THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL

010 **QUALIFYING TEST**

(For Private Candidates Only)

Time: 3 Hours **Tuesday, 10th November 2015 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 following are the affairs of the Union of Tanganyika and Zanzibar **except**
   A primary education B statistics C meteorology D defence E research.

   (ii) The ability to solve daily life problems is known as
   A individual skills B assertiveness skills C life skills
   D intrapersonal skills E self awareness skills.

   (iii) Being involved in drug abuse is an indication of
   A ethical behaviour B improper behaviour C self esteem behaviour
   D self-assertiveness E self-confidence.

   (vi) What do you understand by the term polygamy?
   A A marriage of two husbands to one wife.
   B A marriage of many wives to one husband.
   C A marriage of many baby girls to many men.
   D A marriage of many wives to two husbands.
   E A marriage of two wives to one husband.

   (v) The series of political meetings designed to win voters for a certain candidate is called
   A the free and fair election B political meeting C political competence
   D political discussions E political campaigns.

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

List A	List B
(i) Membership to the state which is acquired through marriage Tanzanian.	A Citizenship by naturalization
(ii) A person who owes his/her allegiance to more than one country.	B Citizenship by descent
(iii) A person who is born to parents who are Tanzanian citizens.	C Refugees
(iv) People who run away from their country for fear of persecution.	D Citizenship by birth
(v) A membership to the state which is acquired because of being born outside Tanzania and one of the parent is a Tanzanian.	E Dual citizenship
	F Citizenship by marriage
	G Legal citizenship

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

   (i) _____ is the supreme power of the state to decide its internal affairs without external influence.

   (ii) Tanzania holds general election after every _____.

   (iii) The ability of a person to resist negative influence from others is called _____.

   (iv) The first President of Zanzibar was called _____.

   (v) In Tanzania the Speaker leads the parliament, the executive is headed by _____.

4. Point out five indicators of the violation of human rights in Tanzania.

PART II: KISWAHILI AND ENGLISH LANGUAGE (40 Marks)

KISWAHILI (Alama 20)

Jibu maswali **yote**.

UFAHAMU

5. Soma kwa makini shairi lifuatalo kisha jibu maswali yanayofuata.

   Majira pia Nipashe, taarifa nazitoa,
   Na redio niwabishe, kama ikiwafikia,
   Majirani ni wapashe, jambo nilokusudia,
   Ndege nimemfungua, wafugaji chukueni.

   Ndege nawaelezea, tabia yake **murua**,
   Kucheka yake tabia, kununa hakuzoea,
   Wageni wakiingia, fadhila huwatendea,
   Ndege nimemfungua, wafugaji chukueni.

   Tabia za **firauni**, hana ninawaapia,
   Na kuranda mitaani, si yake hiyo tabia,
   Marafiki wa kihuni, hapendi kuwasikia,
   Ndege nimemfungua, wafugaji chukueni.

   Ni miaka ishirini, mimi nilimfungia,
   Hakuleta **kisirani**, kwa balozi kuamua,
   Wala kugoma jikoni, ugali kunipikia,
   Ndege nimemfungua, wafugaji chukueni.

   Kisa niwaelezeni, tunduni nikamtoa,
   Msusa nambari wani, kisa si kisa alia,

Hilo kosa namba wani, huzuni limenitia,
Ndege nimemfungua, wafugaji chukueni.

Lingine lilochangia, tunduni nikamtoe,
Kosa sugu nadhania, sijui kama sawia,
Kufunga ndege Songea, sijui kama sawia,
Ndege nimemfungua, wafugaji chukueni.

Mara aliposikia, mwingine nimechukua,
Tundu akalibomoa, porini akakimbia,
Goti nikampigia, katu kanikatalia,
Ndege nimemfungua, wafugaji chukueni.

Hapa basi nasimama, hoja zimeniishia,
Chukueni hana dhima, ndimi nimemwambia,
Si haba tuliyochuma, rabi mola atajua,
Ndege nimemfungua, wafugaji chukueni.

