

**THE UNITED REPUBLIC OF TANZANIA  
NATIONAL EXAMINATION COUNCIL OF TANZANIA  
DIPLOMA IN SECONDARY EDUCATION EXAMINATION**

735

**AGRICULTURE TEACHING METHODS**

**Time: 3 Hour.**

**Monday, 13<sup>th</sup> May 2002 p.m.**

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**Instructions**

1. This paper consists of section **A** and **B**.
2. Answer **all** questions in section A, and **four (4)** questions from section B.
3. Section A carry **forty (40)** and section B carries **sixty (60)** marks.
4. Cellular phones are **not** allowed in the examination room.
5. Write your **Examination Number** on every page of your answer booklet(s).

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### **SECTION A (30 Marks)**

Answer all questions from this section.

1. List four examples of vegetative propagation methods used in crop production.
2. Mention four benefits of farm budgeting in school agricultural projects.
3. State four types of irrigation used in Tanzania.
4. Identify four common signs of heat in female cattle.
5. Give four advantages of using organic manure over chemical fertilizers.
6. List four post-harvest practices carried out on harvested maize.

### **SECTION B (40 Marks)**

Answer any four (4) questions from this section.

7. Explain five reasons why record keeping is important in managing a school poultry project.
8. Describe five characteristics of hybrid maize seeds that make them preferable to local varieties.
9. Discuss five common causes of spoilage in stored food crops.
10. A farmer applied 25 kg of DAP fertilizer containing 18% nitrogen and 46% phosphorus on 0.5 hectares of maize.
  - (a) Calculate the total nitrogen applied.
  - (b) Calculate the total phosphorus applied.
  - (c) What is the average rate of nitrogen application per hectare?
  - (d) Suggest two effects of excess phosphorus in the soil.
  - (e) State two benefits of calculating nutrient application rates in crop production.
11. Explain five precautions to be taken when spraying pesticides on vegetable crops in school gardens.

12. A livestock project kept 15 goats. Each goat consumed 2.5 kg of feed daily for 30 days.
- (a) Calculate the total feed consumed during the period.
  - (b) If the cost of 1 kg of feed is 1,200 TZS, find the total cost of feed.
  - (c) What is the average feed cost per goat per day?
  - (d) Give two reasons for monitoring feed consumption in livestock projects.
  - (e) Suggest two ways of reducing feed cost in school livestock projects.

### **SECTION C (30 Marks)**

Answer any two (2) questions from this section.

13. Prepare a lesson plan summary on “Methods of Crop Propagation.” Include:
- (a) Objectives
  - (b) Key content
  - (c) Teaching aids
  - (d) Learning activities
  - (e) Assessment and conclusion
14. Write a project report on vegetable farming carried out in your school. Include:
- (a) Aim of the project
  - (b) Methods used
  - (c) Results and analysis
  - (d) Lessons learned
  - (e) Challenges and solutions
15. Write an essay explaining five criteria for selecting livestock breeds for school farming projects, and five risks involved in livestock production.
16. Describe five stages in preparing silage and explain five reasons why silage is important in school animal feeding programs.

17. A student group is planning to grow tomatoes. Describe five key stages they must follow from land preparation to harvesting and explain five problems they may face during the project.
18. Discuss five ways of integrating agriculture with other subjects in the school curriculum and explain five benefits of such integration to learners.