INTRODUCTION TO ECONOMICS

BUSINESS ADMINISTRATION DEGREE - YEAR 2016

PRACTICE SHEET 0

1. Consider the following data corresponding to a linear function. Calculate its slope and explain its meaning. Find the algebraic expression and draw it (specifying each point).

X	1	2	3	4
Y	6	9	12	15

2. Explain the difference between two functions, one with positive and the other with negative slope. Interpret the relation between X and Y, give an algebraic example and graph both type of functions.

3. Depict in a graph the following relations between variables (put the first one on the y-axis and the second one on the x-axis).

   (a) Probability of falling down and the number of holes in the streets and footpaths.

   (b) Wage incomes and years of education in 30 to 40 years-old people.

   (c) Probability of being alive and age.

   (d) Number of failed subjects and number of study hours.

4. It is been observed that when the price of the meat increases, people buy (or demand) less meat. Depict this relation between the price and Kgs of meat bought through a straight line, putting the Kgs of meat bought in the x-axis and the price in the y-axis. We will call this relationship: meat consumers demand curve.

   (a) Is the slope of this curve positive or negative? What does it mean?

   (b) Interpret the value of the y-intercept (vertical intercept).

   (c) Imagine the price of the meat collapses dramatically. What do you expect to happen with the consumers demand curve?

   (d) Imagine the consumers income increases and people buy more meat. What do you expect now to happen with the consumers demand curve?

   (e) Identify in previous questions C and D, what is a change in the demand (movement of the demand curve) and what is a change in the demanded quantity.

5. A company that makes tires has the capacity to employ 15 workers that produce 3 tires a day. The company can hire more than 15 workers (just until 50), but these workers (from 16th to 50th) produce 2 tires a day.
   Find the algebraic expression and graph the firms production function which relates the number of tires produced (Y) with the number of workers hired (X).