THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL

010 **QUALIFYING TEST**

(For Private Candidates Only)

Time: 3 Hours **Tuesday, 08th November 2016 p.m.**

Instructions

1. This paper consists of sections A and B.

2. Section A consists of **two (2)** parts and section B consists of **three (3)** parts.

3. Answer **all** questions in section A and choose only **one (1)** part in section B and answer **all** questions in that part.

4. All questions should be answered in English Language except Kiswahili subject in section A part II should be answered in Kiswahili.

5. Calculators and Cellular phones are **not** allowed in the examination room.

6. Write your **Examination Number** on every page of your answer booklet(s).

SECTION A

PART I: CIVICS AND CURRENT AFFAIRS (20 Marks)

Answer **all** questions.

1. For each of the items (i) - (v), choose the correct answer from among the given alternatives and write its letter beside the item number in the answer booklet provided.

   (i) The Judiciary in Tanzania is headed by
   A the Speaker B the Attorney General C Chief Justice
   D President of Judiciary E the Resident Magistrate.

   (ii) Which of the following categories are **not** aspects of social skills?
   A Negotiation, empathy and peace.
   B Negotiation, empathy and friendship.
   C Good relationship and peer resistance.
   D Empathy, peer pressure and effective communication.
   E Negotiation, effective communication and peer resistance.

   (iii) What is the term used to describe habits that show high moral standard?
   A Self-discipline. B Generosity. C Honesty.
   D Proper behaviour. E Obedience.

   (vi) The Universal Declaration for Human Rights was adopted in
   A 1948 B 1945 C 1947 D 1937 E 1944.

   (v) Negotiation, peer resistance, empathy and effective communication are known as
   A individual life skills B problem solving skills
   C social life skills D decision making skills
   E communication skills.

2. Match items in **List A** with the letter of the correct response in **List B** beside the item number in the answer booklet provided.

List A	List B
(i) Any marriage of a person below the legal age of maturity.	A Polyandry
(ii) The time when two people have a relationship before they get married.	B Polygamy
(iii) The custom of having more than one wife at the same time.	C Intermarriage
(iv) The custom of having more than one husband at the same time.	D Monogamy
(v) A gift given to the bride parents by the prospective husband.	E Courtship
	F Dowry
	G Premature marriage

3. Complete the following sentences by writing the correct word or words in the answer booklet provided.

   (i) Types of human rights which are named and defined in the instrument of law are known as _____.

   (ii) A branch of a government responsible for daily administrative activities in a country is _____.

   (iii) The type of democracy practiced in the United Republic of Tanzania is known as _____.

   (iv) The head of District Council is known as _____.

   (v) A group of citizens legally organized together so as to take control of the government is called _____.

4. Briefly explain five responsibilities of the community to the orphans.

PART II: KISWAHILI AND ENGLISH LANGUAGE (40 Marks)

KISWAHILI (Alama 20)

Jibu maswali **yote**.

UFAHAMU

5. Soma kwa makini kifungu cha habari kifuatacho kisha jibu maswali yanayofuata:

   Kitu ambacho Afrika inahitaji sana wakati huu ni amani, uhuru na nafasi ambazo hazipingi kujipatia maisha yaliyo bora. Mamilioni ya watu katika bara hili kubwa hawataki tena kusikia njaa kila siku au kuishi katika vibanda vidogo vya udongo. Wanatafuta njia ya kufanya maisha yao yawe bora zaidi. Hawataki kuingizwa katika vita vya ulimwengu na kupoteza kile kidogo walicho nacho. Tanzania ni nchi maarufu katika bara hili kubwa la Afrika. Matatizo yote ya Afrika ambayo yanahusu kuondoa taabu, umaskini na kujenga maisha bora na ujamaa wa watu yanatuhusu pia.

