MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

THIRD YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF ECONOMICS AND STATISTICS

BACHELOR OF ECONOMICS

EAE 303: MANAGERIAL ECONOMICS

DATE: 21/1/2021   **TIME:8.30-10.30 AM**

INSTRUCTIONS:

Answer question one and any other two questions

QUESTION ONE (30 MARKS)

a)   Discuss the economic meaning of costs and profit   (4 marks)

b)   Suppose that the demand equation for Delmonte, a monopolist. is given by $P = 400 - 20Q$ cost equation is given by $TC = 500 + 20Q^2$. Find the profit-maximizing price and output for the monopolist.   (6 marks)

c)   Explain the shape of the production function and Law of Diminishing Returns   (6 marks)

d)   Using the following demand and supply functions for a commodity x, compute the equilibrium price and quantity.   (4 marks)

   $Q_d = 100 - 2p$; $Qs = 40 + 4p$

e)   State and explain the methods of evaluating an industry's performance.   (4 marks)

f)   Suppose an investor regards 200,000 with certainty as equivalent to the expected risky return of $800,000 per year for the next five years. The initial cost outlay for the project is $600,000, and the risk-free discount rate is 10 percent. Find the net present value of the investment project.

Compute the certainty equivalent coefficient (α) (6 marks)

QUESTION TWO (20 MARKS)

a)   Explain the difference between fixed and variable costs (4 marks)

b)   Briefly discuss the main sources of economies and diseconomies of scale (8 marks)

c)   Explain the relationship between short-run and long –run costs of production (4 marks)

d)   With the aid of a diagram explain the break-even analysis of the firm (4 marks)

QUESTION THREE (20 MARKS)

A company is considering two mutually exclusive projects requiring an initial cash outlay of Sh 18,000 each and with a useful life of 5 years. The company required rate of return is 10% and the appropriate corporate tax rate is 30%. The projects will be depreciated on a straight line basis. The before depreciation and taxes cashflows expected to be generated by the projects are as follows.

YEAR	1	2	3	4	5
Project A	Shs 9,000	7,000	5,000	4,000	3,000
Project B	Shs 6,000	10,000	3,000	5,000	6,000

Required:

Calculate for each project

a)   The payback period

b)   The average rate of return

c)   The net present value

d)   Profitability index

e)   The internal rate of return

Which project should be accepted? Why?

QUESTION FOUR (20 MARKS)

a)   Identify and explain various techniques of demand estimation (8 marks)

b)   Explain consumer clinics and market experiments as methods of information collection.

(4 marks)

c)   Briefly discuss the steps involved in demand estimation by regression analysis. (8 marks)

QUESTION FIVE (20 MARKS)

a)   A firm produces candles. The market for candles is highly competitive, with candles currently selling for $10. The firm's short-run total cost function is C= 200 + 0.2q, so its marginal cost is MC= 0.4q.

          i.   What is the firm's profit-maximizing quantity?   (4 marks)

          ii.   Is the firm earning a profit?   (5 marks)

          iii.   What is the short-run shutdown price?   (3 marks)

b)   Discuss any four sources of monopoly power.   (8 marks)