

Tigania South Pre-mock

May 2015

AGRICULTURE PAPER 1

MARKING SCHEME

1. *State two types of farming systems .* (1mrk)
 - Extensive system **12 x1=1mrk**
 - Intensive system **first two**
2. *State two advantages of concession company as land Tenure system.* (1mrk)
 - -Good economic results due to high efficiency in land use and management
 - Creating employment to the citizens
 - Revenue through paying taxes to the government *first ½ x2=1mrk*
3. (a) *Define the term pasture.* (½ mrk)
 - Land on which forage crops are grazed on directly.(b) *State three main ways in which pastures are classified .* (1½ mrks)
 - According to the pasture stand
 - According to the pasture establishment
 - According to the ecological zone / altitudes

First three ½ x3=1 ½
4. *Differentiate between mixed cropping and intercropping.* (2mrks)
 - Mixed cropping – the practice of growing of two or more crops in the same field but in specific sections at the same time
 - Intercropping – the practice of growing of two or more crops in the same field at the same time.

1x2=2mrks(mark as a whole)
5. *State three types of capital.* (1 ½ mrks)
 - Liquid capital
 - Working capital
 - Fixed capital

First three ½ x3= 1 ½ mrk
6. *State four advantages of overhead irrigation.* (2mrks)
 - Foliar fertilizers can be applied together with irrigation water saving labour costs

- Sprinkler systems can be easily moved from one place to another
- Less water wastage than in furrow irrigation
- Even water distribution over the required area.
- Can be practiced on sloppy grounds

First four $\frac{1}{2} \times 4 = 2$ mrks)

7. **State four factors influencing mass wasting or solifluction.** (2mrks)

- Climate
- Vegetation cover
- Forces within the Earth's crust
- Human activities
- Nature of material
- Slope of the land

First four $\frac{1}{2} \times 4 = 2$ mrks)

8. **State three harmful effects of crop diseases.** (1 $\frac{1}{2}$ mrks)

- Lower crop yields
- Lower quality of crops thus reducing their market value
- Cause food poisoning e.g. Aflatoxin ,ergot in wheat.

First 3x $\frac{1}{2} = 1 \frac{1}{2}$ mrks)

9. **State two functions of the coffee Board of Kenya.** (1mrk)

10. Give **four** factors that determine the stage at which a crop of maize is harvested. (2mrks)

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11. Name **three** vegetative parts used in the propagation of pineapples. (1 $\frac{1}{2}$ mrks)

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12. State **three** symptoms of sulphur deficiency. (1 $\frac{1}{2}$ mrks)

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13. List **four** types of farm records kept by a rabbit farmer. (2mrks)

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14. Name **three** forms that water exists in the soil. (1 ½ mrks)

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15. State **four** methods used in land clearing. (2mrks)

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16. Give **three** methods of controlling Blossom- end rot in a crop of tomatoes. (1 ½ mrks)

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17. State **four** benefits of weeds to farmers (2mrks)

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18. (a) State **three** methods of weed control in a crop of rice (1 ½ mrks)

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(b) Define the term agroforestry. (½ mrk)

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SECTION B(20MRKS)

Answer all question in this section

19. The diagram below illustrates a method of irrigation used on the farm. Study it carefully and answer the questions that follow.

(a) Name the method of irrigation illustrated above.

(1mk)

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(b) Give **two** disadvantages of the above method.

(2mrks)

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(c) Name **two** types of water pumps used to lift water on the farm.

(2mrks)

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20. The diagram below illustrates methods of pruning in crop production. Study them carefully and answer the questions that follow.

(a) Name the methods of pruning illustrated in the Figure **A** and **B**.

(2mrks)

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(b) State **two** where the method of pruning shown Figure **A** is recommended.

(2mrks)

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(c) Give **two** systems of pruning in coffee. (1mrk)

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21. The diagram below shows common crop pests on the farm. Study them carefully and answer the questions that follow;

(a) Name the parts represented by letter **D** and **E**. (2mrks)

D.....

E.....

