THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL

010

QUALIFYING TEST
(For Private Candidates Only)

Time: 3 Hours ***Tuesday, 11st October 2011 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** the questions in section A and choose **one (1)** part in section B and answer **all** the questions in that part.
4. All questions should be answered in English except Kiswahili subject in part II that should be answered in Kiswahili.
5. Calculators are **not** allowed in the examination room.
6. Cellular phones are **not** allowed in the examination room.
7. Write your **Examination Number** on every page of your answer booklet(s).

SECTION A (60 Marks)

PART I: CIVICS AND CURRENT AFFAIRS

Answer **all** questions in this part.

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) A set of laws which govern a country are known as

A memorandum B bill C constitution D bylaws E decree.

(ii) The right of the people to belong to organizations of their choice is referred to as

A freedom of assembly B freedom of association C the right to work
D freedom of expression E the right to equality.

(iii) The impact of the 1965 interim constitution of Tanzania was

A introduction of monoparty system B Arusha Declaration
C introduction of multiparty system D creation of the union government
E implementation of villagezation programs.

(iv) One of the following is a common feature of presidential system of government

A a king or queen becomes a ceremonial leader
B the president has unlimited power
C there is no separation of powers
D the president is directly elected by people
E the first lady becomes the queen.

(v) A nuclear family is composed of a

A wife and a husband B single parent and children
C single parent and relatives D wife husband, children and other relatives
E wife, husband and children

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

List A	List B
(i) The ability to maintain position regardless the pull from the friends.	A. Empathy
(ii) The act of assessing and assigning value to oneself.	B. Self- esteem
(iii) The ability to imagine and share other people's feelings.	C. Self confidence
(iv) The feelings of being happy with one's character and abilities.	D. Self worth
(v) The ability to understand one's potentials, feelings, strengths and weaknesses.	E. Self control
	F. Peer resistance
	G. Self awareness
	H. Self reliance

3. Complete the following sentences by writing the correct answer in your answer booklet.

(a) The smallest local government unit is called _____.

(b) The branch of government which is responsible for administrative functions is known as _____.

(c) A social group of people where the members are closely related to each other is known as _____.

(d) The head of municipal council is known as_____.

(e) The functions performed by the local governments depending on the nature of the area and availability of resources are known as _____.

4. Outline any five problems facing street children.

PART II: KISWAHILI AND ENGLISH LANGUAGE
KISWAHILI

UFAHAMU NA UFUPISHO

Jibu maswali **yote** katika sehemu hii.

5. Soma habari ifuatayo kisha jibu maswali yanayofuata kwa kuandika herufi ya jibu sahihi kwenye kitabu chako cha kujibia.

Pamoja na juhudi kubwa zinazofanywa ili kuudhibiti ugonjwa hatari wa Upungufu wa Kinga Mwilini yaani UKIMWI, bado unaenea kwa kasi sana katika nchi masikini ikiwemo Tanzania. Takwimu zinazotolewa na serikali zinaonesha kuwa maambukizi yanaongezeka katika maeneo mengi ya nchi.

Baadhi ya tabia hatarishi zinazochangia kuenea kwa UKIMWI ni pamoja na kuwa na wapenzi wengi, matumizi ya madawa ya kulevya na kutotumia kondomu kabisa au kuwa na matumizi ambayo si sahihi wakati wa kujamiiana.

Zipo sababu mbali mbali zinazochangia hali hii, mojawapo ikiwa ni umasikini wa kipato kwa baadhi ya wanawake na tamaa kwa baadhi ya wanaume. Wasichana na wanawake wengine hupenda kujiuza kama bidhaa sokoni ili wapate fedha ya **kujikimu** katika maisha yao. Hufanya hivyo kwa kujirahisisha kwa wanaume wenye **bulungutu** la fedha. Baadhi yao hujipeleka kwenye mabaa na kwenye vilabu vya pombe. Wakishakunywa na **kuvaa miwani** wote huingia katika ulimwengu mwingine ambako huanza kuambukizana virusi vya UKIMWI.

Mbali na hali ngumu ya maisha, lipo jambo jingine linalochangia kwa kiasi kikubwa kuenea kwa UKIMWI, nalo ni raha na starehe ambayo watu wengi huitafuta. Hufanya hivyo ili kujistarehesha wao wenyewe kwa kutumia miili yao kama sehemu ya burudani. Hukumbatiana ili kujisahaulisha taabu na **misukosuko** katika maisha.

