**PAPER 2**

**MARKING SCHEME**

1. Non-chemical methods to control ticks
* Burn infested pasture
* Hand pick and kill
* Rotational grazing
* Double fencing
* Restrict animal movement (zero grazing) (4 x ½=2mks)
1. Management practices on broody hen
* Provide drinking water adlip
* Provide balanced diet
* Dust with insecticide to control parasites
* Give hen chance to exercise ( 2 x 1=2mks)
1. Characteristics of good fish pond
* Gentle slopping
* Reliable water source
* Area with no cracks/anthills
* Clay soil which is poorly drained
* Secure from predators /thieves
* Site should be accessible (4 x ½=2mks)
1. Characteristics of beef breeds
* They are blocky
* They have strong short legs
* Bodies are well fleshed
* They have small udder
* They have thick neck ( 4 x ½=2mks)
1. Calf pen to control diseases
* Well ventilated
* Well lit
* Easy to clean
* Free from draught
* Spacious
* Lack proof
* Well drained
1. a) A dry cow theraphy – practice of applying mastitis antibiotic in teat canal in cow that is being dried off. (1mk)

b) Dry cow theraphy done last 2 months of gestation (1mk)

1. Structures to handle livestock
* Crush
* Calf pens
* Fences
* Milking shed
* Cattle shed (4 x ½=2mks)
1. Respiratory disorder
* Difficult breathing
* Coughing
* Snoring
* Sneezing
* Running nose (4 x ½=2mks)
1. Characteristics of poor layers
* Hard/stiff abdomen
* Full/well fleshed abdomen
* Small space between kneel and pelvic bone allow less than 2 fingers ( 2 x 1=2mks)
1. Mothering ability is ability of mother to care for young ones while prolificacy is ability of mother to produce many young ones at once. (Mark as a whole) ( 2 x 1=2mks)
2. Factors leading to female cow fail to conceive
* Poor nutrition
* Poor timing of services
* Infertile cow/bull ( 2 x 1=2mks)
1. Reason for culling dairy cattle
* Poor health
* Poor quality products
* Old age
* Wild temperament
* Low production (4 x ½=2mks)
1. Reasons for doing Agriculture as a discipline
* Provide skills in Agriculture and practices
* It is a career subject
* Createself-employment and self-reliance in food
* Agriculture promote environmental conservation
* Agriculture promote cohesion in diverse culture
* Agriculture promote school to take part in Agricultural practices eg young farmers

 (4 x ½=2mks)

1. Tools use to lay concrete block
* Plumb bob/plumb line
* Mason’s trowel
* Spirit level
* Wood float (4 x ½=2mks)
1. Factors pre-disposing animal to diseases
* Sex
* Colour
* Age
* Physiological conditions sickness/pregnancy/emaciation/lactating
* Physical injuries (4 x ½=2mks)

**SECTION B (20 MARKS)**

*Answer ALL questions in this section in the spaces provided*

16. The following is a diagram of an artificial incubator. Study it and answer questions that follow.

 (a) Identify the following parts shown by letters **A** and **B**. **(2 marks)**

 **A** *Thermometer*

 **B** *Warm water*

 (b) State **three** conditions that are necessary for a successful hatching. **(3 marks)**

* *Temperature should be ideal preferably 37.50C – 39.40C to maintain a healthy growth of the embryo.*
* *Fresh air is ideal in the incubator for embryonic development*
* *A relative humidity of 60% is ideal in production of healthy chicks during hatching.*
* *Egg turning regularly is necessary to avoid the germinal disk sticking onto the egg shell that leads to embryonic mortality*

17. Study the following farm implement and answer the questions below

 (a) Identify the above implement. **( ½ mark)**

 *Disc plough*

 (b) Identify the parts shown by letters **C**, **D**, **E**.  **(1 ½ marks)**

 **C** *Beam*

 **D** *Disc*

 **E** *Top link*

 (c) Give **three** reasons that make the implement better in land preparation.

 **(3 marks)**

* *Can be used in a field with obstacles as it rolls over them.*
* *The implement is hardly and does not break easily hence requiring less maintenance.*
* *The implement requires less draught power due to the rotting effect of the disc.*
* *The implement is suitable for hard and we sticky soils especially those dominated by clay.*

18. Study the following diagram and answer questions below.

 (a) Identify the above disease. **(1 mark)**

 *Fowl pox*

 (b) What causes the above disease? **(1 mark)**

  *Virus / Avian fox*

 (c) Give **two** predisposing factors of the disease. **(2 marks)**

* *Wounds on the body*
* *Presence of mosquitoes, ticks, lice, and other biting insects.*

 (d) Give **one** control measure of the disease. **(1 mark)**

* *Vaccinating all the healthy birds every 6 months*
* *Killing all the affected birds and disposing the carcasses properly*