(b) State **two** damages of pest **D** (2mrks)

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(c) State **one** control measures of pest **E** (1mrk)

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22. The illustration below represent common weeds on the farm . Study them and answer the questions that follow.

(a) Name The weeds represented by letters **K,L,**and **M**. (3mrks)

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(b) State **one** reason why weed **M** is difficult to control (1mrk)

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(c) Suggest **one** effective method of controlling weed **M** (1mrk)

SECTION C940MARKS)

Answer any two questions in this section in the spaces provided

23. State and explain factors influencing soil erosion (20mrks)
24. Describe the production of maize (zea mays) under the following headings
- (a) Uses (3mrks)
 - (b) Land preparation (3mrks)
 - (c) Planting (5mrks)
 - (d) Fertilizer Application (3mrks)
 - (e) Disease (4mrks)
 - Harvesting (2mrks)
25. (a) State and explain the factors considered when selecting a nursery site. (10mrks)
- (b) State and explain five nursery management practices carried out on tomato seedlings

TIGANIA SOUTH JOINT EXAMINATION MAY 2015

MARKING SCHEME

SECTION A[30MARKS]

1.Angola goat [0.5mks.]

2.-Nearness to nectar producing flowers.

-Shady/cool place/bushy.-Accessible to water.

-Safe distance from livestock/homestead/road.

-Away from disturbances and noise.-Protected from predators.[1.5mks]

3.-Control stocking rate.-Control water pollution.-Supply food.-Control predators.

-Aeration of water by flowing.-Appropriate depth.-Right maturity harvest.[2mks.]

4.-Avoid poisoning by chemicals;-Discourage insect pests;-Avoid tainting milk.[1mk.]

5.-Fresh water snail/Mud snail.[0.5mk]

6.18-22days[0.5mk.]

7.Any time between 6.00 pm and midnight.[1mk.]

8.-More water when the temperature is high;-Dry food demands more water;

-Heavy producers and draught animals demand more ;-Body size;-Species of the animal.[2mks.]

9.-Sash clamp ;-G clamp ;-Quick action vice ;-Table clamp .[1.5mks.]

10.-Check length of work ;-Check angle of work ;-Check level of work ;

-Check square of work;[1.5mks.]

- 11.-Manouvre a corner without skidding;-Transform circular motion of propeller shaft to traction of the hub ;-Enables wheels to last long.[1.5mks.]
- 12.-Serrated discs ;-Off-setting the gangs ;-Deep penetration ;-Harrowing when the soil has appropriate moisture ; [1.5mks]
- 13.-Meat;-Milk;-Hide;[1.5mks.]
- 14.25th-29th October2014[0.5mks.]
- 15.-Starts to build a nest using her fur;-Goes off food;[1mk.]
- 16.-Piece of wood is very small;-Surface required not very smooth;[0.5mks.]
- 17.-Checking perpendicularity of a building wall;[0.5mks.]
- 18.-Fleece wholly covers the body;-Open white face/does not suffer from blindness;-Hornless/docile/hardy;-Lambing % of100-125;-Fleece heavy and of good length; [2mks.]
- 19.-Loss of hybrid vigor;-Decline in fertility;-Reduced performance;-Pre-natal mortality;[1mk.]
- 20.-Anthrax;-Black quarter;-Scours; Contagious abortion;-Mastitis;-Calf pneumonia.[2mks.]
- 21.-Ear notching;-Tattooing;-Ear tagging;[1mk.]
- 22.-Field with obstacles;-Field with hard pans;-Field with sticky soil;-Very dry soil; [1.5mks.]
- 23.-Dullness;-Muscular twitching;-Staggering;-Animal falls and is unconscious;- Animal lies with the body stiffening;-Body functions fail;-Loss of appetite;- Stomach contents drawn to the mouth causing lung fever;[1.5mks.]
- 24.-Provide nutrients for foetal growth;-Energy for parturition;-Healthy offspring; -Healthy dam;-High milk yield afterbirth;[2mks.]

SECTION B[20MKS.]

25.[a]-The span of the building expands at the top out wards;[1mk.]

[b]-Tie beam/cross tie;-Rafter batten;-Struts;[2mks.]

