



PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF NATURAL RESOURCES AND SPATIAL SCIENCES

DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES SCIENCES

QUALIFICATION: BACHELOR OF OFFICE MANAGEMENT AND TECHNOLOGY	
QUALIFICATION CODE: 70 LAN	LEVEL: 7
COURSE CODE: ALM 621S	COURSE NAME: AGRICULTURAL LAND MANAGEMENT
DATE: January 2019	PAPER: THEORY
DURATION: 3 Hours	MARKS: 100

SUPPLEMENTARY / SECOND OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	Mr. Alexander Meroro
MODERATOR:	Dr. Gabriel Hangara

INSTRUCTIONS
<ol style="list-style-type: none">1. Answer ALL eight (8) questions.2. Read all questions carefully before answering.3. Number your answers clearly.4. Make sure your student number appears on the answering script.

PERMISSIBLE MATERIALS

1. Examination paper.
2. Examination script.

THIS QUESTION PAPER CONSISTS OF 3 PAGES (Including this front page)

Question 1

Certain unsustainable agricultural practices cause depletion of the soil organic matter. Explain how this biological soil degradation process influences the sustainability of agriculture by discussing possible causes, adverse effects and control thereof.

(25)

Question 2

Wind erosion is a physical degradation process that occurs especially when field husbandry is practiced on sandy soils. Discuss the causes, adverse effects and control of wind erosion under such conditions.

(25)

Question 3

Discuss the relative advantages and disadvantages of irrigation by furrow, sprinkler, drip and buried pipes.

(12)

Question 4

Define and explain the Universal Soil Loss Equation (USLE)

(6)

Question 5

Run-off agriculture can be undertaken successfully on small portion of Namibia's land surface:

(a) Explain the soil and topographical conditions that need to exist for successful run-off agriculture

(3)

(b) Describe the characteristics required of crops than can be grown in run off agriculture (3)

Question 6 :

In your own words, explain the importance of each of the following components of a map.

(a) Map Legend

(2)

(b) Coordinates system

(2)

(c) Scale

(2)

(d) Contour interval

(2)

Question 7 :

Suppose that a farmer ask you for advice on incorporating domesticated guinea fowls on his / her farm. Discuss how you would advise the farmer on placement of the guinea fowls in relation to zone and sector analysis and linkages to other components.

(12)

Question 8

Suppose that micro catchments of 14 m x 14 m are used for irrigation of orange trees. What will be the maximum litres of water supplied by each micro-catchment during an intense rain storm of 50mm (assuming no infiltration on the catchments). If the pit at the bottom of micro-catchments is 14 square meters, then how deep would it have to be in order to prevent any spillage of water from this intense shower of 50mm?

(6)