   Sisi katika nchi hii tunayo hakika ya maendeleo ya haraka ikiwa kila mmoja kwa nafasi yake atatimiza wajibu wake. Kwa sababu tuna rasilimali nyingi. Kwanza tuna watu ambao wana shauku ya maendeleo, wanapenda urafiki na wenye kutii sheria. Vilevile tuna wanyama pori wengi ambao wanaweza kulinganishwa na walie wanaopatikana katika sehemu chache sana za dunia. Rasilimali zote hizi lazima zitunzwe na zitumiwe kwa faida yetu sote. Hata hivyo jambo kubwa kuliko yote ambalo jamii inapaswa kuzingatia ni kwamba lazima tutunze mambo yote ya kindugu na ya kijamaa ambayo baba zetu walikuwa nayo na wakatuachia kama urithi wetu.

   Kazi yetu ni kuyakuza mambo haya yote, yaani kujenga nchi ambayo wote tunaweza kuishi kama ndugu na ujamaa wetu wa kiafrika.

Kazi zinazotukabili ni kubwa na nyingi. Tunapozichunguza zaidi tunaweza kujiuliza kama mtoto wa tandu, “Nianze namna gani nisogeze mguu upi kwanza”. Na jibu ni lile lile alilopewa, ‘Sogeza mtoto sogea’. Kwa hiyo, hakuna hata mmoja kati yetu anayeweza kumaliza matatizo yote tuliyo nayo peke yake, ila tukishirikiana na kila mmoja wetu akifanya yake kwa uaminifu, ndipo maendeleo ya kweli yatakavyoweza kupatikana. Hivyo tunapaswa kujituma na kufanya kazi kwa bidii kwani ipo kazi na wajibu kwa kila mmoja wetu.

Maswali

(a) Taja matatizo matatu ambayo mwandishi ameyazungumzia kwenye habari hii ambayo angependa watanzania waepukane nayo.
(b) Mwandishi anasema maendeleo ya haraka yanaweza kupatikana kwa njia gani?
(c) Mwandishi ametoa fundisho gani kwa kutumia mfano wa mtoto wa tandu?
(d) Taja rasilimali ambazo Tanzania inazo na ni muhimu kwa maendeleo yake.
(e) Mwandishi ametaja mambo matatu muhimu kwa waafrika wa wakati huu. Mambo hayo ni yapi?
(f) Kichwa cha habari kinachofaa kwa habari uliyosoma ni kipi?

6. Bainsha mizizi ya maneno sita (6) yafuatayo:-
   (a) Tumekatwa
   (b) Hawatamtupa
   (c) Lililoamriwa
   (d) Kiunganishi
   (e) Malimbikizo
   (f) Tunakula

7. Tegua vitendawili vifuatavyo kisha eleza maana ya kila kimoja:
   (a) Chini chakula, katikati kuni, juu mboga.
   (b) Nikienda kwa mjomba sirudi.
   (c) Nina watoto wanne, mmoja akiondoka waliobaki hawafanyi kazi.
   (d) Popoo mbili zavuka mto.
   (e) Ukiona zigi utadhani zege na ukiona zege utadhani zigi.

8. (a) Eleza maana ya insha.
   (b) Jadili tofauti mbili za msingi zilizopo kati ya:
      (i) Insha za kisanaa na Insha zisizo za kisanaa.
      (ii) Insha za hoja na Insha za wasifu.

ENGLISH LANGUAGE (20 Marks)

Answer **all** questions.

9. Write a composition of about 100 words on title "Let's Keep Tanzania free from HIV and AIDS"

10. Read the following passage carefully and then answer the questions that follow.

Mount Mlinga is situated very near to our village. It is the highest mountain in the area. Its peak resembles a woman carrying a baby on her back. Everyone enjoys looking at the mountain especially when the sky is clear.

The peak of Mt Mlinga was once the home of spirits. These spirits controlled life in the village. It was believed that, when the spirits were angry, something bad happened. But when they were happy, something good happened.

In one year there was no rain for many months. Crops in the fields dried up. Many animals died because there was neither grass nor water for them. The soil became very dry. Bush fires spread everywhere. If a person threw a piece of cigarette carelessly, it would cause a big fire! So the village elders held a meeting. They selected a team of old men to go up the mountain and offer a sacrifice to the spirits. "The spirits must be very angry," they said.

Early one morning, the team dressed in black clothes up to their waists only with their chests bare, sang a traditional song and danced for a few minutes. Then, they left of the mountain. They took with them a black sheep, a cooking pot, some water, green bananas and fire.

