

SEM 2:

2019/2020



UNIVERSITY OF ESWATINI

FINAL EXAMINATION

COURSE CODE:

CPR402

COURSE TITLE:

SOIL MANAGEMENT

TIME ALLOWED:

TWO [2] HOURS

INSTRUCTIONS:

1. ANSWER 4 QUESTIONS IN TOTAL
2. DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN GRANTED

NOTE: THIS PAPER CONTAINS 2 PAGES INCLUDING THE COVER PAGE

Question 1

Discuss how salinity develops in soils and further distinguish between saline, saline-sodic and sodic soils (25 marks)

Question 2

Soils get contaminated with metals (e.g. Pb, Cd, Hg, Mo, As, Se) and become toxic at low concentrations. Briefly explain how this happens and further discuss the management of such soils to ensure good plant growth. (25 marks)

Question 3

Soils are known to have permanent and variable charges. Discuss how these develop and their importance in crop production and the environment. (25 marks)

Question 4

You have been instructed to produce a cereal crop in a land that has been previously used for pineapple production. How would you ensure non failure of this preceding crop? (25 marks)

Question 5

Soil pH increases under paddy rice production system. Explain why and discuss the effect of such pH increases on phosphorus availability. (25 marks)