Project LPEco-4

Subject : **Livestock Production Economic Class S**
Venue : Friday, 22 February 2019
Type : Take Home
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The function of the milk Production (Y) and concentrate feed (X) is formulated as:

$Y = 5 + 16\,X - X^2$

Milk price (Y) is $7 per litre and concentrate feed price is $5 per Kg.

Questions:

1.a. How many Kg of concentrate feed is used to obtain Average Revenue Maximum **(AR maximum)** ?

1b. How much ($) are the average revenue maximum **(AR maximum)**?

1c. How many Kg of concentrate feed is required to achieve the Total Revenue Maximum **TR maximum)**

1d. How much ($) are the Total Revenue Maximum **(TR maximum)**?

1e. How many concentrate feed are needed to achieve the Profit Maximum **(Maximum Profit)?**

1f. How much ($) are the Profit Maximum **(** (**Maximum Profit**) if the farm used feed concentrate only?

Question 3:

3.If other variable cost is $ 0.75 and Fixed cost = $0.58, calculate the maximum farm profit for using all cost production!!

Question -2:

2a. Refers to question 1: Y = = 5 + 16 X – X^2 , fill the following Table 1.

Table 1. Revenue and Profit for the utilization of concentrate feed only

X	Y	APP	MPP	Px	Py	TR	TC	MR	MC	Profit
(Input)	(Output)	=Y / X	=dY/dX	= Input Price	= Output Price	=Y x Py	=Px x X	= TR'	= TC'	=TR -TC
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										

2b. How much $ are **the maximum Profit** based on Table 1?

2c. How many **input** and **output** are utilised to pursue the maximum profit?

2d. Draw **TR, TC, and Profit curves**!! Explain it!!

G O O D L U C K !!!