Maswali

(a) Taja sababu moja iliyomfanya mtunzi amfungulie ndege.
(b) Taja tabia tatu ambazo ndege anayezungumziwa hakuwa nazo.
(c) Katika shairi hili ndege anawakilisha nini?
(d) Eleza maana ya maneno yaliyokolezwa wino ambayo ni haya yafuatayo:
    (i) Murua
    (ii) Firauni
    (iii) Kisirani
(e) Katika ubeti wa saba ndege alifanya nini baada ya kusikia mwingine kachukuliwa?
(f) Kichwa kipi kinafaa kwa shairi ulilosoma?

6. Fafanua maana ya dhana zifuatazo kisha tunga sentensi moja kwa kila dhana.
    (a) Mofimu huru.
    (b) Movimu tegemezi.

7. Eleza maana za shairi na ngonjera za kimapokeo kisha andika tofauti zake tatu (3).

8. Andika insha isiyopungua maneno mia moja (100) na isiyozidi maneno mia moja hamsini (150 juu ya “Utoro wa wanafunzi shuleni”.

ENGLISH LANGUAGE (20 Marks)

Answer **all** questions.

9. Write a composition of not less than 100 words about your school.

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

Juma’s parents have a big farm behind their home. They grow a lot of maize. Juma likes helping his parents with the farm work especially during his school holidays. At harvest time, there is always a

lot of work to do. Normally, Juma and his parents leave for farm very early in the morning at six o'clock. They carry baskets, empty bags, pangas, ropes and a pot of drinking water which is carried by Juma's mother. She puts the pot of water under the tree shade for it to cool.

Hadija is Juma's elder sister. She is a very strong girl and very responsible. She does not go to the farm to help with the harvesting, instead she remains at home to look after her younger brother and sister besides cooking for the family. In the afternoon, Hadija takes lunch to the farm because Juma and her parents become too busy to go back home for lunch.

Harvesting maize is a hard work. First, Juma and his father cut maize stalks with *pangas*. Then Juma's mother collects them and removes the covering of the maize cobs before putting into the bags. Then, the father carries the heavy bags, put them in a wheelbarrow and take the maize home. The maize cobs are spread to dry then put in large stores locked with padlocks.

This year Juma's parents have harvested a lot of maize. They are very happy because they will feed the family until the next harvest. They will also sell some of the maize in order to get money for school fees and buy other things for the family.

Questions

(i) Who has a big farm?
A Villagers. B Juma. C Hadija. D Young brother. E Juma's parents.

(ii) When do Juma and his parents go to the farm?
A In the morning at six o'clock.
B In the afternoon at one o'clock.
C In the morning at three o'clock.
D In the morning at five o'clock.
E In the afternoon at two o'clock.

(iii) Who stays home with her young sister and brother?
A Juma's mother. B Hadija. C Juma's father. D Juma. E Young children.

(iv) Which are the two items carried when they are going to the farm?
A baskets, plate B empty bags, spoons C pangas, clothes
D ropes, books E ropes, a pot of drinking water.

(v) What does Juma's father use to carry maize bags?
A A tractor. B A lorry. C A wheelbarrow D A min bus. E A horse.

11. 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) He promised to pick me _____ at the corner of the road.
A on B up C in D over E for.

(ii) He was knocked _____ as he was crossing the road.
A into B to C down D on E for.

(iii) My friend was disqualified _____ the examination.
A from B for C by D against E under.

(iv) Have you found the solution _____ the problem?
A in B from C with D to E by.

(v) She has been absent _____ school for over a week.
A of B off C out of D on E from.

12. Fill in the blanks with the correct form of the verb and write the answer in the answer booklet provided.

(i) Will you please _____ (give) him this book?

(ii) Our class teacher _____ (work) hard for many years before she was promoted.

(iii) If they play well, they _____ (win) the match.

(iv) The food _____ (lies) in the cupboard at the moment.

(v) Hon. Minister for Education _____ (come) from Pwani region.

SECTION B

Choose only **one (1)** 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 among the given alternatives and write its letter beside the item number in the answer booklet provided.

(i) The sum of all things that people do are known as
A social services B community activities C village activities
D human activities E government activities.

