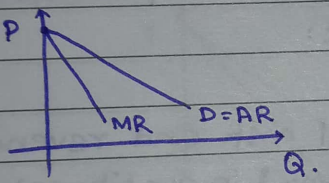
PURE MONOPOLY

Date:

Characteristics :

1) There is a single seller.
2) Monopolist is a price maker.
3) There are baurers to entry and exit.
4) Conditions of patents and copyrights exists.
5) Price discrimination is exercised.
6) Monopolist can buy out any other venture/business, especially in the case of bilateral monopoly.
7) Demand curve is relatively inelastic

8) D=AR.



9) Economies are widely experienced.

e.g :- Railway .. K-electric
.. WAPDA .. Toyota, Daihatsu, etc.

(2) Profit maximisation approach.

Marginal revenue and marginal cost.

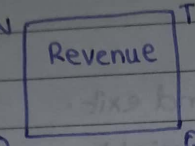
1) AR > ATC profit
2) AR < ATC loss
3) AR = ATC breakeven
4) AR = AVC indifferent
5) AR < AVC shutdown.

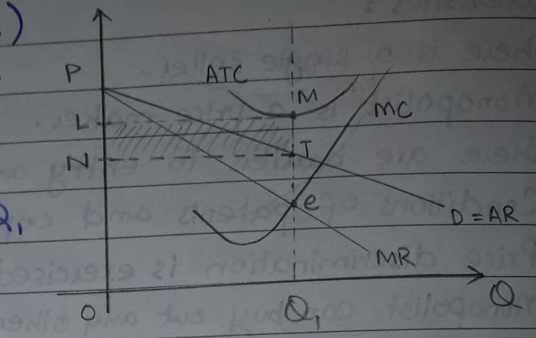
Date:

① AR < ATC (-ve profit / loss)

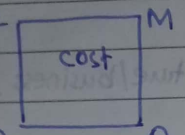
TR = AR × Q

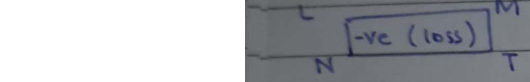
TR = ONT × Q_1





TC = ATC × Q





→ TR = ONTQ_1

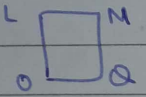
TC = OLMQ_1

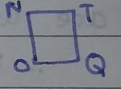
so, profit = TR − TC

= -ve

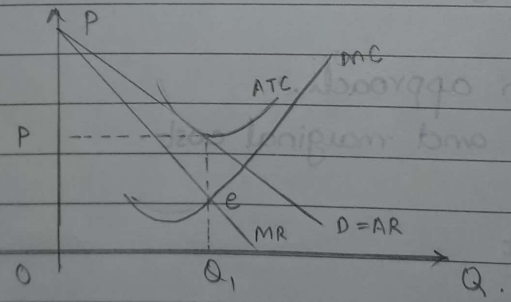
P = LMNT (los

Method to draw demand and MR curve:

1) Introduce MC curve.
2) Locate to intersection of marginal cost and revenue
3) Extend ⊥ to cost curve and demand to quality axis.
4) Total cost area 

Total Revenue 

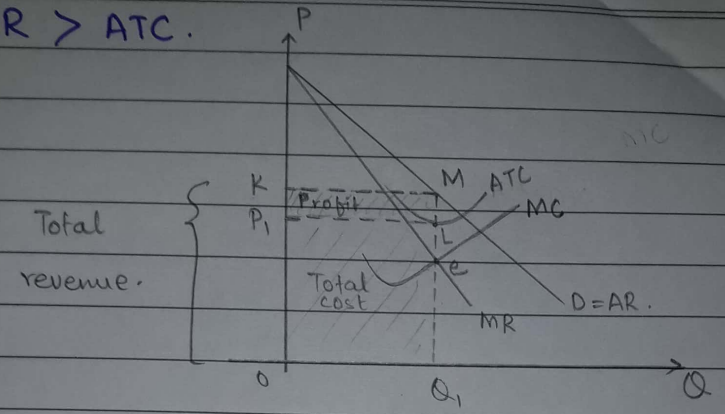
② AR = ATC.



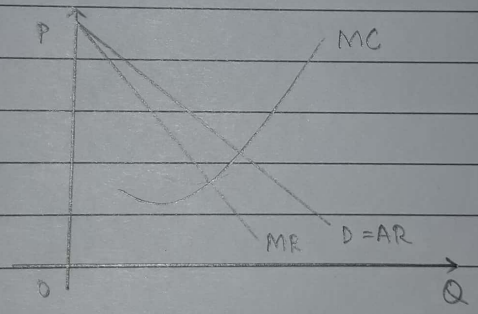
(break even condition).

Date:

(3) AR > ATC.



(4) AR = AVC



(last lecture missing).