

Candidate's Examination No.....

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF EDUCATION AND VOCATIONAL TRAINING
FORM TWO SECONDARY EDUCATION EXAMINATION, 2011

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.
5. Write your examination number at the top right 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)

1. The following statements are either correct or not correct. Write **TRUE** for the correct statement or **FALSE** for the statement that is not correct.
- (i) One of the advantages of Agricultural Science is that it does not need a laboratory for conducting experiments.
 - (ii) Herbicides are chemicals which are toxic to weeds.
 - (iii) Hybrid poultry birds which are bred purposely for meat production are called broilers.
 - (iv) The possession of rights to the use of land under specified conditions is called land reform.
 - (v) Once an accident occurs on the farm, the victims have to be given immediate medical assistance known as First Aid.
 - (vi) Soil pH, soil texture, soil density, soil profile and soil colloids are physical properties of soils.
 - (vii) Good house keeping is not a necessary safety precaution in a farm workshop.
 - (viii) The major challenge facing horticultural producers and transporters is the perishability nature of the horticultural products.
 - (ix) Free range poultry keeping system is good for poultry keepers living in highly populated cities and towns.
 - (x) The possibility of getting no harvests from your farm in a given farming season can be controlled through crop diversification.

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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 number in the table provided.

SET A	SET B
(i) Action of looking after chicks ^h	A. <u>Amaranthus hybridus</u>
(ii) A farming system where only crops are produced ^c	B. Animals are freely available
(iii) An advantage of animal power over tractor power ^p	C. Arable farming
(iv) A method of regulating temperature in gardens ⁿ	D. Capital
(v) A ruminant farm animal ^H	E. Cat
(vi) A scientific name for local spinach ^A	F. Chick feeding
(vii) Conditions for successful oxenization ^j	G. Chick rearing
(viii) Human efforts used in the production process ^L	H. Cow
(ix) Removing unproductive animals in a herd ^J	I. Culling
(x) Returns for land use ^q	J. Flat lands with light soils
	K. Hard soils with sloppy lands
	L. Labour
	M. Monocropping
	N. Mulching
	O. Profit
	P. Rent
	Q. <u>Solanum melongena</u>
	R. Uses simple technology
	S. Weeding
	T. Yoke harness

ANSWERS

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

3. Write the letter of the correct answer in the box provided.

- (i) The recommended time to transplant tomato seedlings is:

- A. at night
 B. in the evening
 C. mid- day
 D. in the morning.

- (ii) The action of growing a different type of crop on the same piece of land in successive seasons is known as:

- A. crop rotation
 B. relay cropping
 C. sedentary farming
 D. shifting cultivation.

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- (iii) The best soils for gardening are those with:
- A. high bulk densities
 - B. high pH scales
 - C. high water holding capacities
 - D. low bulk densities.
- ☐
- (iv) In Farming Business Economics, capital which can easily be converted into money is called:
- A. cash in bank
 - B. fixed capital
 - C. personal capital
 - D. working capital.
- ☐
- (v) In a country with mixed economy, the prices of goods and services are controlled by:
- A. government regulations
 - B. people's purchasing power
 - C. supply and demand
 - D. supply, demand and government regulations.
- ☐
- (vi) The period during which a certain farm animal was pregnant was found to be three months, three weeks and three days. What type of animal was that?
- A. Bitch
 - B. Doe
 - C. Ewe
 - D. Sow.
- ☐
- (vii) The two main divisions of chicken breeds which are kept in Tanzania are:
- A. heavy breads and exotic breeds
 - B. indigenous and exotic breeds
 - C. pure breeds and exotic breeds
 - D. pure breeds and heavy breeds.
- ☐
- (viii) Which of the following tools is not a carpentry tool?
- A. Claw hammer
 - B. Hacksaw
 - C. Mallet
 - D. Sickle.
- ☐
- (ix) Rough surfaces of wood can be smoothened by using one of the following tools:
- A. cold chisel
 - B. file
 - C. plane
 - D. try - square.
- ☐

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- (x) All of the following are sources of farm power except:
- A. ox-plough
 - B. solar
 - C. water
 - D. wind.



SECTION B (70 MARKS)

4. Fill in the gaps in the text below with terms from the box provided.

grafting, floriculture, a nursery, a garden, orchard, vegetative propagation, hortus, culture, ipomea, batatas, vegetables, generative propagation.

Horticulture is a term derived from two Latin words namely (i)..... and (ii)..... A horticultural unit where vegetable crops only are grown is (iii)..... Horticultural crops are propagated through (iv) and (v)..... The art and science of growing flowers is (vi) while olericulture is the art and science of growing (vii) The action where a scion is connected to a root stock to form a new plant is called (viii) A small area within the horticultural unit where seeds are sown and cared referred to as (ix) A horticultural unit where fruit crops are grown is called (x)

5. Which poultry keeping system will you use under each of the following farm situations?

- (i) If you have a lot of capital. intensive system
- (ii) If you have much less capital. free range system
- (iii) If you want to keep dual purpose chicken. deep litter system
- (iv) If the area where you live has many predators and alligators. solid unit system
- (v) If you want to keep thousands of poultry birds. deep litter system

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6. Briefly explain the economic importance of livestock in Tanzania. Use the following sub-headings:

- (i) Source of food to man.....
.....
.....
- (ii) Source of farm power
.....
- (iii) Provision of employment for many people
.....
- (iv) Provision of industrial raw materials
.....
- (v) Social uses
.....

7. Without using mechanical, biological or chemical methods of weed control, explain five other ways which can be used to control weeds in the farm.

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

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- (iv)
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.....
.....
- (v)
.....
.....
.....

8. Write common names for each of the following weeds:

- (i) Cyperus rotundus
- (ii) Bidens pilosa
- (iii) Imperata cylindrica.....
- (iv) Digitaria scalarum
- (v) Cynodon dactylon

9. Outline the function of each of the following pipe fittings as used in plumbing:

- (i) Coupling
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.....
- (ii) Elbows
.....
.....
- (iii) Tees
.....
.....
- (iv) Nipples
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.....
- (v) Pipe valves
.....
.....

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10. State five factors that may cause a change in demand for goat meat at Mailimbili market in Dodoma.

(i)

(ii)

(iii)

(iv)

(v)