Aidha ukosefu wa elimu juu ya ugonjwa huu nao huchangia kwa kiasi kikubwa. Baadhi ya watu hawajafundishwa athari za UKIMWI kwa jamii hivyo kukosa ufahamu wa kutosha. Wao hufikiri kuwa ni ndoto kuambukizwa ugonjwa huu. Hii imesababisha baadhi yao kujiingiza katika hatari kwa ujinga.

Athari za UKIMWI katika jamii ni kama kushuka kwa shughuli za uzalishaji mali, kuenea kwa magonjwa nyemelezi, kifo na nyinginezo. "Tanzania bila UKIMWI inawezekana", hivyo ni jukumu la kila mmoja wetu kujilinda asiambukizwe virusi vya UKIMWI.

Maswali

(a) Andika kichwa cha habari uliyosoma kisichozidi maneno matano.

(b) Elezea maana ya maneno yaliyopigiwa mstari katika habari uliyosoma.

(c) Ni kwa namna gani UKIMWI huchangia kushuka kwa uzalishaji mali?

(d) Kwanini mwandishi anadhani kuwa watu wengine wanajiingiza katika hatari ya kuambukizwa ugonjwa wa UKIMWI kwa ujinga?

6. (a) Eleza maana ya istilahi zifuatazo:
(i) Sanaa (ii) Fasihi.

(b) Taja sifa tatu za fasihi simulizi.

7. (a) Andika nomino mbili zinazoweza kuundwa kutokana na vitenzi vifuatavyo:
(i) Safiri
(ii) Funga
(iii) Tega

(b) Andika methali moja inayofanana na hizi zifuatazo:
(i) Mpanda ngazi hushuka.
(ii) Umdhaniaye siye kumbe ndiye.

8. Andika insha yenye maneno kati ya 100 na 120 katika kitabu chako cha kujibia kuhusu mada ifuatayo: "Faida za ng'ombe katika jamii."

ENGLISH LANGUAGE

Answer **all** questions.

9. Write a composition of not more than 120 words on the following topic; 'The job I like most.'

10. Read the following passage carefully and then answer the questions that follow, by writing the letter of the correct answer beside the item number in your answer booklet.

Africa is very rich in raw materials. Some of these materials are minerals such as copper, iron ore, bauxite, oil and manganese. Other raw materials include coffee, cotton, groundnuts, tobacco and rubber. All these materials must be processed in various ways in order to be useful to man.

In the past, Africa was used by Europe and North America as an important source of raw materials. Most of the raw materials were exported to be processed in Europe and North America. Tin for example, was exported from Nigeria so that cans could be manufactured. Cocoa was grown in Ghana for European factories to turn into bars of chocolate or chocolate drinks. Iron ore from Liberia was used in Europe for making steel.

African countries are now trying to process more of their raw materials for their own use. For example, much of the bauxite mined in Ghana will soon be sent to an alumina plant being built in Ghana, where it will be processed to aluminum. This means that one day Ghana will no longer need to import aluminum, thus saving money. In addition, more jobs will be created for the Ghanaian population.

There are also many examples from Tanzania, Kenya and Uganda. Leather is turned into foot wear and pineapples are canned for home consumption and export in Kenya while Tobacco is turned into Cigarette in Dar es Salaam. Apart from being a valuable export commodity, cotton is also woven into cloth in mills at Arusha, Jinja, Eldoret, Mwanza, Dar es Salaam and many other places. Moreover some of the Soda from Lake Magadi is used to make glass bottles in Mombasa.

However, Tanzania Kenya and Uganda are all still primarily agricultural countries. Industrial development still has a long way to go. A successful manufacturing industry can only be developed and sustained if the local population is large and wealthy enough to buy its products in quantity. It is for this reason that emphasis in government planning is at this stage much on rural development.

Questions

(i) Which of the following is **not** a raw material?
A cotton B coffee C rubber D chocolate E pyrethrum.

(ii) African Countries want to improve the economy through
A importing finished goods from Europe
B importing raw materials instead of exporting them
C processing bauxite locally instead of exporting aluminum
D processing more of their own materials
E preventing the export of manufactured goods.

(iii) Industrial expansion in East Africa will only take place if
A these countries cease to be primarily agricultural countries
B the local population decreases
C there is a sufficient demand for locally manufactured goods
D every one participates in manufacturing industries
E there in an increase of exported goods in the markets.

