

Semester “Spring 2011”

“Economics (ECO401)”

Assignment No.02

Marks: 20

Question:

A firm operating in competitive environment faces the following price (P), quantity (Q), total fixed cost (TFC) and total variable cost (TVC) schedules respectively:

Q	P	TFC	TVC
400	2.5	150	750
500	2.25	150	830
600	2	150	905
700	1.75	150	995

- Calculate total revenue (TR), marginal revenue (MR), total cost (TC), marginal cost (MC) and profit (π) for each level of out (Q).
- Find the optimal level of output and price which maximizes firm's profit.

Marks: A= 18 (1 for each value), B= 2

Solution:

Part A

Q	P	TFC	TVC	TR=P*Q	MR= Δ TR/ Δ Q	TC=TFC+TVC	MC= Δ TC/ Δ Q	Profit (π)=TR-TC
400	2.5	150	750	1000	-	900	-	100
500	2.25	150	830	1125	1.25	980	0.8	145
600	2	150	905	1200	0.75	1055	0.75	145
700	1.75	150	995	1225	0.25	1145	0.9	80

Part B:

As we know that firm maximizes its profit at the point where $MC=MR$. On the basis of given data, only at $Q= 600$ and $P=2$, both MR and MC of firm are equal. Therefore, the optimal level of output and price which maximizes firm's profit is 600 and 2 respectively.