CONCEPTS OF ECONOMICS (TUTORIAL NO. 06) – DEMAND & SUPPLY

***Question No. 1***

The demand equation for a popular brand of fruit drink is given by the equation

Qx = 10 – 5Px + 0.001**I** + 10Py

Qx (monthly consumption /family in gallon)

Px (price per gallon of the fruit drink) = Rs 2

I (median annual family income) = Rs 20,000

Py (price/gallon of competing brand) = Rs 2.5

1. Interpret the parameter estimates.
2. At the given values, compute the monthly consumption (gallons) of fruit drink.
3. Compute the family consumption if annual family income increased to Rs 30,000.

***Question No. 2***

Demand function of Bakeman biscuits is:

Q = 2.02P + 0.03A - 0.04Ac + 0.06Pc + 0.001I

Q (quantity) and P (price) of Bakeman biscuits

A (company’s advertisement expenditures)

Ac (competitor’s advertisement expenditures)

Pc (competitor’s price)

I (average personal disposable income)

Given A = 50, Ac = 100, Pc = 5 and I = 20,000

1. Write demand & inverse demand equation.
2. Find Q for P = 10.

***Question 03***

The market demand and supply equations for a product are given. What are the equilibrium price and quantity for this product?

QD = 25- 3P

Qs = 10 + 2P

***Question No. 4***

If the demand and supply functions of a good in Delhi are Qd = 100 – 3P and Qs = 2P – 20,

a) Find the equilibrium output

b) If the price is Rs.20, find the surplus (deficit).

***Question No. 5***

Universal Exports (UE) has estimated the following monthly demand equation for its new brand of gourmet French pizza, Andrew’s Appetizer:

QD = 500- 100P + 50I + 20Pr + 30A

I = per-capita income

Pr = price of another gourmet product, François’s french pizza

A = monthly advertising expenditures of UE

The supply equation for Andrew’s Appetizer is

Qs = 1350 + 450P

1. What is the relationship between Andrew’s Appetizer and François’s french pizza?
2. Suppose that I = 200, Pr = 80, and A = 100. What are the equilibrium price and quantity for this product?
3. Suppose that per-capita income increases by 55 (i.e., I = 255). What are the new equilibrium price and quantity for this product?