(iv) What is the main point in the second paragraph?
A the relationship between Africa and other continents
B how Africa imported many raw materials
C the types of raw materials found in the past
D the wealth found in Africa
E the destination of the raw materials from Africa.

(v) Which of the following is closest in meaning to the word **"source?"** as used in paragraph two?
A Provider B Marker C Manufacturer D Processor E Exporter.

11. For each of the items (i) – (v) choose the correct answer among the given alternatives and write its letter beside the item number.

(i) Peter likes reading magazines every morning.
A Do he? B Doesn't he? C Did he?
D Does he? E Didn't he?

(ii) When I grow up, I will either become a pilot _____ a driver.
A and B or C by
D but E with

(iii) _____ he studied hard, he didn't pass his examinations.
A Just B Unless C Despite
D When E Although.

(iv) Mwajuma has been a driver _____ six years.
A for B at least C since
D in E at

(v) I did my homework_____ I got home.
A then B while C when
D if E but.

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

(i) I have not _____ you for six years now (see).

(ii) His efforts _____ in success (result).

(iii) When I arrived at the bus stop I learnt that the bus had already _____ (leave).

(iv) We_____ to spend August in England (be going).

(v) They _____ written a letter (has).

SECTION B (40 Marks)

This section consists of three parts
Part I: Geography and History
Part II: Physics and Mathematics
Part III: Biology and Chemistry

Choose only **one (1)** part and answer all questions in that respective part.

PART I: GEOGRAPHY AND HISTORY

GEOGRAPHY (20 Marks)

Answer **all** questions.

13. For each of the items (i) – (x), choose the correct answer among the given alternatives and write its letter beside the item number.

(i) Which of the following planets has a large number of satellites?
A Neptune B Saturn C Mars D Earth E Jupiter.

(ii) The kind of farming whereby farmers grow a number of crops in their farms at one time is known as
A intercropping B mixed farming C monocropping
D transhumance E nomadic farming.

(iii) For the people in the Northern Hemisphere, June 21st is known as
A winter solstice B autumn C spring equinox
D doldrums E summer solstice.

(iv) One of the followings is an example of renewable energy
A oil B coal C uranium D geothermal E natural gas.

(v) A representative scale of 1:300,000 can be represented by a statement scale of
A 0.5 cm to 3 km B 2 cm to 30 km C 1 cm to 300,000 cm.
D 1 cm to 0.3 km E 1 cm to 30 km.

(vi) The system in which a farmer keeps animals while settled permanently in one area is known as
A semi-sedentary pastoralism B nomadic pastoralism
C livestock farming D sedentary livestock farming
E semi-nomadic pastoralism.

(vii) An example of light industry is
A industrial machinery industry B transport equipment industry
C aircraft industry D iron and steel industry
E petro chemical industry

(viii) The Equatorial climate is characterised by
A heavy rainfall from westerly winds
B low temperature and cyclonic rainfall
C small annual range of temperature
D heavy summer rainfall
E winter rainfall.

(ix) Wind direction is determined by the instrument called
A wind vane
B wind gauge
C seismograph
D anemometer
E compass.

(x) The time allocated along the same meridian is called
A Greenwich Mean Time
B Local Mean Time
C Great Mean Time
D Zone Time
E Standard Time.

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

(i) The lines on maps joining places with the same precipitation are called _____.

(ii) Water vapour changes into water droplets in the process known as _____.

(iii) A situation whereby the temperature decreases with an increase of altitude is known as _____.

(iv) The arrangement of planets in relation to the position of the sun is called_____.

(v) The type of rainfall which produces leeward and windward conditions in mountainous regions is known as_____.

(b) List down the five essentials of a map.

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.

(i) One of the effects of Mfecane war was
A the great trek
B discovery of minerals
C depopulation and formation of states
D Anglo Boer War
E expansion of Dutch settlements.

(ii) One of the following trades involved the continents of Africa, America and Europe between 15^{th} and 19^{th} centuries.
A Trans Saharan Trade.
B Legitimate Trade.
C East African Long Distance Trade.
D Barter Trade.
E Triangular Trade.

(iii) In 1886 William Macknoon founded a company which was known as
A British South African Company (BSAC)
B Germany East African Company (GEAC)
C Royal Niger Company (RNC)
D The Imperial British East African Company (IBEAC)
E United African Company (UAC).

(iv) The first European to settle in the cape in South Africa were
A Dutch B British C Germany D French E Portuguese.

