**AGRICULTURE (MARKING SCHEME) END YEAR EXAM – 2022 FORM TWO**

1. State four symptoms of liver fluke attack in sheep. (2mks)

* **Loss of weight and emaciation**
* **Pot- bellied condition due t watery swellings on the body of the affected animals.**
* **The animal suffer indigestion**
* **Damage to the liver tissues and haemorrhage due to movement of flukes within the liver**
* **Anaemic condition due to sucking of blood**
* **Dullness and the animal appearing depressed**
* **Swollen and painful abdomen**
* **Recumbency precedes death**

1. State four control measures of beef tape worm. (2mks)

* **Use of prophylactic drugs such as anti helminthes**
* **Keep animal houses clean and disinfected**
* **Practice rotational grazing and rest pastures to starve larvae to death**
* **Keep the feeding and watering equipment clean**
* **Use of latrines by farm workers**
* **Proper cooking of meat**

1. State four ways of controlling lice in poultry. (2mks)

* **Smearing the affected perches with volatile insecticide**
* **Dusting birds with appropriate insecticides**
* **Keep poultry house clean**
* **Picking and killing**

1. State four signs of infestations by external parasites in goats. (2mks)

* **Presence of sores/wounds on the skin**
* **Irritation / scratching by the animal**
* **Loss of hair**
* **Anaemia**
* **Presences of various developmental stages of the parasite on the animal.**

1. State four characteristics of roughage livestock feeds. (2mks)

* **High fibre content**
* **High carbohydrate content**
* **Low protein content**
* **Low in feed value**

1. State two functions of the crop in digestive system. (2mks)

* **Store food temporarily**
* **Moisten food with water**

1. State four factors that affect the digestibility of a feed in dairy animals. (2mks)

* **Chemical composition of feed**
* **Farm in which feed is offered**
* **The ratio of energy to protein the higher the ratio the lower the digestibility.**
* **Amount of feed already present in the digestive system**

1. State four functions of vitamins. (2mks)

* **Blood clotting**
* **Help in muscular activity**
* **Act as organic catalysts in various metabolic and physiological reactions**
* **Promotes growth**
* **Prevent diseases in animals**
* **Help in bone formation**

1. Prepare 100kg of pig ration containing 20% D.C.P using cereal balancer 10% D.C.P and cotton seed cake 30% D.C.P show your working. (4mks)

10 parts of cereal balancer

20%

Cereal balancer 10%

Cotton seed cake 30%

10/20 parts of cotton seed cake total parts

**Cereal balancer – 10/20 X 100 = 50kg**

**Cotton seed cake – 10/20 X 100 = 50kg**

1. Define the term Health in livestock. (1mk)

-  **A state in which all the body organs or parts and systems are considered normal and are functioning normally.**

b. State four physiological parameters that can be used as indicators of ill health in livestock. (2mks)

* **Abnormal pulse rate**
* **Abnormal breathing rate**
* **Abnormal body temperature**
* **Abnormal frequency of urination**
* **Bloody urine**
* **Reduced production**
* **Loss of appetite (anorexia)**
* **Abnormal dung e.g. too hard or too loose**

1. What are infectious diseases in livestock? (1mk)

* **Diseases that can spread from one animal to another**

b. Name the causes of infectious diseases in livestock. (1 ½ mks)

* **Virus**
* **Bacteria**
* **Protozoa**

c. Explain two different ways through which good nutrition can help to control diseases in livestock. (2mks)

* **Improves body resistance against diseases**
* **Keeps off nutrients deficiency diseases**

d. Define the term Quarantine. (1mk)

* **Is the restriction of movement of animals and their products from and into the affected areas in the event of an outbreak of a notifiable disease.**

1. Identify the cabbage pest shown below. (1mk)

b. Suggest three possible control measures for the pest. (3mks)

* **Scoop and destroy the pest**
* **Use of suitable pesticides**
* **Early planting**
* **Field hygiene**

c. Name two diseases of cabbage crop. (1mk)

