

THIRD YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURAL ECONOMICS AND AGRIBUSINESS MANAGEMENT

## AGBM 341: MANAGERIAL ECONOMICS

STREAMS: AGBM Y3S2
TIME: 2 HOURS
DAY/DATE: MONDAY 9/04/2018
11.30 A.M - 1.30 P.M.

## INSTRUCTIONS:

- Answer ALL Questions in Section A and any THREE in Section B
- Answer each question on a separate page
- Do not write anything on this question paper.


## QUESTION ONE

(a) Define the following terms;
(i) Managerial economics
[2 Marks]
(ii) Equi-marginalism
[2 Marks]
(iii)Incremental concept
[2 Marks]
(b) Ceteris paribus is an assumption made to simplify the complexity of managerial phenomenon under study in a dynamic business environment. Explain other features of managerial economics.
(c) Many new subjects have evolved in recent years due to interactions with other disciplines. Discuss the managerial relationships with other disciplines.
(d) Discuss any three practical applications of the concept of elasticity of demand in management and economic policy decision making in a business firm.
[6 Marks]

## QUESTION TWO

(a) Using relevant examples, discuss the types of demand under different categories. [7 Marks]
(b) Determine profit maximizing output from the following total profit function clearly showing necessary and sufficient condition $\Pi=-3 Q^{2}+33 Q-72$
(c) Explain the scope of managerial economics and cover the two areas of decision making and thereby explain briefly the internal issues.

## QUESTION THREE

(a) State the Law of Diminishing Returns and with the aid of a graph, discuss fully the three stages associated with the law and suggest with reason which stage is economical to produce and not to produce at.
[9 Marks]
(b) In the worlds of Marshall "the amount of demand increases with a fall in prices and diminishes with a rise in prices". Explain why demand curve slopes from left to right.
[6 Marks]
QUESTION FOUR
(a) Define each of the following investments rules. In your definition, state the criterion for accepting or rejecting independent projects under each rule.
(i) Payback period.
[2 Marks]
(ii) Internal rate of return
[2 Marks]
(iii)Net present value.
[2 Marks]
(b) Jeremy Limited wishes to expand its output by purchasing a new machine worth Kshs.170,000 and installation costs are estimated at Kshs.40,000. In the $4^{\text {th }}$ year, this machine will call for an overhaul to cost Kshs.80,000. Its expected inflows are:

| Years | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Inflow is Kshs. | 60,000 | 72,650 | 35,720 | 48,510 | 91,630 | 83,715 |

This company can raise finance to purchase machine at $12 \%$ interest rate. Compute net present value (NPV) and advise management accordingly.
[9 Marks]

## QUESTION FIVE

With the help of a diagram, explain economies of scale.
[5 Marks]
Given the following information:

| Input (X) | 0 | 10 | 15 | 20 | 25 | 30 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Output (Y) | 0 | 12 | 27 | 53 | 98 | 124 |

## Additional information:

(i) The price of output per unit is Kshs. 33.5
(ii) The price of input per unit is Kshs. 14
(iii)The level of fixed cost is Kshs. 245

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## Required:

Using a table,
(i) Determine the level of Total Variable Costs.
[2 Marks]
(ii) Determine the level of Total Average Costs.
[2 Marks]
(iii)Determine the level of Marginal Costs.
[2 Marks]
(iv)Determine the Total Revenue
[2 Marks]
(v) Determine the Marginal Revenue