(ii) One of the negative effect of manufacturing industries is
A provision of employment B environment pollution
C absence of social services D development of trade activities
E availability of goods.

(iii) Which of the following is the smallest scale?
A 1:100,000. B 1:10,000. C 1:50,000. D 1:1,000,000. E 1:25,000.

(iv) In the Northern hemisphere winter is experienced on
A May, June and July B November, December and January
C August, September and October D February, March and April
E March, April and May.

(v) The seasonal migration of farmers to the mountains and to the valleys is called
A agriculture B pastoralism C transhumance
D hunting E shifting cultivation.

(vi) The time at town A located along the Greenwich Meridian is 1:00 pm, what will be the time at town B located at 30° E?
A 9:00 pm. B 2:00 pm. C 3:00 am. D 9:00 am. E 3:00 pm.

(vii) The compass bearing of NNE is
A 22.5° B 45° C 37.5° D 337.5° E 157.5°.

(viii) The correct numbers representing Eastings and Northings in grid reference 361585 are
A 585 and 361 B 361 and 585 C 36 and 58 D 58 and 36 E 36.5 and 58.5.

(ix) If the minimum temperature recorded in Mbeya in a day is 9°C and the maximum temperature is 18°C, the daily range of temperature will be
A 9°C B 27°C C 8°C D 10°C E 13.5°C

(x) Which of the following is **not** the characteristics of equatorial climate?
A there is no definite dry season.
B there is convectional type of rainfall.
C thunderstorms are common.
D precipitation is in form of snow in winter.
E relative humidity is very high throughout the year.

14. (a) Complete the following sentences by writing the correct answer in the answer booklet provided.
(i) The instrument that measures the speed of wind is called _____.
(ii) The ratio between the distance on the map and the actual distance on the ground is called _____.
(iii) The latitude that the sun goes around without setting is _____.
(iv) The weight of water vapour contained in a unit volume of air measured in g/m^3 is called _____.
(v) The maps which show distributions of phenomena such as rainfall, temperature, air pressure and population are called _____.

(b) Outline five uses of water.

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) The theory of evolution explains the origin and development of mankind started from
- A Lower forms of animal life into savage
- B The primitive savage to the more highly civilized being
- C Modern Apes, Homo sapiens, Chimpanzee
- D Chimpanzee, Zinjanthropus, Homo habilis and Homo Erectus
- E Lower forms of animal life into the savage to the more highly civilized.

(ii) The scientific study of the remains of past human culture is known as
- A Archives
- B Archaeology
- C Museums
- D Oral tradition
- E Historical sites.

(iii) One of the achievements man made during the Late Stone Age was
- A discovering of fire and ability to roast meat
- B living in permanent settlement
- C living in the dense forest areas
- D moving upright
- E possessing a brain of about 450 to 550 cm^3.

(iv) Mwinyi Mkuu ruled Zanzibar with the help of
- A Bahima and Obusulu
- B Bakopi and Akasavu
- C Sazas and Diwani
- D Diwani and Sheha
- E Waungwana and Umwinyi.

(v) By the 1st century the Greek sailor wrote the book called the
- A periplus sea
- B periplus of the Erythraean sea
- C periplus of the Arythrone sea
- D erythrone sea
- E earlier Commerce contacts.

(vi) The traders who became rich as the result of Long distance trade in East Africa included
- A Mirambo, Asante, Mkwawa
- B Musiri, Ngonya, Mwakilonga
- C Kamba, Samba, Yao
- D Chisha, Nchemba, Ntumbale
- E Mirambo, Msiri, Kamba.

(vii) The first exploitative mode of production was
- A Capitalism
- B Colonialism
- C Feudalism
- D Communalism
- E Slavery.

(viii) Which one among the given sets are pastoral societies?
- A Yao and Zaramo.
- B Yao and Nandi.
- C Nandi and Zaramo.
- D Ndebele and Nandi.
- E Maasai and Yao.

(ix) Which one of the following was **not** the economic reason for abolition of slave trade?
- A Industrial revolution.
- B French and British competition.
- C Capitalist production.
- D Humanitarian movements.
- E Unprofitability of slaves.

