

NATIONAL UNIVERSITY OF LESOTHO

FACULTY OF AGRICULTURE

DEPARTMENT OF CROPS SCIENCE

CPS 2502 – INTRODUCTION TO IRRIGATION AND DRAINAGE

August 2023

MARKS: 60

TIME: 3 HOURS

INSTRUCTIONS : **Answer all four (4) questions.**

QUESTION 1

With the aid of a diagram **discuss** a hydrologic cycle, naming all vital components of the cycle. **(20)**

QUESTION 2

Describe the concepts of Available Water (AW) and Readily Available Water (RAW) and demonstrate how these affect the yields of crops. **(20)**

QUESTION 3

Define the following terms as pertain to water quality, also provide treatment measures for each:

- a). Algae;
- b). Salinity
- c). Corrosion
- d). pH

(20)

QUESTION 4

Discuss the following as pertains to sprinkler irrigation: suitable crops; suitable slopes; suitable soils; and suitable water. **(10)**