[c]-Protects the rafter from attack by pests/disease/weather;-Attachment of gutters;-Add beauty to the structure;[2mks]

26.[a]-A—very cold ;-B—very hot;--C—optimum temperature;-D—draught from one direction;[2mks.]

[b]-Use a thermometer;[1mk.] [c]-Spreads wings;-Pants/wide open beaks;Lie on their abdomen flat;-Make a lot of noise;-Drink a lot of water;[2mks]

27[a]Protect the sow from lying/trampling on the piglets;[1mk.]

[b]-Dunging area;-Exercise area;-Basking area for piglets;-Resting area;[2mks.]

28.[a]-Wool shearing;[1mk.][b]-Shearing on a clean floor free from grease and oil; -Done during a dry season;-Care taken not to cut skin,testicles,udder,teats;[3mks.]

29.[a]-Stores food temporarily;-Moisten the food;[[2mks.].

[b]-Contains micro organisms that digest cellulose.[1mk.]

SECTION C[40 MARKS]

30.[a]-A young animal not parturated more than three times;-Productive animal from records or productive parents;-Physically fit with no deformities;-Healthy; -Body conformation that adheres to the type of the animal;-Temperament or behavior that shows docile and calm;-Good quality products ;-Mothering instinct that is good;-Adaptable to the climatic conditions;-Prolific in bringing forth many off springs.[10mks.]

[b]-Cause anemia by sucking a lot of blood;-Deprive host food causing emaciation;-Damage tissues and organs exposing the host to secondary infection;-Spread diseases to healthy animals;-irritate the host causing rubbing

against obstacles and damaging skin and coat;-Cause obstruction of internal organs leading to constipation;[5mks.]

[c]-Burning infested pastures kills all stages of ticks;-Ploughing the pasture desiccates the ticks in the sun;-Top dressing the pasture with lime or acaricide;-Fencing the pasture keeps away strange animals;-Rotational grazing and pad docking starves the ticks to death;-Hand picking the ticks and killing them;[5mks.]

31.[a]-Lack of food ; -Outbreak of parasites and diseases;-Sun lights over heating the bee hive ; -Bad smell from the surrounding areas;-Presence of more than one queen;-Infertility of the queen;[5mks.]

[b]-Clean and disinfect far rowing pen;-Place dry ,warm bedding in the pen;-Provide a far rowing crate;-Wash the sow with water and soap;-Dust with an appropriate chemical to control external parasites ; -Isolate the sow to the far rowing pen 3 days before far rowing;[5mks.]

[c]-Cause---virus/borna virus[1mk.]

-Attacks---poultry/birds [1mk.]

Symptoms are:

-Gland above the vent swells/bursa ;--Egg production declines ; -Birds develop respiratory distress ; -Loss of appetite/low water intake ; -Drooping wings ; -Hemorrhage of the muscles /swollen liver/spleen/kidneys;-Restlessness;-Birds are sleepy .[6mks.]

Control:-Vaccinate the birds ; -Farm hygiene ; -Administering vitamins B2;[2mks.]

32.[a]-Cheap to acquire;-Work out put higher than human power;-Does not require skills ; -Can work well in areas where tractor cannot operate like small rugged areas;-Can be used in steep/sloppy areas where a tractor cannot ; -Animals provide manure and biogas;[5mks.]

[b]-Increases efficiency of machines hence reducing wear and tear;-Cools the engine by dissipating the heat created by rubbing surfaces acting as a seal ; -

Prevents rusting of stationery machinery;-Acts as a cleaning agent by absorbing dust, dirt, soot, and metal chippings from the oil to the sump ;[4mks.]

[c]-Availability of the materials ;-Workability of the materials ;-Durability of the materials ;-Strength of the materials ;-Cost of the materials ;-Use or purpose of the structure ;-Suitability of the material to the prevailing weather conditions;[6mks.]

[d]-High standards of cleanliness ;-Dryness and warmth of the pen;-Adequate space for feeding ,watering exercise; -Proper lighting ;-Proper drainage ;-Draught free as a precaution against pneumonia ;-Proper ventilation ;-Single housing to avoid infection .[5mks.]