Nobody knew exactly what happened at the mountain peak. After three days, it started raining heavily and the team came back from the mountain as wet as a frog. "The spirits are now happy;" they told everyone.

Questions

(i) Why was the peak of Mt. Mlinga liked by the villagers?

A Because was very far from the village.
B Because was full of snow.
C Because was the source of water.
D Because was always full of clouds.
E Because it looked like a mother with a baby on her back.

(ii) What can you say about the spirits that lived on Mt. Mlinga?

A Were always happy for the village.
B Liked the peak of the mountain.
C Used to play at the foot of the mountain.
D Were thought to be angry when there was no rain.
E Were very friendly to people in the village.

(iii) What did elders do in the village when there was no rain.
A They decided to offer a sacrifice to the spirits.
B They held a meeting for all the villagers.
C They selected a team of young women.
D They held a meeting for all the children in the village.
E They were very frightened by the spirits.

(iv) What was the effect of lack of rain in the village?
A Caused crops to grow and animals to die.
B Caused bushfires and crops and animals to die.
C Caused farms to catch fire always.
D Made men stop working because they were hungry.
E Caused villagers to dance in the mid night.

(v) What happened in the village after three days?
A The sacrifice team made prayers.
B Clouds gathered around the mountain.
C It started to rain in the village.
D The villagers were told that the spirits were hungry.
E The villagers were told to dance.

11. For each of the items (i) - (v), choose the correct answer from among the alternatives given and write its letter beside the item number in the answer booklet provided.

(i) Lake Tanganyika is far _____ the Indian Ocean.
A on B at C in D from E with.

(ii) I'm tired _____ arguing with you.
A for B of C from D at E about.

(iii) My mother asked me to _____ my torn shirt.
A sew B sow C saw D so E sewing.

(iv) This is the time of the year _____ the flowers appear.
A how B where C which D why E when

(v) There is too _____ sugar in this tea, I can't drink it.
A many B a lot C much D more E much more

12. Change the verbs in the brackets into the correct tense.

(i) Who has (break) _____ this glass?
(ii) Last month the cost of living (rise) _____ to a new high point.
(iii) Wood always (float) _____.
(iv) The patient (die) _____ by the time the doctor arrived?
(v) My uncle (walk) _____ in the park when I met him.

SECTION B

Choose only **one (01)** part and answer **all** questions in that part.

PART I: GEOGRAPHY AND HISTORY (40 Marks)

GEOGRAPHY (20 Marks)

Answer **all** questions.

13. For each of the items (i) - (x), choose the correct answer from the given alternatives and write its letter beside the item number in the answer booklet provided.

(i) If the scale of a map is 1:50,000, what will be the actual distance of a road with 4 cm on a map?
A 40 km. B 2 km. C 20 km. D 2 m. E 4 km.

(ii) Relief on a map can be shown by using
A contour line B isobars C latitude D isohyets E longitude.

(iii) An activity that involves movement of people to places of interest for leisure is known as
A transport B investigation C explore D migration E tourism.

(iv) In weather forecasting stations, the instrument used to measure the speed of wind is called
A barometer B hygrometer C thermometer D anemometer E windvane.

(v) Apart from the planets, other bodies moving around the sun are shown in one of the following sets of bodies:
A comets, asteroids, meteors and satellites
B meteorites, interplanetary dust and comets
C meteorites, asteroids and comets
D meteorites and comets
E inter-planetary gases and dust, comets and meteorites.

(vi) The system of growing different crops on the same field is known as
A intercropping B contour terracing C crop rotation
D mixed farming E farming.

(vii) Mining, fishing, agriculture and tourism may lead to the following effects **except**
A pollution B deforestation C afforestation
D soil erosion E loss of biodiversity.

(viii) Equal readings in dry bulb thermometer and wet-bulb thermometer means
A air is dry B temperature is high C air cannot take more water
D air is calm E it is spring season.

(ix) The natural satellite moving around the earth is known as
A clouds B meteorite C moon D star E columbus.

