

443 AGRICULTURE FORM 3
MID TERM 1 2026 MARKING SCHEME
TIME: 1 HOUR

- 1) **Differentiate** between under-sowing and over-sowing (1mk)
 - ✓ Under sowing is the establishment of pasture under a cover crop usually maize
 - ✓ Over sowing is the establishment of pasture legume e.g disodium in existing grass pasture
- 2) Name **four** methods of farming (2mks)
 - ✓ Mixed Farming ✓Nomadic pastoralism ✓Shifting cultivation ✓ organic farming ✓ agroforestry
- 3) State **four** categories of vegetables. (2 mks)
 - ✓ Stem vegetables ✓Root vegetables ✓ Fruit vegetables ✓Pod vegetables ✓Leaf vegetables ✓ bulb v
- 4) List **four** human factors that influence agriculture (2mks)
 - ✓Level of education and technology ✓Health ✓Economy ✓Government Policy ✓Cultural practices and religious beliefs ✓market forces
- 5) Give **four** reasons for treating water for use on the farm (2mks)
 - ✓To kill disease micro organism ✓To remove chemical impurities ✓To remove bad smell and taste
- 6) State the **function** of the following parts in digestive system of poultry (1½ mks)
 - Crop ✓Stores food temporarily and moisten water Gizzard ✓Grind and crush food into a paste
 - Caecum ✓Digest cellulose, absorb water and by products of microbial digestion
- 7) State **four** precautions that should be observed when using workshop tools (2mks)
 - ✓Tools should always be left in safe place after use ✓Use correct tool for correct job ✓Tools should be handled correctly when in use to avoid damage to the tool and injury to the user ✓Use of safety devices e.g fire extinguisher and first aid kit in workshop to reduce accidents ✓All tools should be kept properly on tool cabinets ✓Tools should be maintained and serviced to remain in good working conditions.
- 8) Give **four** reasons why burning is discouraged as a method of land clearing (2mks)
 - ✓A lot of organic matter are destroyed ✓market forces Soil microorganisms are destroyed ✓ can spread to unintended areas
- 9) Name **four** practices that enhance minimum tillage (2mks)
 - ✓Use of herbicides to control weeds ✓Use of Mulch ✓Timing cultivation ✓Restricting cultivation to the area where seeds are planted ✓Cover cropping ✓Uprooting slashing weeds on perennial crops
- 10) Give **three** sources of underground water ✓Springs ✓Boreholes ✓Wells
- 11) State **four** characteristics of a fertile soil ✓ Correct Ph ✓Proper drained ✓good water holding capacity. ✓good depth ✓adequate nutrient supply ✓free from excessive infestation of soil borne pest and diseases.
- 12) Name **four** breeds of dairy goats ✓Saamen ✓Aglo Nubian ✓British alpine ✓Toggernberg ✓Jamnapari
- 13) Name **two** types of Inventory records ✓ Consumable goods inventory ✓Permanent goods
- 14) List **four** symptoms of Nitrogen deficiency in plants (2mks)
 - ✓ Chlorosis ✓Leaf turns brown and fall off prematurely ✓Stunted growth ✓Leaves turn purplish in colour
- 15) Name **two** vegetative materials used to propagate pineapples ✓Crown and slip ✓suckers
- 16) Outline **four** factors considered when selecting a nursery site (2mks)
 - ✓ Topography ✓Nearness to water source ✓Type of soil ✓previous cropping ✓ security ✓ well sheltered place.
- 17) State **four** characteristics of a good grain store (2mks)
 - ✓Rat and vermin proof ✓ well ventilated ✓ Easy to load and offload ✓ Pest Free ✓ Leak proof ✓ Well secured ✓ Cool conditions to prevent over heating that would crack the grains
- 18) The following is a list of plant nutrients; copper, calcium, nitrogen, zinc, molybdenum, phosphorus, carbon, sulphur, iron and magnesium. Which of the above nutrients are? Macro elements ✓Nitrogen, phosphorus carbon, magnesium, sulphur, calcium Micro elements ✓Molybdenum, iron, copper, zinc Fertilizer elements ✓Nitrogen, Phosphorus Liming elements ✓ Calcium magnesium and sulphur
- 19) The diagram below illustrates a livestock parasite Identify the parasite illustrated ✓Tsetse fly
 - a) State the major harmful effect of the parasite ✓ transmit Trypanosomiasis
 - b) Explain three control measures of the parasite ✓ Bush clearing ✓Spraying their breeding sites ✓Use of fly traps with impregnated nets ✓use of sterilising agents



20. The diagram below is an illustration a tomato crop pest. Study it and answer the question that follows. Identify the pest. ✓ *American Ballworm Heliothis amigera*

- a) How can a farmer control the pest named in (a) above. ✓ *Spraying the tomato with insecticides*
 b) Name other **three** minor tomato pest. ✓ *cutworm, red spider, mite, nematode*

21a) State the importance of vegetables to a farmer ✓ *Goods complements for staple food* ✓ *Provide body with vitamins and minerals this acting as protective food.* ✓ *Parts of vegetables which are not used as human food may fed to livestock or used to make manure* ✓ *Vegetables are sold in markets hence farmer earns income*

b) Briefly describe the production of onions under the following sub-headings

i) Varieties ✓ *Red Creole* ✓ *Tropicana Hybrid* ✓ *White Creole*

ii) Ecological requirements ✓ *Hot and warm climate* ✓ *Altitude 2100m above sea level* ✓ *Fertile well drained soil* ✓ *Soil Ph 6-7* ✓ *1000mm of rain per year*

22a) Define the following terms as used in livestock health ✓

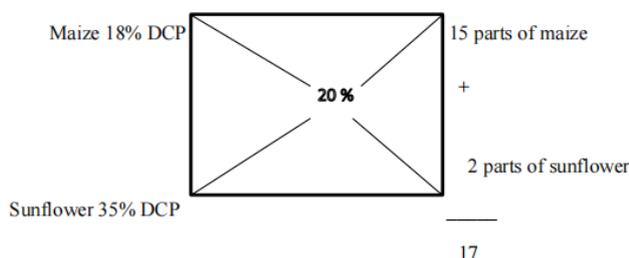
i) Disease ✓ *any deviation /alteration instate of body of animal or its organs which interrupts proper performance of its function*

ii) Health ✓ *State in which all body organs/systems are considered normal and are working normally.*

b) Differentiate between digestion in **ruminant** and **non-ruminants** ✓

Ruminants	Non-ruminants
✓ Chew curd	✓ Don't chew curd
✓ Polygastric	✓ Monogastric
✓ Regurgitate food	✓ Cannot regurgitate food
✓ Can digest cellulose	✓ Cannot digest cellulose except animals with microorganism in caecum
✓ No ptyalin in saliva hence no enzymatic digestion in mouth	✓ Has ptyalin in saliva hence enzymatic digestion starts in mouth
✓ Most absorption take place in rumen	✓ Most digestion and absorption take place in small intestines
✓ Has alkaline saliva due presence of ammonia	✓ Saliva is neutral in ph.

b) A farmer wanted to prepare 200kg of calf rearing ration containing 20 % DCP, using the person's square method calculate the amount of maize containing 18% DCP and sunflower containing 35% DCP the framer would need to prepare. (4mks show your working) ✓



$$15/17 \times 200 = 176.47 \text{ kg of maize}$$

$$2/17 \times 200 = 23.53 \text{ kg of sunflower}$$

23. Describe 5 factors to consider when selecting nursery site ✓ *Nearness to source* ✓ *Type of Soil* ✓ *Topography* ✓ *security* ✓ *previous cropping* ✓ *well sheltered place*