AFRICA UNIVERSITY
A United Methodist-Related Institution

"Investing in Africa's Future"

COLLEGE OF HEALTH, AGRICULTURE & NATURAL SCIENCES

AEC 303 PRODUCTION ECONOMICS

END OF SECOND SEMESTER EXAMINATIONS

APRIL/MAY 2018

LECTURER : DR L DUBE

DURATION : 3 HOURS

INSTRUCTIONS

1. Do not write your name on the answer sheet

2. Use Answer Sheets Provided

3. Begin your answer for Each Question on a New Page

4. Credit is Given for Neat Presentation

APRIL/MAY 2018

Three hours

INSTRUCTIONS TO CANDIDATES

Answer FOUR questions. All questions carry equal marks.

Question 1

a) What do you understand by the term "agricultural production economics"?   [5]

b) Outline five goals of agricultural production economics.   [10]

c) Discuss five assumptions relating to agricultural production.   [10]

Question 2

a) Define and present the neo-classical production function.   [5]

b) With the aid of a diagram explain the three stages of production.   [10]

c) Which is the rational stage of operation and why?   [10]

Question 3

a) Define the terms TPP, APP, MPP and elasticity of production.   [10]

b) The following is a hypothetical production function, calculate APP, MPP and elasticity of production.   [10]

Land	Variable Input (Labour)	Output (Y)	APP	MPP	Elasticity of product
1	0	0			
1	1	6			
1	2	16			
1	3	24			
1	4	30			

1	5	34			
1	6	34			
1	7	32			
1	8	26			

c) Identify and state the economic law derived from this production function and state its assumptions [5]

efine the terms fixed costs (FC), variable costs (VC), total costs (TC), average fixed
sts (AFC), average variable costs (AVC), average total costs (ATC) and marginal costs
IC). [10]

om the table below, calculate TC, AVC, AFC and MC. [15]

a) De
co
(M

b) Fr

)	TFC	TVC	TC	AVC	ATC	MC
	100	0				
	100	100				
	100	200				
	100	300				
	100	400				
	100	500				
	100	600				
	100	700				
	100	800				
	100	900				
	100	1000				

Output (Y
0
3.7
13.9
28.8
46.9
66.7
86.4
104.5
119.5
129.6
133.3

5

fferentiate among the following

Iso-quant and Iso-resource line
Iso-cost and Iso-revenue line. [10]

cuss with examples the different types of production possibility curves that illustrate
relationships among farm enterprises. [15]

Question

a) Dif

i)
ii)

b) Dis
the