* **Damping off**
* **Black rot**
* **Downy mildew**
* **Dry rot canker (black leg)**
* **Dark leaf spot**

1. State four factors considered when selecting a site for a tomato nursery bed. (2mks)

* **Nearness to the water source**
* **Type of soil**
* **Topography**
* **Previous cropping**
* **Security**
* **Well sheltered place**

1. State three advantages of single stem pruning over multiple stem pruning. (1 ½ mks)

* **Allows easy picking**
* **Allows easy spraying**
* **Minimizes breakage of branches**

1. State four qualities of an ideal grain store. (2mks)

* **Leak proof**
* **Rodent/vermin proof**
* **Well ventilated**
* **Easy to load and off load**
* **Well secured to minimize theft**
* **Easy to clean**
* **Pest proof**

1. State four factors that determine the harvesting stage of a crop. (2mks)

* **Purpose of the crop or the used for which the crop was intended.**
* **Market demand**
* **Concentration of the required chemicals**
* **Weather conditions**
* **Prevailing market price and profit margins**

1. Give the importance of carrying out the following in a nursery bed.
2. Pricking out (1mk)

* **To allow seedlings to grow strong and healthy without much competition.**

1. Hardening off (1mk)

* **To prepare seedlings to adapt to the ecological conditions prevailing in the seedbed.**

1. Study the illustration in the diagram below and answer the questions that follow. (1mk)
2. Identify the practice being illustrated. (1mk)

* **Transplanting/lifting of seedlings**

1. State three activities that should be carried out for successful results in the practice shown above. (3mks)

* **Watering thoroughly before lifting**
* **Lifting seedlings with a ball of soil on roots**
* **Lifting early in the morning/evening /cloudy day**

1. At what stage should the practice be carried out in vegetable seedlings. (1mk)

* **One month old / 4- 6 true leaves / 10-15cm in height**

1. State four advantages of row planting. (2mks)

* **Machines can be used easily between rows**
* **It is easy to establish the correct plant population**
* **Lower seed rate is used than if broadcasting is adopted**
* **It is easy to carry out cultural practices such as weeding, spraying and harvesting**

1. State four factors considered in timing planting. (2mks)

* **The rainfall pattern**
* **Type of crop to be planted**
* **Soil type**
* **Market demand**
* **Prevalence of pest and diseases**
* **Weed control**

1. State four aspects of rainfall that influence agriculture. (2mks)

* **Rainfall reliability**
* **Intensity of rainfall**
* **Amount of rainfall**
* **Distribution of rainfall**

1. State four effects of applying excessive nitrogen in crop production. (2mks)

* **Lodging**
* **Excessive succulence**
* **Relayed maturity**
* **Blossom end rot in tomatoes**
* **Cracking of fruits before maturity**
* **Excessive vegetative growth**

1. State two causes of hard pans. (2mks)

* **Constant shallow cultivation or ploughing**
* **Continued ploughing using heavy machines when wet**

1. Name three tertiary operations carried out in land preparation.(1 ½ mks)

* **Ridging**
* **Rolling**
* **Leveling**

1. Name three types of pumps used by farmers. (1 ½ mks)

* **Semi-rotary pumps**
* **Hydrams**
* **Centrifigual**
* **Piston/reciprocating**

1. Give four reasons for treating water before use. (2mks)

* **Remove bad smell**
* **Kill diseases causing micro-organism/pathogen**
* **Remove solid particles / impurities**
* **Remove chemical impurities such as fluorides**

1. State four factors that affect the quality of farm yard manure. (2mks)

* **Type of animal**
* **Type of food eaten**
* **Type of bedding material**
* **Method of storage**
* **Age of farmyard**

1. Name four breeds of dairy goats. (2mks)

* **Toggenburg**
* **Saneen**
* **German alpine**
* **Anglo nubian**

1. Give two types of labour records. (2mks)

* **Master roll**
* **Analysis on the use of labour**

1. Define agricultural economics. (1mk)

* **Is an applied science carried out on maximizing the output and minimizing the cost of production by using scarce resources available.**