(x) Why the International Date Line deviates?
A In order to avoid ocean currents.
B In order to permit navigators to adjust their watches
C In order to group islands of the same political unit under the same calendar month.
D In order to ensure that no day is either gained or lost when navigators cross the line
E In order to interchange with greenwich meridian.

14. (a) Complete the following sentences by writing the correct answer in the answer booklet provided.

(i) Solar eclipse is also known as _____.

(ii) A place specifically made for observing, measuring and recording weather elements is known as _____.

(iii) In the absence of paper and pair of dividers, the only method used in measuring the length of features like rivers and roads on a map is _____.

(iv) The type of cultivation in which a peasant keeps on moving from one place to another is called _____.

(v) The main human activity in Tanzania is known as _____.

(b) Outline five characteristics of small scale agriculture.

HISTORY (20 Marks)

Answer **all** questions.

15. For each of the items (i) - (x), choose the correct answer from among the given alternatives and write its letter beside the item number in the answer booklet provided.

(i) Olorgesailie is a historical site found in
A Kenya B Uganda C Tanzania D Egypt E South Africa.

(ii) In East Africa the Late Stone Age started from around
A 750,000 BC B 50,000 BC C 75,000 BC
D 1,750,000 BC E 5,000 BC.

(iii) The theory of evolution was advocated by
A Dr. Leakey B Early man C Olduvai Gorge
D Charles Darwin E Skillful man.

(iv) The first Europeans to settle at the Cape of Good Hope were
A The British in 1806 B The Zulu in 1498 C The Dutch in 1652
D The Xhosa in 1498 E The Arabs in 1698.

(v) Which one of the following was an important salt making center in Africa?
A Axum and Meroe. B Axum and Uvinza. C Meroe and Uvinza.
D Taghaza and Uvinza. E Taghaza and Meroe.

(vi) After the decline of the Portuguese rule in 1698, the East African coast was under the control of
A The British traders. B The African themselves. C The Oman traders.
D The German traders. E The Hehe and Nyamwezi traders.

(vii) One among the following is the disadvantages of oral tradition:
A It is more live source of historical information.
B It is difficult in translation.
C It is not expensive.
D It involves literates only
E It is not easy to lose information.

(viii) One of the following was **not** a role of clan heads:
A to settle disputes among clan members.
B to teach their members to live complex life.
C to control the major means of production.
D to choose spouses for young men and girls.
E to protect clan ethics, norms and rituals.

(ix) Which among the following treaties was signed in 1822?
A Moresby Treaty. B Hamerton Treaty. C Freire Treaty.
D Helgoland Treaty. E Bandung Treaty.

(x) The German East African Company was founded by Karl Peters in
A 1887 B 1900 C 1886 D 1890 E 1884.

16. (a) Write the correct word(s) or figure which complete the following sentences in the answer booklet provided.

(i) _____ was a system of private land ownership operated in Karagwe and Buhaya.

(ii) The ceremony of passing out old leadership and passing in new leadership among the Nyakyusa was called _____.

(iii) The British South Africa Company was led by _____.

(iv) The areas with fertile land and high rainfall emerged to a strong political states are called _____.

(v) An economic activity dealing with keeping of animals as a main source of income is called _____.

(b) Explain five effects of the migration in the pre-colonial societies.

PART II: PHYSICS AND BASIC MATHEMATICS (40 Marks)

PHYSICS (20 Marks)

Answer **all** questions.

17. For each of the items (i) - (x), choose the correct answer among the given alternatives and write its letter beside the item number in the answer booklet provided.

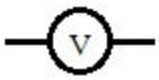
(i) The applied force which results in a decrease in size of the body is called
A stretching B compressional C friction D restoring E centripetal.

(ii) If the acceleration due to gravity g=10m/s^2. What is the work done of a man who lifts a load of 20kg through a height of 3m?
A 6J. B 60J. C 6000J D 0.06J. E 600J.

(iii) The elastic force constant of spring is obtained by the ratio of
A applied force to mass B mass to distance C tension to extension
D tension to mass E force to density.

(iv) The potential difference in the current is measure by

A 

B 

C 

D 
E 

(v) The equivalent capacitance for capacitors of 1 microFarad and 4 microFarad connected in series is
A 0.8μF B 8μF C 0.08μF D 80μF E 0.008μF.