(x) The chief Minister of Buganda kingdom was called
A Omuwanika B Katikiro C Omulamuzi D Omukama E Kabaka.

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

(i) In the 1487, _____ a Portuguese explorer reached the Southern tip of Africa and called it the Cape of Good Hope.

(ii) A famous British trader in East Africa who ran shipping line between Britain and Zanzibar in 1872 is known as _____.

(iii) The feudal system along the coast was referred to as _____.

(iv) _____ was the first animal to be domesticated.

(v) The Triangular slave trade was conducted between West Africa, _____ and Europe.

(b) Briefly explain five factors that stimulated industrialization in Europe.

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 from among the given alternatives and write its letter beside the item number in the answer booklet provided.

(i) Which of the following instruments is used to measure the diameter of a piece of wire?
A Engineer's caliper. B Vernier caliper. C Micrometer screw gauge.
D Tape measure. E Metre rule.

(ii) The ratio of the density of the substance to the density of water is called
A Density B Density bottle C Relative density bottle
D Relative density E Actual density.

(iii) A potential difference of 12V is applied across a resistor of resistance 240Ω. The current in the circuit in the circuit is
A 5A B 0.005A C 50A D 0.5A E 0.005A.

(iv) The process of adding magnetism to a given material is known as
A Demagnetization B Magnetization C Ferromagnetism
D Para magnetism E Diamagnetism.

(v) An ammeter is an instrument for measuring
A Resistance B Capacitance C Voltage D Current E Potential difference.

(vi) Which of the following is **not** a property of magnetic lines of force due to a bar magnet?
A They have a direction from North to South Pole inside the magnet.
B They do not exist inside the magnet.
C They have a direction from South Pole to North Pole inside the magnet.
D They tend to be close inside but wider apart outside the magnet.
E They form complete loops.

(vii) Two characteristics of the image formed by a plane mirror are
A laterally inverted and virtual
B magnified and laterally inverted
C virtual and smaller than the object
D real and same size as the object
E larger and at the same distance behind the mirror.

(viii) The state at which the algebraic sum of the moment of a body about any point is zero is called
A conservation of momentum B inertia C equilibrium
D conservation of energy E position.

(ix) The S.I. unit of power is
A joule B horse power C joule second D watt E coulomb second.

(x) A floating body experiences an upthrust which is equal in magnitude to the
A weight of fluid displaced
B weight of fluid which the body floats
C volume of fluid displaced
D density of the fluid displaced
E weight of body when filled with the displaced fluid.

18. (a) State any two forms of energy.

(b) (i) State the fundamental law of electrostatics.
(ii) A 2000μF capacitor has been charged to a potential difference of 40V. Calculate the charge on the plate of the capacitor.

(c) State any two factors that affect the resistance of a conductor.

(d) (i) Define the angle of incidence.
(ii) If the angle of reflection is 20°, find the angle between the incident ray and the reflected ray.

(e) Explain what happens when two magnets of the same poles are brought near to each other?

BASIC MATHEMATICS (20 Marks)

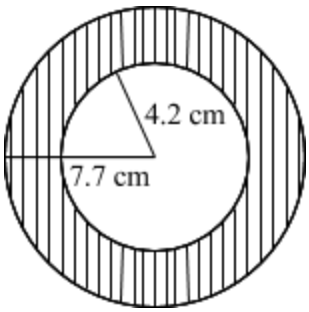
Answer **all** questions.

19. (a) A bag of maize weighs 2½ kilograms. What is the weight of 18 such bags?

(b) Divide 120 in the ratio of 7.5.

(c) Find the x and y intercepts of $y = -5x + 2$ and $y = -5x + 9$, hence draw the graphs of these equations on the same axes and comment on them.

(d) The following figure shows two concentric circles which have the radius of 7.7 cm and 4.2 cm. Calculate the shaded area. (Use $\pi = 22/7$).



(e) The sides of a triangle are 5 cm, 6 cm and 7 cm. Find the perimeter of the triangle in mm.

