

ST STEPHEN'S COLLEGE BAJJA

S.5 AGRICULTURE P515/2

2 HOURS

SECTION A. (20 MARKS)

1. Table 1 shows the effect of water table level on the oxygen content of soil air, the yield of cotton and the plant up take of nitrogen and potassium.

Depth of water table (cm)	Oxygen content at soil depth of 23 cm (%)	Yield cotton (9)	Nutrient uptake by 5 plants (mg)		
			N	P	K
30	1.6	57	724	85	1091
69	8.3	108	1414	120	2069
90	13.2	157	2292	157	3174

- a) From your table, explain the effects of the depth of water table on the;
- (i) Oxygen content of soil air
 - (ii) Nutrient uptake by the plant
 - (iii) Yield of cotton
- b) From the table, suggest the effect of low depth of water table on the appearance of cotton plants.

SECTION B

CROP PRODUCTION

2. a) Describe the factors that should be taken into account when deciding spacing for a given crop variety. (12mks)
- b) Discuss the advantages and disadvantages of broad casting as a method of planting. (8mks)
3. a) Explain the factors that affect the following;
- (i) Symbolic nitrogen fixation. (4mks)
- (ii) Availability of phosphorous in the soil. (4mks)
- b) Describe the Nitrogen cycle. (12mks)

SECTION C

AGRICULTURE ECONOMICS

4. (a) Discuss the various types of uncertainties in agriculture. (10mks)
- b) Explain the various ways of reducing risks and uncertainties in agriculture. (10mks)
5. Discuss the process of marketing agricultural products. (20mks)

END