



PRESIDENCY COLLEGE
(Autonomous)



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Microeconomics

Producer's Equilibrium



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PRESIDENCY COLLEGE

(AUTONOMOUS)

AFFILIATED TO BENGALURU CITY UNIVERSITY, APPROVED BY AICTE, DELHI & RECOGNISED BY THE GOVT. OF KARNATAKA

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Producers equilibrium

A producer's equilibrium refers to the state where the combination of price and output gives maximum profit to the producer.

Referred to as profit maximization condition.

The following 2 things have to be achieved to reach this state of equilibrium;

- * Costs are minimized for a given level of output.
- * Outputs are maximized for a given amount of cost.





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Approaches to PE

1. TR – TC Approach
2. MR - MC Approach



TR-TC Approach

$$\text{Profit} = \text{TR} - \text{TC}$$

$$\text{Total Revenue} = \text{Total Quantity} * \text{Selling Price}$$

$$\text{Total Cost} = \text{Fixed Cost} + \text{Variable Cost}$$

$$\text{Marginal Revenue} = \text{TR}_n - \text{TR}_{n-1}$$

$$\text{Marginal cost} = \text{TC}_n - \text{TC}_{n-1}$$

$$\text{Average Cost} = \text{Total Cost} / Q$$

$$\text{Average Revenue} = \text{Total revenue} / Q$$

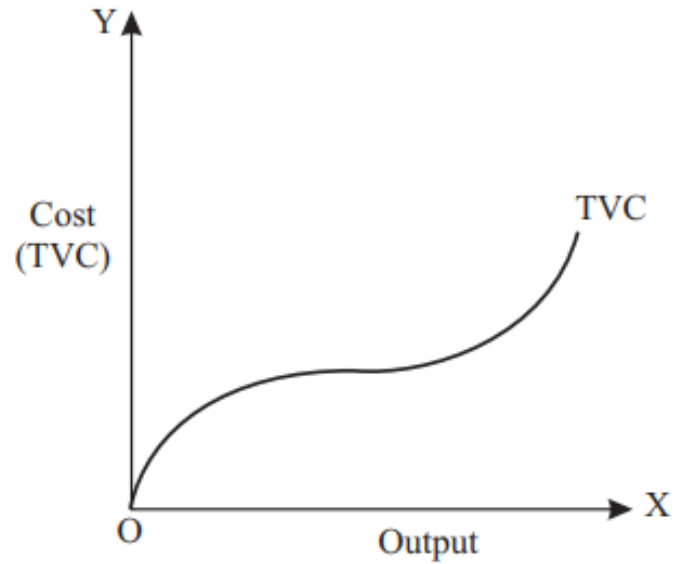
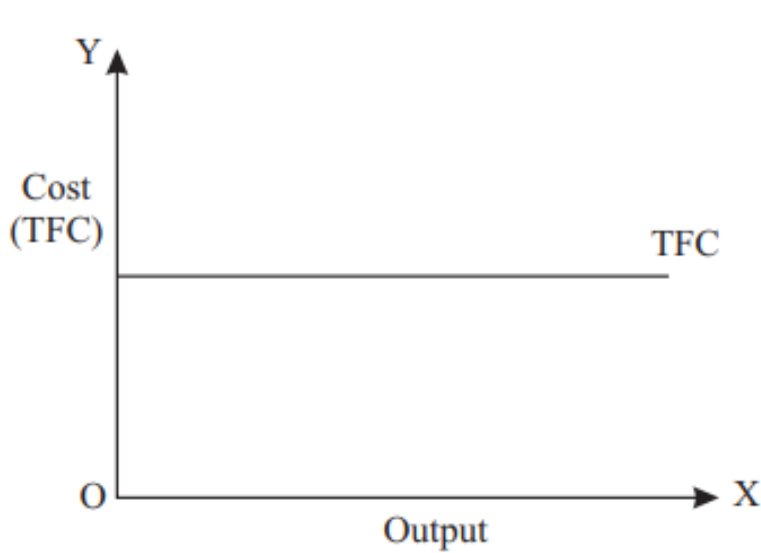


Calculate TC, AC, AFC, AVC and MC.

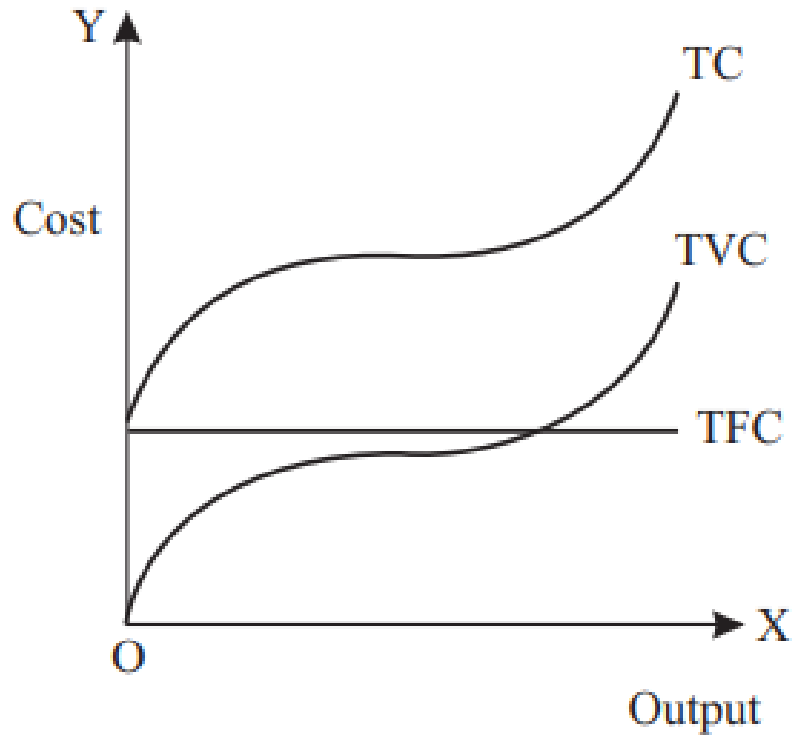
No. of pens in units (1 unit = 100 pens)	Total fixed cost (₹)	Total variable cost (₹)
0	60	0
1	60	60
2	60	100
3	60	150
4	60	260
5	60	390



TFC & TVC



Total Cost



Quiz:

- (i) Changes in total cost when output varies are due to changes in (fixed cost, variable cost).
- (ii) To find total cost we have to total fixed cost and total variable cost (add, multiply)
- (iii) Total cost zero at zero output (is, is not).
- (iv) When output is zero total cost equals (fixed cost, variable cost).



Average Cost

Output of pens(1 unit = 100 pens)	TFC (₹)	TVC (₹)	TC (TFC+TVC) (₹)	AFC ₹	AVC ₹	ATC (AFC+AVC) (₹)
0	60	0	60	-	-	-
1	60	60	120	60	60	120
2	60	100	160	30	50	80
3	60	150.	210	20	50	70
4	60	260	320	15	65	80
5	60	390	450	12	78	90

$$AFC = TFC/Q$$

$$AVC = TVC/Q$$

$$AC=TC/Q$$



Quiz:

- (i) Average cost is(cost per unit, cost incurred on additional unit).
- (ii) To find total cost we have to average cost by quantity of output (multiply, divide).
- (iii) Average fixed cost with the increase in output (falls, rises).
- (iv) Average total cost is the sum of and (average fixed cost, average variable cost, variable cost, fixed cost).

