"Investing in Africa's future"

COLLEGE OF HEALTH, AGRICULTURE & NATURAL SCIENCES

NACP 211: CROP PHYSIOLOGY

END OF FIRST SEMESTER FINAL EXAMINATIONS

NOVEMBER/ DECEMBER 2022

LECTURER: MR. MTAITA T. A.

DURATION: 3 HOURS

INSTRUCTION

Choose and answer ***four*** questions

Question One

a) With an aid of a table, examine the different types of stress in plants. **[5]**
b) As a crop physiologist, advice crop producers on the physiological changes resulting from drought. **[10]**
c) Examine separately the attributes governing yield when water or solar radiation is limiting. **[10]**

Question two

a) Why is it mandatory for students registered in agriculture sciences to take a crop physiology course? **[5]**
b) Examine why a crop physiologist is not able to provide a set of characters to resolve physiological challenges facing crop producers. **[10]**
c) Discuss the concerns of a crop physiologist in agriculture science. [**10]**

Question Three

a) Analyze the crop adaptation to dry conditions. **[5]**
b) Discuss different methods farmers can use to overcome high moisture stress. **[10]**
c) Analyze the types and causes of senescence. **[10]**

Question Four

a) Unpack the significance of senescence in crop plants. **[5]**
b) With the aid of crop physiology formulas, analyze the concept of growth and growth analysis. **[20]**

Question Five

a) Examine why crop production is considered to be an exercise in energy transformation. **[5]**
b) Discuss the external and internal factors affecting crop growth. [**20]**

Question Six

a) Analyze why the primary site of action of plant growth hormones at the molecular level remains unresolved. **[5]**
b) Discuss the five different groups of plant growth regulators and ascertain their commercial uses. **[20]**

END OF EXAMINATION PAPER