

Candidate's Examination No. ....

THE UNITED REPUBLIC OF TANZANIA  
MINISTRY OF EDUCATION AND VOCATIONAL TRAINING  
FORM TWO SECONDARY EDUCATION EXAMINATION, 2010

0034

AGRICULTURAL SCIENCE

TIME: 2 HOURS

INSTRUCTIONS

1. This paper consists of sections A and B.
2. Answer ALL questions.
3. Read the instructions given under each section carefully.
4. ALL answers must be written in the spaces provided for each question.
5. Write your examination number at the top right hand corner of every page.
6. ALL writing should be in black or blue ink.
7. Cellphones and calculators are not allowed in the examination room.

FOR EXAMINER'S USE ONLY		
QUESTION NUMBER	SCORE	INITIALS OF EXAMINER
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
TOTAL		

This paper consists of 8 printed pages.



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**SECTION A (30 MARKS)**

- I. The following statements are either correct or not correct. Write **TRUE** for a correct statement or **FALSE** for a statement that is not correct.
- (i) Agriculture is a science because it uses the background knowledge of natural science subjects. ....
  - (ii) Herbicides are sometimes known as insecticides. ....
  - (iii) In the battery cage system of poultry keeping, many birds are kept in one room. ....
  - (iv) Under given market conditions, the value of goods or services is called price. ....
  - (v) The First Aid kit enables us to observe the nature of the universe. ....
  - (vi) Clay soil have the lowest water holding capacity. ....
  - (vii) Forging in metal work is known as the process of joining two parts of metals together. ....
  - (viii) A nursery is a place where seedlings are sown, raised and cared for before transplanting them to the main field. ....
  - (ix) Socio-economic factors are among the factors which limit livestock development in Tanzania. ....
  - (x) Early planting of crops in the season is a mechanical method of controlling weeds. ....



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2. Match the items in set A with those in set B by writing the correct letter below the corresponding question numbers in the answer table provided.

SET A		SET B
(i)	A major factor of production	A. Capital
(ii)	A method of controlling cannibalism in poultry	B. Debeaking
(iii)	A succulent feedstuff	C. Dehorning
(iv)	Artificial fertilizer	D. Dry elephant grass
(v)	Checks the vertical straightness of walls in masonry works	E. Gestation period
(vi)	Growing of crops and keeping of animals at the same time	F. Guano
(vii)	Process of hitching implements to draught animals	G. Harnessing
(viii)	Returns or payment for land use	H. Heat period
(ix)	The distance between plants within the row	I. Inter-row spacing
(x)	The time when a female cow is ready to receive service from the bull ready for conception.	J. Intra-row spacing
		K. Land
		L. Mixed farming
		M. NPK
		N. Oxenization
		O. Plumb bob
		P. Rent
		Q. Sedentary farming
		R. Spirit level
		S. Young banana leaves
		T. Wage

**ANSWERS**

	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
SET A										
SET B										



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3. Write down the letter of the correct answer in the box provided for each question.

- (i) A system of poultry keeping which is most practised in the rural areas of Tanzania is:  
A. battery cage system  
B. deep litter system  
C. fold unit system  
D. free range system.
- (ii) The process of feeding highly nutritious feed to female farm animals before mating them is called:  
A. challenge feeding  
B. drying off  
C. flushing up  
D. steaming up.
- (iii) The recommended time for working animals (oxen) on the farm per day is:  
A. three hours  
B. four hours  
C. five hours  
D. six hours.
- (iv) The process of removing unwanted plants which cause annoyance to the owner is called:  
A. mulching  
B. pruning  
C. transplanting  
D. weeding.
- (v) The quantity of good or service that is bought at a particular price during a certain period is termed as:  
A. buffer stock  
B. demand  
C. equilibrium price  
D. supply.
- (vi) The most important factor which leads to the formation of a soil catena is:  
A. climate  
B. soil porosity  
C. soil structure  
D. topography.



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(vii) Which of the following tools is used to support a piece of metal in the process of forging?

- A. Anvil
- B. Brace
- C. Hammer
- D. Tong.

(viii) The major portion of soil by volume is:

- A. air
- B. mineral matter
- C. organic matter
- D. water.

(ix) The following are examples of beverages EXCEPT:

- A. cocoa
- B. coffee
- C. water
- D. tea.

(x) If the price of rice at the market decreases, its demand will:

- A. be substituted
- B. decrease
- C. increase
- D. remain the same.

### SECTION B (70 MARKS)

4. (a) Define the term soil as used in Agriculture.

.....

.....

.....

.....

(b) Mention four factors that influence soil formation.

- (i) .....
- (ii) .....
- (iii) .....
- (iv) .....



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(c) List four organic manures which are used to enrich soils in Tanzania.

- (i) .....
- (ii) .....
- (iii) .....
- (iv) .....

5. (a) What is crop rotation?

.....  
.....  
.....  
.....

(b) Outline four principles of crop rotation.

- (i) .....
- (ii) .....
- (iii) .....
- (iv) .....

6. Explain the importance of keeping poultry in Tanzania. Give four points.

- (i) .....
- (ii) .....
- (iii) .....
- (iv) .....



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7. Mention a hand tool you will use to perform the following workshop operations:

- (i) Cutting along wood grains. ....
- (ii) Cutting metals. ....
- (iii) Smoothing rough surfaces of wood. ....
- (iv) Smoothing metals. ....
- (v) Loosening or tightening screws. ....
- (vi) Making curves on wood. ....
- (vii) Gripping or handling nuts when loosening or tightening. ....
- (viii) Drilling holes in metal or wood. ....
- (ix) Holding a workpiece when a strong grip is necessary and for cutting thin wires. ....
- (x) Making joints in wood. ....

8. Briefly explain four ways through which industrial development helps the development of agricultural sector.

- (i) .....
- (ii) .....
- (iii) .....
- (iv) .....



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9. Explain the following terms as used in Agricultural Science:

- (i) Castration .....
- (ii) Entrepreneur .....
- (iii) Oxenization .....
- (iv) Dual purpose chicken .....
- (v) Mutton .....
- (vi) Mohair .....
- (vii) Ornamental plants .....
- (viii) Arable farming .....
- (ix) Soil structure .....
- (x) Soil profile .....

10. (a) Write the common names of the following botanical names of crop plants:

- (i) *Lycopersicon esculentum* .....
- (ii) *Zea mays* .....
- (iii) *Ananas comosus* .....
- (iv) *Daucus carota* .....

(b) List down six characteristics of a subsistence farmer.

- (i) .....
- (ii) .....
- (iii) .....
- (iv) .....
- (v) .....
- (vi) .....