

Candidate's Examination Number.....

**THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL
FORM TWO SECONDARY EDUCATION EXAMINATION**

0034

AGRICULTURAL SCIENCE

Time: 2 Hours

Monday, 01st December 2014 p.m.

Instructions

1. This paper consists of **ten (10)** questions in sections A and B.
2. Answer **all** questions.
3. **All** answers must be written in the spaces provided.
4. **All** communication devices are **not** allowed in the examination room.
5. **All** writing must be in black or blue ink.
6. Write your **Examination Number** at the top right corner of every page.

FOR EXAMINERS' USE ONLY

QUESTION NUMBER	SCORE	EXAMINERS' INITIALS
1		
2		
3		
4		
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8		
9		
10		
TOTAL		

SECTION A (30 Marks)

1. For each of the item (i) – (x), choose the correct answer from among the given alternatives and write its letter in the box provided.

(i) Cutting, threading and fitting of pipes is known as

- A soldering
- B plumbing
- C forging
- D welding.

(ii) All of the following are draught animals except

- A Oxen
- B Donkey
- C Camel
- D Giraffe.

(iii) Which one of the following is a forest crop grown in Tanzania?

- A Tea
- B Pyrethrum
- C Timber
- D Cocoa.

(iv) The joining of a small piece of shoot to a shoot containing root system with good characteristics is referred to as

- A grafting
- B layering
- C budding
- D cutting.

(v) Which compartment in a ruminant stomach is considered to be a true stomach?

- A Rumen.
- B Reticulum.
- C Abomasum.
- D Omasum.

(vi) The feed nutrient essential as structural constituents of the animal body are

- A Carbohydrates.
- B Proteins.
- C Vitamins.
- D Mineral salts.

(vii) One of the factors that cause change in demand of an agricultural good is

- A Changes in income of consumers
- B Changes in the costs of production
- C Occurrence of pests and diseases
- D Changes in weather condition.

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(viii) The factor of production that enables effective utilization of other factors is

- A land
- B capital
- C entrepreneurship
- D labour.

(ix) Which one of the following is **not** true about soil?

- A It is the weathered part of the earth's crust.
- B It is the upper layer of the earth's crust.
- C Contains five percent water.
- D Contains plant and animal remains.

(x) Which one of the following soil properties is **not** influenced by the soil structure?

- A Aeration.
- B Water movement.
- C Colour.
- D Porosity.

2. Match the items in **List A** with those in **List B** by writing the letter of the correct answer below the corresponding item number in the table provided.

LIST A	LIST B
(i) Cereal crop <i>A</i>	A Lucerne
(ii) Oil crop <i>L</i>	B Pigeon pea
(iii) Beverage crop <i>G</i>	C Pawpaw
(iv) Legume crop <i>B</i>	D Sugarcane
(v) Root crop <i>O</i>	E Paddy
(vi) Fruit crop <i>C</i>	F Bourganvillia
(vii) Medicinal crop <i>T</i>	G Tea
(viii) Spice crop <i>M</i>	H Cypress
(ix) Forage crop <i>P</i>	I Pyrethrum
(x) Ornamental crop <i>F</i>	J Okra
	K Sunflower
	L Rubber
	M Ginger
	N Cabbage
	O Cassava

ANSWERS

LIST A	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
LIST B	<i>C</i>	<i>L</i>	<i>F</i>	<i>B</i>	<i>O</i>	<i>G</i>	<i>I</i>	<i>P</i>	<i>E</i>	

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3. For each of the following statements, write **TRUE** for a correct statement or **FALSE** for a statement that is not correct.
- (i) Agriculture can be regarded as a science as it involves application of human skills which can be manipulated.....*F*
 - (ii) In scientific investigation procedures, acceptance or rejection of the hypothesis is done in data analysis.....*F*
 - (iii) Tenon saw is used for cutting wood grains in many directions.....*T*
 - (iv) Intercropping is the growing of two or more crops on the same piece of land at random.....*F*
 - (v) The system of rearing poultry in which sawdust is spread on the floor of the house where birds are kept is known as deep litter system.....*T*
 - (vi) 'B horizons' in a soil profile are characterized by accumulation of materials.....*F*
 - (vii) Inelastic supply occurs when the quantity of goods supplied changes by a smaller percentage than the price.....*F*
 - (viii) Silage is a livestock fodder which is stored while it is still in a green moist state.....*T*
 - (ix) Herbicides are chemicals used to kill weeds.....*F*
 - (x) Soil structure is the relative proportions of soil particles of different diameters in the soil.....*T*

SECTION B (70 Marks)

4. (a) Give the name of the pipe fitting that is used for each of the following purposes in plumbing:
- (i) Branching off the main pipeline.....
 - (ii) Changing direction of run of a pipe.....
 - (iii) Connecting pipes in a straight line.....
 - (iv) Connecting two fittings.....
 - (v) Connecting two pieces of pipes where either one can be turned or where part of a system will have to be removed for repair or replacement.....
- (b) State the function of each of the following tools used in woodwork.
- (i) Cross-cut saw.....
.....

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(ii) Jack plane.....

(iii) Chisel.....

(iv) Hammer.....

(v) Brace.....

5. (a) Define the term 'crop pest'.....

(b) (i) Outline two advantages and four disadvantages of chemical method in controlling pests.
Advantages:

Disadvantages:

(ii) Give four suitable properties for the chemical to be used to control pests.

6. (a) Differentiate between natural and artificial brooding.

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- (b) Briefly explain four problems of the free range system in rearing poultry.

7. (a) Define the following terms:

(i) Nomadic pastoralism.....

(ii) Shifting cultivation.....

- (b) Outline six disadvantages of nomadic pastoralism.

8. (a) (i) What is a factor of production?

(ii) Briefly describe three characteristics of land as a factor of production..

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(b) (i) Who is an entrepreneur?

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9. (a) (i) Define the term 'soil profile'.

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(b) (i) Name the three solid particles of the soil.

Sandy soil
Loamy soil
Clay soil

(ii) State two functions of living organisms in the soil.

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10. (a) Briefly explain the function of each of the following garden tools.

(i) Wheelbarrow.....

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(ii) Sprinkler.....

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(iii) Hose pipe.....

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(iv) Garden shear.....

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(v) Secateur.....

(b) Name the garden tool responsible for each of the following function.

- (i) Watering seedlings in nursery beds and transplanted seedlings.....
- (ii) Preparing planting furrows and holes.....
- (iii) Removing underground perennial weeds.....
- (iv) Collecting together uprooted plant roots and stems.....
- (v) Clearing the land of small trees and shrubs before cultivation.....