

NUMERICALS:

Q1. If the Short run total cost function is given as

$$TC = 100 + 50Q - 12Q^2 + Q^3 \text{ where } Q=\text{output.}$$

Find the AC, AVC, and MC at 10 units of output.

Q2.

If $AC = \frac{200}{Y} - 6Y + 8Y^2$, where Y =output , find

- i. TFC
- ii. ii. The point where the AVC is minimum and
- iii. MC at $Y=4$ units

Q3. Given the Total cost function $TC = 4000 + 30X - 12X^2 + X^3$

- i. Find the value of output at the Point of Inflection.
- ii. At what rate of output Stage II of the production function begins.

Q4. Total cost function $TC = 27^3 \sqrt{X^2}$ find the MC at a output(X) = 27 units.

Q5. Given the MC function i.e. $MC = 0.6X^2 - 2X + 5$, find the Total cost function if the TFC = 1000 at $X=10$ units.

Q6. Complete the following table.

Output	TFC	TVC	TC	MC	AFC	AVC	AC
0			60				
1				100			
2							120
3						80	
4			400				
5		500					