The Cooperative University of Kenya

HBC 2104/CMFI 2102: Introduction to Microeconomics/Microeconomics

Instructions
Answer question One and any other two questions

Question One

a) Clearly define the following sets of terms as used in economic analysis;
   i)   Scarcity and opportunity cost (4 marks)
   ii) Marginal utility and marginal product (4 marks)
   iii) Diminishing returns and diminishing returns to scale (4 marks)
b) Describe the main features of the following types of economic systems.
   i) Free market economy(5 marks)
   ii) Planned/command economy (5 marks)
c) The following two functions represent the market demand and supply for a commodity.

$$Qd = 5 - \frac{3}{4}P$$
$$Qs = -15 + 3P$$

Where P is the price, Qd is quantity demanded and Qs is quantity supplied of the commodity.

Required.

i) Find the equilibrium price and quantity of the commodity (4 marks)
ii) With the aid of a diagram, show the effect of a simultaneous increase in demand and supply of the commodity on the equilibrium price and quantity in (b) (i) above (4 marks)

Question Two

a) A consumer's utility is given as;

   U = f (X, Y)

Required.

i) Find the marginal rate of substitution.   (2 marks)

ii)   Suppose that product X costs sh. 2 per unit, and product Y costs sh. 3 per unit. Assuming the consumer's income is sh. 30, find the expression for utility maximization. (3marks)

b) Using indifference curves, explain the concept of consumer equilibrium. (8 marks)

c) With the aid of a well-labelled diagram, show the income and substitution effects of a change in price of a normal good. (7 marks)

Question Three

a) Define the term production and state three levels of production. (4 marks)

b) Giving appropriate examples, explain four factors of production pointing out their rewards. (4 marks)

c) The data below shows tabulation on production of product Q.

Output (Q - Units)	0	1	2	3	4	5	6
Total Costs (TC – sh.)	100	120	130	135	145	160	170

Required. Find

i)   Total fixed costs (2 marks)
ii)   Average cost for each level of output (5 marks)
iii) Marginal cost for each level of output (5 marks)

Question Four

a) Define the term isoquant (2 marks)

b) State three characteristics of isoquants (3 marks)

c) Assuming a firm utilises only two factors, illustrate the equilibrium of the firm using isocosts and isoquants (8 marks)

d) Using a suitable diagram, illustrate a firm's long run expansion path (7 marks)

Question Five

a) Discuss five sources of monopoly power.   (10 marks)

b) Under what conditions can a monopolist effectively price – discriminate? (4 marks)

c) Explain any three types of internal economies of scale (6 marks)