(*Knowledge for Development*)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR

SECOND YEAR 1ST SEMESTER
SPECIAL/SUPPLEMENTARY EXAMINATIONS

FOR THE DEGREE OF BACHELOR OF SCIENCE AGRICULTURE EDUCATION AND EXTENSION

COURSE CODE: AEC 225/SAB 482
COURSE TITLE: PRODUCTION ECONOMICS

DATE: 20TH JULY 2022 **TIME:** 2 – 4 PM

INSTRUCTIONS TO CANDIDATES

Answer Question ONE and any other TWO Questions.

TIME: 2 Hours

This paper consists of 4 printed pages. Please Turn Over

QUESTION ONE (30 MARKS)

READ THE FOLLOWING INFORMATION AND ANSWER THE QUESTIONS THAT FOLLOW:

Production has four time periods – the production manager of Uwezo Manufacturers stated during a presentation. These were the very short run, short run, long run and very long run. He said that the law of variable proportions is only applicable in the short run and the law of returns to scale will operate in the long run period. He asked the audience whether they understood the meaning of production and whether production creates utility.

He said that production is the process of transforming resources into careful forms thereby creating utility. As factors are being employed production undergoes various stages. A producer needs to make decisions.

Required:

(a) Discuss the factors of production. [5 marks]

(b) Highlight the laws of returns to scale. [6 marks]

(c) State the stages of production and show which one is the most rational. [3 marks]

(d) Explain decision making environments. [6 marks]

(e) State the Cobb Douglas production function and explain its components. [5 marks]

(f) Highlight the risk altitudes of a producer. [5 marks]

QUESTION TWO (20 MARKS)

(a) PQR Ltd. is trying to use three production functions. The payoff of each production function is given below:

		Production function		
State of nature	**Prob.**	**1**	**2**	**3**
Best possible	0.3	10000	10200	8000
Most likely	0.4	6000	6750	6800
Worst possible	0.3	0	(1000)	(13600)

Required:

(i) Expected monetary values of each. [4 marks]
(ii) The standard deviation of each. [4 marks]
(iii) Coefficient of variation of each. [4 marks]

(b) Write brief notes on production probability curve. [8 marks]

QUESTION THREE (20 MARKS)

(a) State the law of diminishing marginal returns and its assumptions.

[8 marks]

(b) Discuss the barriers of geographical mobility of labor and its policy measures.

[12 marks]

QUESTION FOUR (20 MARKS)

(a) Using a well-labeled diagram, explain the stages of production. [10 marks]

(b) Prove that the exponents of capital and labor in the Cobb-Douglas production function represent elasticities. [10 marks]

QUESTION FIVE (20 MARKS)

(a) Consider the following demand and cost functions:

$P = 75 - 0.5Q$

$TC = 150 + 40Q$

(i) Determine profit maximizing quantity and price. [8 marks]
(ii) Determine revenue maximizing quantity and price. [6 marks]

(b) Highlight factors affecting supply. [6 marks]