

AGRICULTURE PAPER 1 MARKING SCHEME		
S.NO	SECTION A (30 MARKS)	MARKS
1.	Biological Agents of Weathering - Burrowing animals - Human activities - Large animals exerting pressure on rocks - Plant roots forcing their way into rock cracks - Bacteria & fungi	2 marks
2.	Reasons for Proper Drying of Grains - Prevent sprouting while in the store - Increase the keeping quality - Prevent growth of fungi / Aflatoxin poisons - Harden seed coat minimizing pest damage - Reduce moisture content thus prevent rotting	2 marks
3.	Records a Maize Farmer Should Keep - Labour - Production - Field operation - Inventory - Marketing	2 marks
4.	Causes of Land Fragmentation in Kenya - Buying pieces of land - Shifting cultivation - Settlement & resettlement - Population pressure on limited area of land - Accumulation of land holdings: debtors fail to pay debt - Inheritance	2 marks
5.	Management Practices Carried Out on Agroforestry Trees - Protection of seedling - Pruning & training - Grafting - Weeding - Mulching - Watering - Control of pests & diseases	2 marks
6.	Reasons for Conserving Pasture - To avoid wastage in times of plenty - To ensure enough supply throughout the year - To earn income from selling excess - To ensure good utilization of land	2 marks
7.	Functions of Young Farmers Club (YFC) - Involvement in Agricultural projects at club level - Participating in Exhibitions & competitions at ASK shows - Participation in YFC annual rallies - Involvement in workshops & seminars related to Agriculture - Participation in national tree planting activities - Participation in national ploughing contest	1 mark
8.	Books of Accounts - Journal - Inventory - Cash book - Ledgers	1 1/2 marks

SECTION C																																																																		
21.	a) Competitive Ability of Weeds • Production of many seeds • Easily dispersible • Remain viable in soil for long time • Ability to propagate vegetatively • Having elaborate / extensive root system • Can survive in poor soils • Short life cycle b) Profit & Loss Account of Ushindi Farm for the Year Ended 31st Dec 2015 <table><tr><th>Expenditure</th><th>Ksh</th><th>ct</th><th>Income</th><th>Ksh</th><th>ct</th></tr><tr><td>Opening Valuation</td><td>30,000</td><td>00</td><td>Sales & Receipts</td><td></td><td></td></tr><tr><td>Purchases & Expenses</td><td></td><td></td><td>Bullocks</td><td>7,000</td><td>00</td></tr><tr><td>Paid wages</td><td>2,500</td><td>00</td><td>sheep</td><td>20,000</td><td>00</td></tr><tr><td>Bought machinery</td><td>49,000</td><td>00</td><td>farm produce</td><td>20,000</td><td>00</td></tr><tr><td>Bought animal feeds</td><td>20,000</td><td>00</td><td>Debt receivable</td><td>35,000</td><td>00</td></tr><tr><td>Computers</td><td>9,600</td><td>00</td><td></td><td></td><td></td></tr><tr><td>Debt Payable</td><td>550</td><td>00</td><td>Closing Valuation</td><td>30,000</td><td>00</td></tr><tr><td>Net Profit</td><td>13,350</td><td>00</td><td></td><td></td><td></td></tr><tr><td>Grand Total</td><td>112,000</td><td>00</td><td>Grand Total</td><td>112,000</td><td>00</td></tr></table> c) Factors Encouraging Soil Erosion • Lack of vegetation cover • Steep slopes • Overstocking • Deforestation • High Rlf (Rainfall) intensity • Overcultivation • Cultivation along the River bank • Ploughing up & down the slope • Sandy soils • Clean weeding					Expenditure	Ksh	ct	Income	Ksh	ct	Opening Valuation	30,000	00	Sales & Receipts			Purchases & Expenses			Bullocks	7,000	00	Paid wages	2,500	00	sheep	20,000	00	Bought machinery	49,000	00	farm produce	20,000	00	Bought animal feeds	20,000	00	Debt receivable	35,000	00	Computers	9,600	00				Debt Payable	550	00	Closing Valuation	30,000	00	Net Profit	13,350	00				Grand Total	112,000	00	Grand Total	112,000	00	6 marks <
Expenditure	Ksh	ct	Income	Ksh	ct																																																													
Opening Valuation	30,000	00	Sales & Receipts																																																															
Purchases & Expenses			Bullocks	7,000	00																																																													
Paid wages	2,500	00	sheep	20,000	00																																																													
Bought machinery	49,000	00	farm produce	20,000	00																																																													
Bought animal feeds	20,000	00	Debt receivable	35,000	00																																																													
Computers	9,600	00																																																																
Debt Payable	550	00	Closing Valuation	30,000	00																																																													
Net Profit	13,350	00																																																																
Grand Total	112,000	00	Grand Total	112,000	00																																																													

	b) Stages in Chemical Water Treatment • i) Filtration at water intake – Water passes through series of sieves to remove large solid particles. • ii) Softening of water – Water is mixed with sodium bicarbonate to soften it & Aluminium sulphate to coagulate solid particles. • iii) Coagulation & sedimentation – Solid particles settle down at the base of the tank. Water stays for 36 hours to kill bilharzia worms. • iv) Filtration – To remove all remaining solid particles. • v) Chlorination – Chlorine added to kill pathogens. • vi) Storage – Treated water is stored in large well covered tanks. c) Pieces of Information in a Receipt • Receipt number • Date of transaction • Amount of money received • Signature & stamp of the receiving person • Name of the person involve in transaction	6 marks 4 marks
23.	a) Reasons for Processing Agricultural Produce • Improves flavour • Transformed into finished product • To reduce bulkiness, transportation • Makes storage easier b) Procedure of Transplanting Cabbage Seedlings • Done at the onset of rains. • Nursery bed is watered thoroughly 2 hours before lifting. • Lift health & vigorous seedlings with a lump of soil using garden trowel. • Place the seedling at the centre of the planting hole. • Fill the hole with soil & firm soil around the base of the seedling. • Plant the seedling at the same depth as it was in the nursery. • Apply mulch. • Water the seedling regularly: morning & evening. c) Factors to Consider When Designing a Crop Rotation Programme • Fertility of the soil – Legumes should be included to help fix Nitrogen. • Crop nutrient requirement – Crops that uses a lot of nutrients should come first in newly-cultivated land. • Pest & diseases incidence – Plants of the same family should not follow in the crop rotation sequence. • Weed control – Crops that are difficult to weed should be alternated with those that are easy to weed. • Root depth of crops – Deep rooted crops should be alternated with shallow rooted. • Soil structure – Grass ley should be included to improve soil structure.	3 marks 7 marks 10 marks