(vi) A convex mirror always forms
A real images only B virtual images only
C inverted real images only D magnified virtual image
E diminished virtual image

(vii) An instrument which can detect electric charges is called
A ammeter B electroscope C ohmmeter D electrometer E generator.

(viii) Potential and kinetic energies are similar in that
A both produce heat B both are measured in watts
C one is the substitute of the other D both are forms of mechanical energy
E both are forms of electromagnetic energy.

(ix) The force exerted by a pressure of 40N/m^2 acting over an area of 5m^2 is
A 20N B 0.02N C 0.2N D 200N E 2.0N.

(x) Work done is the produce of force and
A speed B velocity C distance D acceleration E movement.

18. (a) (i) State Ohm's law.
(ii) Two resistors of 6Ω and 12Ω are connected in parallel. Calculate the total resistance of the circuit and the potential difference across the circuit when the current flowing through it is 5A.

(b) Name any two properties of magnetic lines of force.

(c) Differentiate transparent materials from translucent materials.

(d) List down any four types of capacitors.

(e) (i) Distinguish between kinetic energy and potential energy.
(ii) A 1000kg car is travelling down the road at a speed of 15m/s. Calculate the kinetic energy of the car.

BASIC MATHEMATICS (20 Marks)

Answer **all** questions.

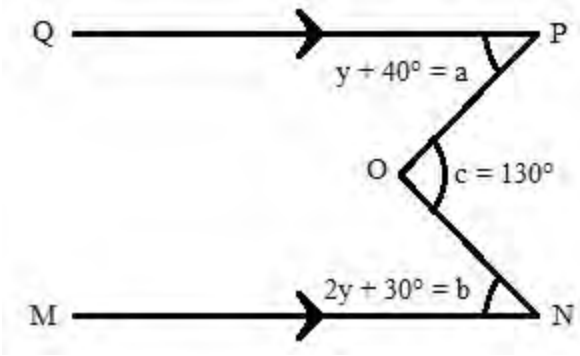
19. (a) Estimate the value of 35.175×23.05.

(b) Given the equation $-2x + y = 6$ for $-3 \leq x \leq 3$, construct a table of values and hence draw the corresponding graph.

(c) The sum of 3 consecutive numbers is 36. What are the numbers?

(d) Omega deposited sh. 1,000,000 in an NMB account. If the bank offers and interest rate of 9% per annum, find how long it will take for the balance in his account to be sh. 1,450,000.

(e) Find the value of y in the following figure:



20. (a) If $\frac{x+4}{3} = \frac{2x-2}{4} - 1$, find the value of x.

(b) A dealer paid sh. 960,000 for a machine. The following year he sold the machine for sh. 840,000. Calculate the:
(i) Loss made,
(ii) Percentage loss.

(c) Upendo is older than James by 8 years. If James is 14 years old, how old is Upendo?

(d) The area of a trapezium is $3000mm^2$ If the parallel sides are 300 mm and 100 mm long, find the height of the trapezium.

(e) Simplify $\frac{\sqrt{3}+\sqrt{2}}{\sqrt{5}+\sqrt{2}}$ by rationalizing the denominator.

PART III: BIOLOGY AND CHEMISTRY (40 Marks)

BIOLOGY (20 Marks)

Answer **all** questions.

21. (a) For each of the items (i) - (v), choose the correct answer from among the given alternatives and write its letter beside the item number in the answer booklet provided.

(i) Which one of the following distinctive features is used to identify members of the Division Bryophyta?

A Have small flowers. B Have vascular system.
C Have no true roots, leaves and stems. D Have no defined structures.

(ii) The products of anaerobic respiration in plants include

A carbon B lactic acid C carbon dioxide
D composite manure E alcohol.

(iii) The role of sunlight in photosynthesis is

A splitting down carbon dioxide B combine water molecules
C splitting water to its constituents D manufacturing starch
D participating in reactions.

(iv) Which statement is correct about epidemic disease?

A Spreads quickly and affects many people at a locality.
B Affects many people worldwide.
C Affects people living in towns only.
D Controlled only by proper use of toilets.
E Spreads very slowly and affects many people at locality.