(v) In most parts of Africa the African ruling classes appropriated the surplus through
A collective cultivation B looting and plundering C barter trade
D taxation E mercantilism.

(vi) The skull of the earliest man was discovered by Dr. Leakey in the year
A 1939 B 1959 C 1890 D 1856 E 1859.

(vii) The early agents of colonialism in East Africa in the 19th Century were
A Traders, Missionaries and Arabs
B Charted companies, Arabs and Missionaries
C Explores, Traders and Missionaries
D Missionaries, Arabs and Explores
E Arabs, Explores and Missionaries.

(viii) The Zanzibar Slave Market was closed after the
A 1886 Anglo – German Agreement B 1845 Hamarton Treaty
C 1822 Moresby Treaty D 1885 Berlin Conference
E 1873 Frere treaty.

(ix) The period marked by strong competition and warfare among European States was known as
A Industrial Capitalism B the Early Stone Age C Iron Age
D Monopoly Capitalism E the Age of Mercantilism.

(x) One of the following methods was used to obtain gold in African societies
A titration B shaft method C pottery
D smelting E open cast.

16. (a) Write the correct word, figure or words which complete the following sentences in your answer booklet.

(i) It is believed that man emerged in the world about _____million years ago.

(ii) A method of getting historical information through the word of mouth is known as _____.

(iii) John Krapf opened first missionary centre at Rabai in the year _____.

(iv) The last foreigners to colonize Tanganyika were the _____.

(v) The first Nguni group to reach Tanganyika is popularly known as_____.

(b) Briefly explain the five sources of Historical information.

PART II: PHYSICS AND MATHEMATICS

PHYSICS (20 Marks)

Answer **all** the 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.

(i) The pressure of air inside a car tyre increases if the car stands for sometimes in sunlight. According to kinetic theory this is due to an increase of

A the size of air molecules
B the number of air molecules
C the speed of air molecules
D the average distance between air molecules
E the volume of air molecules.

(ii) According to the scientific definition of work, pushing on rock accomplishes no work unless there is

A movement in the same direction as that of force
B a high applied force
C movement in the opposite direction of force
D a net force in all directions
E movement in all directions.

(iii) An atom is electrically neutral because it consists of an equal number of:

A protons and neutrons
B protons, electrons and neutrons
C electrons and neutrons
D protons and electrons
E neutrons and free moving electrons.

(iv) The following are good examples of strong magnetic materials:

A copper and glass
B nickel and cobalt
C cobalt and glass
D copper and nickel
E nickel and glass.

(v) Which of the following statements is **not** correct?

A Mercury particles have high cohesive forces.
B The adhesive forces of water molecules make it wet glass.
C Molecules of water are bound together by attractive forces.
D The surface of a liquid in a vessel is not at its minimum area.
E Soap and other detergents reduce the surface tension of pure water.

(vi) The S.I units of the basic quantities measured in mechanics are

A Newton, watt and joule
B Newton, kilogram and second
C Kilogram, metre and second
D Newton, metre and second
E Metre, second and ampere.

(vii) Which of the followings is true about Pascal's principle of transmission of pressure in fluids?

A pressure is equally transmitted in a liquid.
B pressure is the ratio of force to area.
C pressure sometimes depends on the height of the liquid column.
D pressure is affected by the force of gravity.
E pressure in a fluid does not depend on its density.

(viii) If a body floats in a liquid
A its volume is greater than the upthrust on it
B its weight is greater than the upthrust on it
C its volume is equal to the apparent loss in weight
D its volume is equal to the volume of liquid displaced
E its weight is equal to the upthrust on it.

(ix) When charging a body by friction, the particles which are transferred are
A protons B electrons C neutrons
D electrons and protons E protons and nuclei.

(x) A boy weighing 65kg climbs up a staircase to a height of 5m in 4seconds. The rate at which the work is done by the boy is
A 3250 Watts B 52 Joules C 812.5 Watts D 81.25 Joules E 325 Watts.

18. (a) Mention two advantages of friction.

(b) A block of iron of mass 100kg is placed on top of a horizontal table. If the horizontal force required just to move the block is 19.6N, calculate the coefficient of friction between the two surfaces. (Gravitational force = 9.8N/kg).

(c) List down two statements of the laws of reflection of light.

(d) How many images are formed when two plane mirrors are arranged at an angle of 120^0.

