

**PRIMARY TEACHER MOCK EXAMINATION  
AGRICULTURE MARKING SCHEME**

**SECTION A (30 MARKS)**

1. **A teacher is planning to carry out a maize production project with the learners**

a) **Challenges that the teacher was likely to face**

- Challenges
- Availability of adequate land.
- Availability of tools and equipment
- Availability of inputs.
- Availability of funds
- Unfavourable weather / rainfall
- Prevalence of pests and diseases
- Care of the project during the holidays.

**(Any 4 x 1 = 4 marks)**

b) **Roles of the teacher before the project**

- Organize the learners into groups.
- Give instructions
- Provide materials / inputs
- Decide on the mode of evaluation / assessment
- Decide on the time for the project.

**(Any 4 x 1 = 4 marks)**

2. a) **State three characteristics of a good audio visual teaching resource**

- Should be clear / shows required details
- Should be visible.
- Should be relevant to the topic
- Relevant to the level of the learners.
- Should appeal to several senses.

**(Any 3 x 1 = 3 marks)**

b) **A teacher is planning to teach the topic weeds**

**i) Teaching aids the teacher can use for the lesson**

- Samples of weeds.
- Pictures of weeds
- Diagrams / illustrations of weeds / charts.
- Video clips on weeds
- Tools / equipment
- Herbicides

**(Any 3 x 1 = 3 marks)**

**3. The statement of objectives is an important component of a scheme of work**

**a) Reasons why objectives are important**

- They help in selection of content / learning experiences.
- They help in determining teaching / learning experiences
- Assist the teacher in the selection of appropriate teaching methods.
- Helps in the of learning / teaching resources.
- Help in determining the evaluation criteria.

**(Any 4 x 1 = 4 marks)**

**b) Name four sources of information which a teacher can use when developing a scheme of work**

- Syllabus
- Internet
- Text books
- Record of work covered / previous schemes of work / lesson notes
- Environment e.g farmers, teacher, extension officers.

**(Any 4 x 1= 4 marks)**

**c) Name the main component of a lesson presentation**

- Lesson development

**(1 x 1 = 1 mark)**

**4. a) Give four reasons why assessment is important in the teaching of science**

- Determine effectiveness of teaching method.
- Determines learners / learning progress
- Motivates learners to study / work hard.
- Determines the effectiveness of teaching / learning resources.
- Determines achievement of curriculum / objectives.

- Helps to promote learners to the next level.

(Any 4 x 1 = 4 marks)

**b) State three advantages of multiple choice tests**

- They are to score.
- There is a wide coverage of the content areas.
- There is objectivity in scoring.
- They have a more diagnostic power.

**SECTION B (40 MARKS)**

**5. Factors affecting spacing in crops**

- Suckering / tithering ability
- Soil fertility
- Purpose of the crop.
- Moisture content of the soil.
- If the field is to be mechanized.
- Growth habit of the crop.
- Variety of the crop.

(Any 4 x 1 = 4 marks)

**6. Considerations done in sitting a nursery bed.**

- Drainage
- Topography / slope/ gradient of the area
- Availability of water
- Security

(Any 3 x 1 = 3 marks)

**7. Define the term soil texture**

- Relative proportions of the various soil particles / smoothness or roughness of soil particles when felt between fingers.

(1 x 1 = 1 mark)

**8. Land reclamation methods**

- Drainage
- Irrigation
- Tse tse fly control
- Afforestation.

(2 x 1 = 2 marks)

**9. Name any two external parasites and any two internal parasites of cattle.**

**i) External**

- Mites
- Ticks
- Tse tse flies

(2 x ½ = 1 mark)

ii) **Internal**

- Roundworm
- Tapeworm
- Hookworm
- Liver fluke
- Wire worm

(2 x ½ = 1 mark)

10. **Reasons for steaming up in dairy cattle management**

- Prepare the cow for the next lactation

(2 x 1 = 2 marks)

11. **Reasons for grafting fruit trees**

- The plant gets certain benefits of rootstock
- To propagate crops which cannot be propagated using other methods.
- For early maturity.
- To get different varieties of fruits
- Repair dead branches
- Change crop variety

(2 x 1 = 2 marks)

12. **Uses of a rake in the preparation of a seedbed**

- Gathering vegetation / rubbish
- Creating a fine tilth for planting
- Leveling the seedbed.