20. (a) Find the values of x, y, and z in the following list of equivalent fractions: $\frac{1}{4}$, $\frac{3}{12}$, $\frac{x}{20}$, $\frac{6}{24}$, $\frac{7}{y}$, $\frac{9}{36}$, $\frac{z}{40}$.

(b) Simplify $2m - 6n - 4m + 10n + 6m + n$.

(c) In a Chemistry practical session, each group of students requires 375 milligrams of chemicals to carry out an experiment. How many similar groups will be formed by the teacher if 3 grams of chemicals are available?

(d) A piece of wire has a length of l meters. If the wire is bent to form a square of width (w):
(i) Express w in terms of l.
(ii) Find the length of the wire if the square has a width of 3 meters.

(e) Find the time it takes a principal of sh. 500,000 to make an interest of sh. 112,500 at 7.5% interest rate per annum.

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) Nutritional deficiency caused by insufficient supply of protein in children is known as

A Elephantiasis B Kwashiorkor C Malaria
D Amoebiasis E Cholera.

(ii) Cholera is an example of the diseases commonly known as

A communicable diseases B erupted disease C asexual diseases
D non-communicable diseases E sexual diseases.

(iii) A neuron is also known as

A epithelial cell B nerve cell C somatic cell
D reproductive cell E skeletal cell.

(iv) A stage, mirror, eyepiece and coarse adjacent knob are parts of

A Organism B Beaker C Conical flask
D Paramecium E Microscope.

(v) Which kind of blood is contained by the left ventricle of a heart?

A Deoxygenated. B Oxygenated. C Plasma.
D Watery. E Diluted.

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

(i) _____ is a substance responsible for coagulation of milk in the stomach.

(ii) Cassava is stored in plants organs known as _____.

(iii) The first part of the small intestine is known as _____.

(iv) A disorder caused by taking a lot of carbohydrates, fats and oils than what the body requires is known as _____.

(v) _____ is an organic catalyst which is protein in nature.

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 structure which controls all activities of the cell.	A Tissue
(ii) A part that gives the plant cell a definite shape and protection.	B Cell membrane
(iii) A part which controls the entry of molecules and substances into the cell.	C Cell
(iv) A group of cell that perform the same function.	D Nucleus
(v) The basic functional unit of life.	E Cell wall
	F Organ
	G system

(b) (i) Give two adaptations of the ileum for absorption function of digested food.

(ii) Mention two raw materials of photosynthesis.

(iii) Write a balanced chemical equation of photosynthesis.

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 of the following is **not** among the gases composing air?
A Hydrogen B Oxygen C Helium
D Nitrogen E Noble gases.

(ii) In studying chemistry, the organized set of guidelines to solve a problem is known as
A experimentation B data interpretation C problem identification
D scientific procedure E laboratory procedure.

(iii) What is the form of syrup containing in the bottles of medicines which are written shake well before use?
A solution B suspension C solvent
D solute E emulsion.

(iv) Which of the following is **not** among the gases composing air?
A metal B wood C petrol D coal gas E oxygen.

(v) A substance formed by physical combination of two or more substances is called
A compound B mixture C solution
D solvent E element.

(b) Fill in the blanks by writing the correct answer in the answer booklet provided.

(i) The component of a solution that dissolves the other substances is called _____.

(ii) A test that is done to find out if the formulated hypothesis is true or false is called _____.

(iii) _____ is an injury that causes a change in the colour of the skin.

(iv) The first step in the scientific procedure is _____.

(v) The melting point of ice is _____.

24. (a) (i) List three factors that affect the problem being investigated (variables).
(ii) State the necessary conditions for the rusting of an iron to occur.

(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) Method of separating two immiscible liquids.	A Decantation
(ii) Method of separating coloured components using a moving solvent on materials that absorb such solvent.	B deposition
(iii) A suitable method of separating edible oils from seeds.	C Solvent extraction
(iv) Method of separating an insoluble solid from a liquid.	D Evaporation
(v) Method of separating liquids which forms suspension with a solvent.	E Chromatography
	F Layer separation
	G Filtration