(v) Which one of the following is the correct hierarchical order of Taxonomic groups?

A Kingdom, Phylum/Division, Class, Order, Family.
B Genus, Species, Order, Family, Class, Phylum/Division, Kingdom.
C Kingdom, Phylum/Division, Class, Order, Family, Genus, Species.
D Phylum, Kingdom, Order, Class, Family, Genus, Species.
E Kingdom, Phylum/Division, Class, Order, Family, Species, Genus.

(b) Complete the following sentences by writing the correct word or phrases in the answer booklet provided.

(i) A substance involved in blood clotting is called _____.

(ii) _____ is the structure which prevents backward flow of blood from the left ventricle to the left auricle in the heart.

(iii) A blood vessel which has small lumen is called _____.

(iv) _____ is the movement of molecules from an area of high concentration to low concentration through a semipermeable membrane..

(v) A structure which transports water and mineral salts from the roots to the leaves is known as _____.

22. (a) Match the items in **List A** with the correct response in **List B** by writing the letter of the correct response beside the item number in the answer booklet provided.

List A	List B
(i) A mechanical process whereby food substances are broken down into small particles to facilitate digestion.	A Duodenum
(ii) A part of the alimentary canal through which the food passes from the mouth to the stomach.	B Oesophagus
(iii) A structure found at the lower end of the stomach to enable the retention of food in the stomach for some time.	C Epiglottis
(iv) A small portion of the small intestine just after the stomach.	D Cardiac sphincter
(v) A process of breakdown of fat into tiny droplets.	E Chewing
	F Emulsification
	G Pyloric sphincter
	H Pancreas

(b) (i) What do you understand by the term "binomial nomenclature"?

(ii) Outline any four principles applied in assigning names to living organisms.

CHEMISTRY (20 Marks)

Answer **all** questions.

23. (a) For each of the items (i) - (v), choose the correct answer from among the given alternatives and write its letter beside the item number in the answer booklet provided.

(i) Which one of the following is the gas used to extinguish class E fires?
A Oxygen. B Carbon dioxide. C Nitrogen.
D Hydrogen. E Carbon monoxide.

(ii) The components in the air mixture can be separated by
A decantation B filtration C fractional distillation

D gas chromatology E vacuum chromatology.

(iii) In scientific procedures, the stage of comparing and representing information in diagram or table is known as
A problem analysis B conclusion C variable formation
D inference E data analysis.

(iv) Which of the following components make up the fire triangle?
A Oxygen, fuel and heat. B Oxygen, heat and firewood.
C Oxygen, fuel and firewood. D Match box, firewood and Oxygen.
E Match box, firewood and kerosene.

(v) One of the following is **not** among the gases composing air:
A hydrogen B oxygen C helium D nitrogen E noble gases.

(b) Fill in the blanks by writing the correct answer in the answer booklet provided.
(i) A substance which dissolves in a liquid is called _____.
(ii) A set of guidelines that a scientist follow in order to solve problems is called _____.
(iii) A mixture of several gases in the atmosphere is called _____.
(iv) 0.03%, 21% and 78% composition of air by volume represents _____, _____, and _____ respectively.
(v) Burns caused by hot liquids or vapour are called _____.

24. (a) Two liquids A and B are mixed together, but after thorough shaking and allowed to settle liquid B floats.
(i) What type of liquids does a mixture A and B form.
(ii) Which is the suitable apparatus that can be used to separate the two liquids?
(iii) Draw the diagram and indicate how the two liquids appear in the named apparatus.

(b) Match the items in **List A** with the correct response in **List B** by writing the letter of the correct response beside the item number in the answer booklet provided.

List A	List B
(i) A type of fire in which the burning materials are electrical equipments.	A Class B fire
(ii) A type of fire in which the burning materials are flammable liquids	B Class D fire
(iii) A type of fire in which the burning materials are metals.	C Class G fire
(iv) A type of fire in which the burning materials are wood and paper.	D Class H fire
(v) A type of fire in which the burning materials are liquefied gases.	E Class A fire
	F Class C fire
	G Class E fire