

Candidate's Examination Number

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

034

AGRICULTURAL SCIENCE

Time: 2 Hours

Monday, 23rd November 2015 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		
5		
6		
7		
8		
9		
10		
TOTAL		

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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) All of the following are chemical weathering processes **except**

- A hydrolysis
- ☒ B expansion and contraction
- C acidification
- D oxidation and reduction reactions.

(ii) One of the following groups of crops belongs to spice crops.

- A oranges and mangoes
- ☒ B ginger and cloves
- C beans and cow pea
- D wheat and barley.

(iii) Which one of the following is a social problem facing farmers in Tanzania?

- ☒ A Traditionalism.
- B Scarcity of inputs.
- C Poor marketing facilities.
- D Seasonal rainfall.

(iv) Which one of the following is **not** a feature of a good farm workshop?

- A It should contain basic tools.
- B It should be orderly and systematic.
- ☒ C It should be expensive with modern equipment.
- D It should have ample room for working.

(v) The price of a good is determined by

- A producers' will
- B method of production used
- C consumer income
- ☒ D inflation.

(vi) New castle disease in poultry can be identified by

- A swollen wattles and combs
- B nasal discharge and swelling of the face
- C blood stained faeces
- ☒ D birds walk backwards hiding their heads with neck twisted.

(vii) All of the following are physical procedures of processing agricultural produce **except**

- ☒ A salting
- B extraction
- C evaporation of water
- D grading.

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(viii) The instrument which is used for driving in and removing nails in woodwork is known as

- A ball-pein hammer
- ☒ B claw hammer
- C cross-pein hammer
- D metal hammer.

(ix) Soil structure is determined by

- A colour of the soil
- B size of the soil particles
- ☒ C shape of the soil particles
- D particle density of the soil.

(x) Quick and immediate attention that one receives after an accident in agricultural laboratory before taken to hospital is known as

- A treatment
- B preventive measure
- ☒ C first aid
- D safety precaution.

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)	Cuts wood grains in any direction	A Mallet
(ii)	Make grooves on wood.	B Rasp
(iii)	Smoothen surfaces in wood.	C Marking gauge
(iv)	Fastens together small pieces of timber.	D Brace and bit
(v)	Drives in wood chisel.	E Hack saw
(vi)	Drive nails into wood and remove nails from wood	F Ball-pein hammer
(vii)	Drill holes in wood.	G Tenon saw
(viii)	Indicates the parallel lines along the edge of wood for cutting.	H Jack plane
(ix)	Drive screws in and out of wood surfaces.	I Try square
(x)	Smoothens round surfaces of wood.	J Anvil
		K Scrapper
		L G clamp
		M Wood chisel
		N Claw hammer
		O Screw driver

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ANSWERS

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

3. For each of the following statements, write **TRUE** for a correct statement or **FALSE** for a statement that is not correct.

- (i) The non-solid spaces in the soil are called pore spaces.....
- (ii) The first step in agricultural investigation procedure is problem identification.....
- (iii) Agricultural economics is the study of the economy as a whole.....
- (iv) In welding, metal parts are joined by means of a fusible alloy.....
- (v) Building suitable housing for livestock is one of the general principles of livestock production.....
- (vi) Weeds have both beneficial and harmful effects to crop plants.....
- (vii) Capital is a factor of production which results from accumulation of assets.....
- (viii) Concentrates are indigestible feeds with high nutritive value.....
- (ix) One of the objectives of processing agricultural products is to make their handling easier.....
- (x) Soil formation is the evolution of the soil from the consolidated bedrock.....

SECTION B (70 Marks)

4. (a) (i) Define the term 'agriculture'.

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(ii) Why is agriculture considered to be a science?

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(b) Outline six roles of agriculture in the economy of Tanzania.

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5. (a) What is the importance of safety precautions in the farm workshop?

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(b) State three safety precautions in each of the following areas:

(i) House keeping.

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(ii) Personal protection against injury.

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(iii) Protection against fire hazards.

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6. (a) (i) What is meant by horticulture?

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(ii) Give the importance of horticultural products in the diet of human beings.

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(b) Briefly explain six cultural practices to be observed when growing vegetables in the garden.

*Benjamin
Oyang*

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7. (a) Define the following terms:

(i) Ration

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(ii) Balanced ration

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(iii) Production ration

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(iv) Maintenance ration

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(b) (i) Differentiate between hay and silage.

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(ii) Outline four steps in making hay.

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(iii) Briefly explain the importance of conserving fodder.

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8. (a) Give the meaning of the following:

(i) Price

(ii) Supply

(iii) Demand

(b) (i) Briefly explain how taxation determines price of an agricultural good.

(ii) Name five factors affecting the demand of an agricultural good.

9. (a) (i) What is soil?

(ii) Show the distribution of soil components by volume.

(b) State five factors that influence soil formation.

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10. (a) Differentiate the following:

(i) Interplanting and monocropping.

(ii) Mixed cropping and intercropping.

(b) (i) What is meant by crop rotation?

(ii) Enumerate five advantages of crop rotation.