

THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL OF TANZANIA
ADVANCED CERTIFICATE OF SECONDARY EDUCATION
EXAMINATION
134/1
AGRICULTURE 1

(For Both School and Private candidates)

Time: 3 Hours

Year: 2020

Instructions

1. This paper consists of sections **A** and **B** with a total of **ten (10)** questions.
2. Answer **all** questions in section **A**, and **two (2)** questions from section **B**.
3. Section **A** carries **seventy (70)** marks and section **B** carries **thirty (30)** marks.
4. Cellular phones and any unauthorized materials are **not** allowed in the examination room.
5. Non-programmable calculators may be used.
6. Write your **Examination Number** on every page of your answer booklet (s).

SECTION A (70 marks)

Answer **all** questions in this section

1. (a) State three major roles played by gear box and one role played by clutch in the power transmission system of a tractor.
(b) (i) Identify two causes for sudden stopping and continuous running as a common fault in the ignition system of a tractor.
(ii) Suggest two measures that can be taken to correct each fault.
2. (a) Summarize five important precautions to be taken when using jack plane as a workshop tool used in carpentry work
(b) Account for five features of a good calf pen as a part of diary unit.
3. (a) Give a brief description of a spike-tooth harrow as a tillage implement.
(b) Point out three advantages and three disadvantages of trickle irrigation system.
4. (a) Briefly explain how acid soil management can be achieved.
(b) Briefly explain six points on the significance of knowing the reaction of the soil before growing any crop.
5. (a) Differentiate infiltration from percolation
(b) Explain how one can classify soil water based on
 - (i) The relative degree of retention giving five points
 - (ii) The extent of utility by plant giving three points.
6. Account on five agronomic practices that can be used by the farmer to ensure that the fertility of the soil is maintained.
7. (a) Justify the statement that “addition of organic matter to the soil improves soil characteristics” by giving five points.
(b) Compare sand and clay soils based on the physical characteristics that are affected by compactness of the soil.

SECTION B (30 Marks)

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

8. (a) Use the data given on the table showing the yield per hectare of beans (Y1) which was obtained with varying levels of application of urea fertilizer (X1) to calculate the level of fertilizer application at which profit was at maximum given that, the price paid by co-operative society for beans 30 was 700 shillings per kg and urea could be purchased at the commercial fertilizer manufacturing industry for 140,000 shillings per 50 kg bag and
- (b) Calculate the marginal product and average product at the point when profit was at maximum.

Kg of urea (X1)	Kg of beans (Y1)
0	800
50	1100
100	1350
150	1550
200	1700
250	1800

9. (a) Briefly explain three measures that the government of Tanzania should take to encourage farmers to continue with production of the crop with which its world market price has fallen in the last season
- (b) use cobweb theorem to explain the phenomenon that “producers of cowpea have reduced production of crops this season as a result of low market price for the crop in the last season”.
10. (a) Give five point on what would happened in the absence of international commodity agreements
- (b) Explain why do we plan in the farm by giving three points
- (c) Give two ways in which partial budget can be used as a tool of farm planning in the farm.