FEEDBACK TUTORIAL LETTER

1st SEMESTER 2019

ASSIGNMENT 02

FOR

PRINCIPLES OF MICROECONOMICS
PMI511S
Dear Student,

It is nearly the end of the first semester and I trust that you have so far gained a wealth of knowledge and information on economics.

You should have received your first assignment back as well as the feedback tutorial letter for the first assignment. If you have not received these, please call your student support officer.

This tutorial letter is to give feedback on Assignment 2 of Principles of Microeconomics. Assure yourself of all the correct answers and pay attention to the remarks of the marker-tutor. Feel free to call me if you need assistance.

Use the time that you have available up to the end of the semester to do revision and prepare yourself for the examination.

Good Luck with the examinations!

Regards,

Mrs. Elina Haivela

Tel. +264 81 1283754

Email: elinae85@gmail.com
ASSIGNMENT 2

SECTION A

Instruction: Please use the answer sheet at the end of this tutorial letter. Cross the alternative you select with an X.

1. C
2. B
3. A
4. B
5. C
6. A
7. C
8. B
9. A
10. D
11. D
12. D
13. C
14. A
15. C
16. D
17. A
18. C
19. A
20. D
SECTION B

QUESTION 1 [10 marks]

Tangeni spends N$120 a week on juice and chips. The price of a juice is N$20 per unit and the price of chips is N$30 per unit. The data in Table 1 reflects the total utility Tangeni derives from the juice and chips.

Table 1: Utility schedule for juice and chips

<table>
<thead>
<tr>
<th>Quantity Consumed</th>
<th>Juice (N$20)</th>
<th>Chips (N$30)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TU</td>
<td>MU</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>1</td>
<td>660</td>
<td>660</td>
</tr>
<tr>
<td>2</td>
<td>1260</td>
<td>600</td>
</tr>
<tr>
<td>3</td>
<td>1800</td>
<td>540</td>
</tr>
<tr>
<td>4</td>
<td>2280</td>
<td>480</td>
</tr>
</tbody>
</table>

1.1 Copy Table 1 in your answer book and complete the columns for marginal utility (MU) and MU/P. (8)

\[
MU = \frac{\text{Change in TU}}{\text{Change in Quantity}}
\]

Half marks for all answers printed in bold in Table 1.

1.2 What is the optimal combination of juice and chips that Tangeni should buy in order to maximize utility? Show your calculations. (2)

Tangeni will maximise his utility or be in equilibrium where the weighted marginal utilities of the two products are the same, i.e. MU/P Juice = MU/P Chips.

In this the weighted marginal utilities are equal at 30, 27 and 24.

But only one option will maximise his utility and at the same time fit into his budget of N$120.

Thus: Tangeni will spend the following amount per activity to maximise his utility with a budget of N$120:

3 Juice x N$20 = N$60

2 Chips x N$30 = N$60

N$120
QUESTION 2 [7 marks]

Table 2: Production Schedule

<table>
<thead>
<tr>
<th>Capital</th>
<th>Labour</th>
<th>Total Product (TP = AP x L)</th>
<th>Average Product (AP = TP / L)</th>
<th>Marginal Product (MP = ∆TP / ∆L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>(15 x 1) 15</td>
<td>15</td>
<td>(15 – 0) 15</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>40</td>
<td>(40 + 2) 20</td>
<td>(40 – 15) 25</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>(40 + 14) 54</td>
<td>(54 + 3) 18</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>(15 x 4) 60</td>
<td>15</td>
<td>(60 – 54) 6</td>
</tr>
</tbody>
</table>

2.1 Copy table 2 in your answer book and complete the table. (4)

Half marks for all answers printed in bold in Table 2.

2.2 At which level of employment will diminishing marginal returns set in? (1)

Diminishing marginal returns will set in from the 3rd worker, where it drops from 25 to 14.

3.3 Is this company looking at the short run or long run? Explain your answer. (2)

The data refer to the short term because there are fixed and variable production factors involved. Capital is the fixed factor and labour is the variable factor.
QUESTION 3 [13 marks]

Table 3: Revenue and Cost conditions of Family Furnishers (Pty) Ltd.

<table>
<thead>
<tr>
<th>Output (Q)</th>
<th>P=MR</th>
<th>Total Revenue (P x Q)</th>
<th>Average Total Cost (N$)</th>
<th>Total Cost (N$) (ATC x Q)</th>
<th>Marginal Cost (N$)</th>
<th>Total Profit/Loss (N$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>10.00</td>
<td>100</td>
<td>20.80</td>
<td>208</td>
<td>-108</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>10.00</td>
<td>200</td>
<td>12.40</td>
<td>248</td>
<td>4.00</td>
<td>-48</td>
</tr>
<tr>
<td>30</td>
<td>10.00</td>
<td>300</td>
<td>9.90</td>
<td>297</td>
<td>5.00</td>
<td>+3</td>
</tr>
<tr>
<td>40</td>
<td>10.00</td>
<td>400</td>
<td>9.00</td>
<td>360</td>
<td>6.20</td>
<td>+40</td>
</tr>
<tr>
<td>50</td>
<td>10.00</td>
<td>500</td>
<td>8.80</td>
<td>440</td>
<td>8.00</td>
<td>+60</td>
</tr>
<tr>
<td>60</td>
<td>10.00</td>
<td>600</td>
<td>9.00</td>
<td>540</td>
<td>10.00</td>
<td>+60</td>
</tr>
</tbody>
</table>

3.1 Copy table 3 in your answer book and complete the table. (9)

Half marks for all answer printed in bold in Table 3

3.2 In what market structure does this firm operate? Explain your answer. (2)

Family Furnishers operates in a perfectly competitive market. The price at all output levels is N$10 and MR = P. This means that the demand curve is perfectly elastic (horizontal) and D =P = AR = MR.

3.3 What level of output maximises the firm’s total profit? Explain. (2)

The firm maximises profits at output levels of 60 units where MR = MC = 10.