19. (a) Hand spraying (1x1=1mks)

(b)Knap sack sprayer (1x1=1mks)

(c)

* The sprayer should be in good working conditions
* Use the recommended chemical concentration
* Complete wetting of the animal
* Animal should be property restrained (First 2x1 = 2mks)
1. Strip/bucket pump. (1x1 = 1)

 **SECTION C (40 MARKS)**

20. (a) Explain **eight** functions you can carry out in a crush. **(8 marks)**

* *Spraying livestock against external parasites*
* *Identifying the livestock by branding, ear tagging, ear notching*
* *Vaccination against notifiable diseases*
* *Administering prophylactic drugs to livestock in control of diseases*
* *Treating livestock with other medicants like antihelminths.*
* *Dehorning livestock to avoid risks of horns.*
* *Pregnancy, testing in identification of fertility.*
* *Artificial insemination in avoidance of natural mating.*
* *Taking body temperature in checking for fever.*
* *Hoof trimming to avoid foot rot.*
* *Milking the cows twice a day.*

 (b) Describe **six** advantages of rotational grazing.  **(6 marks)**

* *Maximum use of the pasture is made by livestock.*
* *Buildup of pests and diseases is reduced*
* *Animals faecal material is distributed evenly in all paddocks,*
* *Pastures are given time to regrow before grazing is done again.*
* *Excess pastures can be harvested and conserved.*
* *Fertilizers reseeding and weeding can be done on pastures that are not in use.*

 (c) Describe **six** effects of parasites on livestock. **(6 marks)**

* *Suck large volumes of blood causing anaemia in livestock.*
* *Deprive the host livestock food by extracting nutrients from the alimentary canal of the host animal.*
* *Injury and damage to tissues and organs mainly the skin and internal organs damaged during migration causing haemorrhage.*
* *The wounds created on the hides and skins are entry points of disease pathogens and infection.*
* *Many parasites are vectors of infectious diseases spreading them to other livestock.*
* *When parasites bite the livestock on their hides and skins they create irritation.*
* *Obstruction of internal organs mainly the small intestines occurs when internal parasites accumulate causing constipation.*

21. (a) Describe **eight** short term services that should be done to a farm tractor.

 **(8 marks)**

* *Engine oil should be checked daily by use of a dip stick and added if the level is low.*
* *The fuel should also be checked if low added.*
* *Water level should also be checked in the radiator and topped up.*
* *The electrolyte in the battery should be checked and topped up if below the plates.*
* *Bolts and nuts should be tightened daily.*
* *Greasing the nipples of the tractor is necessary.*
* *Sediments should be removed from the sedimentary bowl.*
* *Tyre pressure should be checked in the tyres and adjusted every day.*
* *The fan belt tension should be checked so that it can charge the battery by running the generator.*
* *Brake shaft bearing should be greased.*

 (b) Explain **five** reasons for maintaining farm tools and equipment. **(5 marks)**

* *Increase the durability of tools and equipment to last long.*
* *To reduce the replacement cost hence save on spending excessively.*
* *Increase efficiency so that work can be down with comfort without stress.*
* *Avoid injuries to the user that is done by blunt tools or those with poor handles.*
* *Avoid damage to the tools that may include breakages to the tools if poorly maintained.*
1. Causes of long calving intervals

 Poor health

 Poor nutrition

 Poor selection

 Incorrect time of service

 Irregular heat signs

 High milk production

 Type of breed

 Poor breeding methods

22. (a) Describe **ten** uses of fences on a farm. **(10 marks)**

* *Provide security from thieves, wildlife, trespassers.*
* *Enable paddocking/rotational grazing/mixed farming*
* *Control parasites and diseases by keeping away neighbouring animals*
* *Demarcating the boundaries.*
* *Live, fences act as windbreakers and shelter belts.*
* *Provide aesthetic value to the farm*
* *Increase the farm land value*
* *Help in soil and water conservation in case of hedges*
* *Hedges may be a source of fruits and their trimmings* *a source* *of fodder, firewood, compost manure.*
* *Provide privacy*
* *Isolation of animals for different purposes like treatment, gestation, bull isolation.*

(b) Explain **ten** factors a farmer should consider in the construction of farm

structures. **(10\*1marks)**

* *Sitting in relation to other buildings farm activities, security, accessibility, drainage.*
* *Orientation in relation to the prevailing wind direction and sunlight.*
* *Purpose and design is usually for the purpose intended considering the climate and size of the enterprise.*
* *Materials should account for the cost, availability, durability.*
* *Capital will depend on the cost of the structure and finances available.*
* *Flexibility by alternative uses of the structure.*
* *Required skill considering the skill required and that available on the farm.*
* *Government regulations have to be followed.*
* *Type of the building is also considered whether permanent or temporary.*
* *Future expansion is also considered while constructing.*