

CHRISTIAN SOCIAL SERVICES COMMISSION (CSSC)
NORTHERN ZONE JOINT EXAMINATIONS SYNDICATE (NZ-JES)



FORM FOUR PRE – NATIONAL EXAMINATIONS, 2026
AGRICULTURAL SCIENCE 1

034/1

TIME: 3:00 Hours

Wednesday, 26th August, 2026 p.m

Instructions

1. This paper consists of Sections **A, B and C** with a total of **eleven (11)** questions.
2. Answer **all** questions in sections **A and B** and **two (2)** questions from section C.
3. Section A carries **16 marks**, section B carries **54 marks** and C carries **30 marks**.
4. All writings must be in **blue** or **black** ink.
5. All communication devices and any unauthorized materials are **not** allowed in the examination room.
6. Write your **Examination Number** on every page of your answer booklet(s).

SECTION A (16Marks).

Answer **all** questions from this section.

1. For each of the following items (i) – (x) choose the most correct answer from among the given alternatives and write its letter in the answer booklets provided.
 - (i) In areas where coffee is grown, farmers are advised to have tools for removing excessive branches which are less or not productive. Which tools among the following would you advise farmers to possess in order to perform the task?
A Shears
B Secateurs
C Sickles
D Forks
E Slashers
 - (ii) In areas with heavy rainfall, soil is usually poor in fertility due to;
A. Leaching.
B. Percolation.
C. Infiltration.
D. High evaporation rate.
 - (iii) When a pregnant animal gives birth to a young animal, the udder starts secreting milk. This action is called;
A. Nursing.
B. Gestation.
C. Calving interval.
D. Lactation.
 - (iv) A feed that is highly digestible and have high nutritive value belongs to a class of animal feed called;
A. Supplement.
B. Concentrates.
C. Succulents.
D. Roughages.
 - (v) Among of input used in production process, one is fixed. That input is called;
A. Capital.
B. Land.
C. Entrepreneurship.
D. Labor.
 - (vi) Mr. Juma took a piece of shoot called scion and fixed it on to plant root stock. Which method of vegetative propagation is used by Juma?
A. Budding.
B. Grafting.
C. Layering.
D. Marcotting.
 - (vii) The following are the examples of crops which add and improve food taste and aroma except?
A. Ginger.
B. Black pepper.
C. Garlic.
D. Tangerines.

- (viii) Early planting of crops in the season is the example of controlling weeds under which method?
- Mechanical control.
 - Chemical control.
 - Cultural control.
 - Biological cultural.
- (ix) Mary's farm contain a lot of stones and plant roots. She is planning to cultivate it this year. Which primary tillage implements you can advise her to use for cultivating a given soil.
- disc plough
 - Mouldid board plough
 - Cultivators
 - Disc harrow
- (x) Which parasites can be controlled by drenching?
- Tick and fleas.
 - Tsetse fly and mites.
 - Houseflies and lice.
 - Tape worms and liver flukes

2. Match the statements in **List A** against the terms in column **List B**.

LIST A	LIST B
(i) Rhizomes	A. Are short and swollen underground stems protected by dryscale leaves.
(ii) Suckers	B. Are small plants that grow from the base of the main stem.
(iii) Corms	C. A swollen modified stem that runs horizontally under the ground.
(iv) Crowns	D. Are born on top of fruits and are broken off and prepared for planting.
(v) Tubers	E. Are underground food storage organs which are thick and short and some are long.
(vi) Bulbils	F. Structure that grows on plant and can develop on a new plant through vegetative propagation.
	G. Are born at the base of the pineapple fruits.
	H. Are flattened stems with nodes bearing fleshy scale leaves surrounded by some dry leaves.

SECTION B: (54 MARKS)

Answer **all** questions.

3. Prevention is always better than cure. Justify this statement by giving six preventive approach against livestock disease. **(9marks)**
4. Briefly explain uses of the following protective gears as used in beekeeping**(9marks)**
- Bee veil.
 - Plastic container.
 - Hive tool.
 - Ventilated helmets.
 - Gloves.
 - Foot wear.
 - Bee overall.
 - Bee smoker.
 - Honey squeezer.

5. (a) Nomadic pastoralism is still a common livestock keeping system in some part of Tanzania. How is it practiced? **(3marks)**
 (b) State **six (6)** characteristics factors to consider in selecting farm machinery **(6marks)**.
6. (a) As a knowledgeable student, how will you advise Mr. Juma on criteria he will use in selecting good planting material for good output (Give **two** points) **(3marks)**
 (b) A farmer has different combination of crops on the farm during a particular cropping season. As an expert explain four criteria used in selecting cropping systems**(6marks)**.
7. A farmer has 50 dairy cows. During the past year he faced a lot of problems. There was a serious drought, concentrates were difficult to obtain and water was not easily available. He spent a total of shillings 80,000/= on animal feeds and shillings 1,200/= on veterinary services. In addition, he bought 4 calves to replace 4 cows which he had culled. The cows were sold at shillings 12,000/= each whereas the calves were bought at shillings 2,300/= each. Total milk output was 10,000 gallons and each gallon was sold for shillings 250/=. Calculate the gross margin per cow. **(9 marks)**
8. The following items present different practices observed in agricultural fields:-
 - (i) Tomato plants were irregularly watered.
 - (ii) Organic Manure is used on soil growing carrots plants.
 - (iii) More than one variety of sweet potatoes and pepper was grown on the same piece of land at the same time.
 - (iv) Nitrogenous fertilizer was applied on soil-grown cassava.
 - (v) Sunflower crop plants were grown in wet weather condition.
 - (vi) Maize leaves were observed with yellow coloration.

Identify the problem that can arise in each case above. **(9 marks)**

SECTION C: (15 Marks)

Answer any **two (2)** questions in this section.

9. Fish farming has become a popular economic enterprise both in rural and urban areas because it's simple to undertake and do not need high investment. Discuss the necessary consideration when selecting the site to construct an earth fish pond. give **six (6)** points**(15 marks)**
10. Land conflicts in some parts of Tanzanian are influenced by land tenure system. What should be done to resolve the conflicts? Use **six (6)** points. **(15 marks)**
11. Agriculture is one among the science subjects taught in Tanzanian secondary schools. Using **six (6)** points, explain how the knowledge of other subjects can be used in agriculture subject. **(15marks)**