**Unity University**

**College of Business and Economics**

**Assignment for Introduction to Economics (25%)**

**Group Assignment (group of 5)**

1. **Define the Following**

A. Economics

B. Factors of Production

C. Scarcity

D .Opportunity Cost

1. Law of Demand.
2. Production Possibilities Curve
3. Law of Supply
4. Three basic questions all economic systems must answer
5. **Let the following table represents the total utility of a given consumer, in the cardinal utility approach**.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Q | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| TUX | 8 | 14 | 18 | 20 | 20 | 18 | 16 |
| TUY | 6 | 10 | 13 | 15 | 16 | 16 | 14 |
| MUX |  |  |  |  |  |  |  |
| MUY |  |  |  |  |  |  |  |
| MUX/PX |  |  |  |  |  |  |  |
| MUY/PY |  |  |  |  |  |  |  |

1. Calculate the MUX and MUY and fill the table in the 4th and 5th rows.
2. If the two products (X&Y) are free goods how many of X and Y should the consumer take to maximize utility?
3. What is the maximum utility of X and Y if they are free?
4. Let now price of X is 4 birr per unit and price of Y is 2 birr per unit. Calculate MUX/PX and MUY/PY and fill the 6th and 7th row.
5. Assuming the consumer has any amount of money (enough budget) how many of X and Y should the consumer buy, to maximize utility?
6. What is the total utility of X and Y?
7. Let now price of X is 4 birr per unit and price of Y is 2 birr per unit and budget of the consumer for consumption of X and Y is 20 birr. Given budget constraint how many of X and Y should the consumer buy to maximize utility?
8. What are the total utility of X and Y
9. **In ordinal Utility** approach, let a consumer’s utility function is given by . If price of X is 2 birr and price of Y is 3 birr and if budget of the consumer is 100 birr for consumption of X and Y, then what are the utility maximization X and Y?
10. Let the following table shows the short run production function where labor is variable and other resources are fixed.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| L | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| TPL | 4 | 10 | 18 | 24 | 28 | 30 | 30 | 28 | 24 |
| MPL | 4 | 6 | 8 | 6 | 4 | 2 | 0 | -2 | -4 |
| APL | 0 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 |

1. Fill the table
2. Identify the three stages of production
3. Suppose the short run total cost function is , then at Q=10
4. What are the TFC, TVC and TC?
5. What are the AFC, AVC, and AC?
6. What is the MC?