(2 x ½ = 1 mark)

13. **Conditions that may make it necessary to place some sugar syrup close to a beehive**

- During adverse weather conditions to maintain bees.
- To attract bees when beehive is empty.

(2 x 1 = 2 marks)

14. **Factors affecting the depth of planting**

- Soil moisture
- Size of seeds
- Type of soil

(2 x 1 = 2 marks)

15. **Sections that should be included in a school farm**

- Commercial section
- Crop museum
- Project section
- Demonstration section
- Experimental section.

**(4 x 1/2 = 2 marks)**

**16. Exotic dairy cattle breeds in Kenya.**

- Guernsey
- Friesian
- Ayrshire
- Jersey

**(4 x 1/2 = 2 marks)**

**17. Sources of heat when brooding chicks artificially**

- Paraffin lamps.
- Infra – red bulbs / electricity
- Charcoal burners
- Gas burners

**(4 x 1/2 = 2 marks)**

**18. Reasons for dehorning cattle**

- To give more room when the cattle are feeding / horsed / transported.
- Avoid injury to other animals or people.
- To avoid damage to structure.
- To make them docile.

**(2 x 1 = 2 marks)**

**19. Qualities of creep feed that makes it suitable for piglets**

- Easily digestible
- Rich proteins

**(2 x 1 = 2 marks)**

**20. Factors that may influence the quality of farm yard manure.**

- Type of beddings used.
- Type of feed given to animals
- Method of storage

- Age of farmyard manure / period of storage
- Age of livestock producing manure
- Type of livestock.

(3 x 1 = 3 marks)

21. **Reasons why indigenous cattle breeds do better than exotic breeds in arid and semi – arid areas**

- Can walk for long distances in search of pasture and water.
- Tolerance to diseases and parasites.
- Can survive on poor quality pasture
- Can withstand high temperature

(3 x 1 = 3 marks)

22. **Disadvantages of zero grazing**

- Problem of manure disposal
- Equipments are expensive
- Requires more labour
- Diseases and parasites can spread easily.

(3 x 1 = 3 marks)

**SECTION C (30 MARKS)**

23. **Factors which a farmer should consider when designing a crop rotation programme**

- Crops which are heavy feeders should be followed with light feeders to give soil time to recover / replenish nutrients.
- Crops which are deep rooted should be followed by shallow rooted for proper utilization of nutrients from different layers.
- Crops attacked by different crop pests and diseases should be alternated in order to prevent spreading and accumulation of pests and diseases.
- Crops associated with certain weeds should be alternated with those which are not affected by the same weed in order to control such weeds.
- Crops with different labour requirements should be included in a rotation for the reason of better spread and utilization of labour

(5 x 2 = 10 marks)

24. **Disadvantages of communal tenure system**

- Farmers exploit land by continuous cropping and overgrazing
- Difficulties in farm planning
- Difficult to give extension services
- Difficult to improve livestock through proper breeding.
- Lack of incentives to improve land because of tenure insecurity.
- Farmers cannot obtain credit due to lack of title deeds.
- Farmers lack incentives to carryout soil conservation measures.
- Output is generally low due to the traditional production methods.
- Difficult to control pests, parasites and diseases.
- Difficult to improve pasture.

**(5 x 2 = 10 marks)**

25. a) **Measures that a farmer should take when spraying livestock against ticks.**

- The spray should be in a fine mist / adjust the nozzle to produce a fine mist.
- Spray at regular intervals.
- The chemical should be mixed according to the manufacturer's instructions.
- The nozzles of the pump should be good in working condition.
- The operator should wear protective clothing.
- The animal should be restrained properly.
- Follow the correct procedure of spraying.

**(5 x 1 = 5 marks)**

b) **Factors which should be considered when culling in livestock**

- Mothering ability
- Production level.
- Old age
- Presence of physical deformities
- Infertility / sterility.
- Presence of hereditary defectors
- Bad temperature.

**(5 x 1 = 5 marks)**

**26. Structural requirements of a calf pen**

- Should be large enough for calves to move around and exercise.
- Should be well drained to prevent dampness so as to control diseases.
- The walls should be solid especially side facing the wind to control cold winds.
- The calf pen should be easy to clean for hygienic purposes.
- The floor should be made of material which retain heat to make the calves comfortable in cold weather.
- The pens should be well ventilated to allow fresh air circulation.
- Calf pens should be properly lit for calves to obtain vitamin D and sunlight.
- The calves should be housed in each other which may lead to formation of hair balls.

**(5 x 2 = 10 marks)**