(e) Two coils of wire of resistance 2 ohms and 3 ohms respectively are connected in parallel with a 10 volt battery. Calculate the current passing through:
(i) The whole circuit
(ii) 3 ohms coil.

BASIC MATHEMATICS (20 Marks)

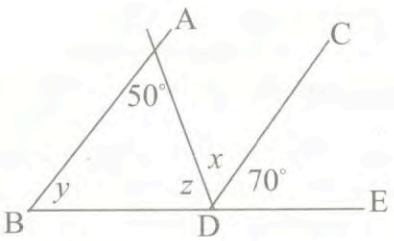
Answer **all** questions.

19. (a) By prime factorization, find the LCM of 36, 48 and 288.

(b) Find the value of $\frac{135.2 \times 4.21}{21.3}$ correct to 3 significant figures.

(c) A car is sold for Tshs 4,560,000/=, at a loss of 5% on the cost price. Find the cost price.

(d) Calculate the values of x, y and z from the figure below given that the lines AB and CD are parallel.



20. (a) Find the solution of the following pair of simultaneous equations using graphical method.

$$\begin{cases} 4x+2y=12 \\ 12x-2y=12 \end{cases}$$

(b) Given U = $\{x: x$ is an integer and $2 \le x \le 10\}$ is a universal set, A = {multiple of 3} and B = {prime numbers}, find the members of
(i) $A \cap B$ (ii) $A \cup B$ (iii) $(A \cup B)'$ and then represent the sets (i – iii) in a well labeled venn diagram.

(c) The ages of 13 students in a certain class were recorded in the following array: 14, 14, 13, 16, 14, 16, 15, 14, 15, 13, 14, 17, and 15.
Represent this data in (i) a frequency distribution table; (ii) a histogram.

(d) Find the value of log 5 – log 8 + 4log2 without using mathematical tables.

PART III: BIOLOGY AND CHEMISTRY

BIOLOGY (20 Marks)

Answer **all** questions.

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

(i) The following is a list of diseases caused by bacteria
A tuberculosis, elephantiasis and small pox
B cholera, tuberculosis and pneumonia
C bilharzia, cholera and small pox
D AIDS, cholera and common cold
E AIDS, tuberculosis and small pox.

(ii) The function of an enzyme is to
A change the rate of chemical reaction
B control the equilibrium points of reactions
C change the directions of reactions
D cause chemical reactions that would not otherwise take place
E change the rate of materials used in the reactions.

(iii) Scurvy is a deficiency disease caused by lack of one of the following vitamins
A Vitamin B B Vitamin K C Vitamin D
D Vitamin C E Vitamin B_1.

(iv) Gaseous exchange in insects take place through one of the following structures
A gills B skin C lungs
D lung book E spiracle.

(v) Pulmonary portal vein carries blood from the following parts
A heart to the lungs B lung to the head C lungs to the heart
D body to the heart E heart to the body.

(b) Fill the blanks by using the words or phrases given in the box below.

A List of Words/Phrases

wall pressure, phloem, xylem, photosynthesis, insulin, respiration turgor pressure, plant cell, animal cell.

(i) The process which converts sunlight energy to chemical energy in green plants is known as_____.

(ii) A cell with large vacuole is _____.

(iii) The vascular tissue which transports organic solutes in plants is _____.

(iv) The pressure of the cell contents against cell wall is _____.

(v) The amount of sugar in blood is regulated by_____.

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

List A	List B
(i) Digests peptide to amino acid.	A. Lipase
(ii) It is present in the gastric juice.	B. Pepsin
(iii) Digest fat to fatty acid and glycerol.	C. Erapsin
(iv) Catalyses the hydrolysis of protein to peptide.	D. Lactase
(v) Catalyses the hydrolysis of starch to maltose.	E. Salivary amylase
	F. Trypsin

(b) (i) Mention any four symptoms of malaria.

(ii) Suggest three preventive measures for malaria

24. (a) Match the uses of apparatus in **List A** with the corresponding apparatus in **List B** by writing the letter of the correct response beside the item number.

List A	List B
(i) Holding, heating and estimating the volume of liquids.	A. Test tube
(ii) Holding substances that are being weighed or observed.	B. Watch glass
(iii) Holding chemicals and heating small portion of the chemicals in liquid or solid form.	C. Beaker
(iv) Adding reagents into flasks with small opening during experiment.	D. Flasks
(v) Holding liquids and solids during experiments.	E. Spatula
	F. Measuring syringe
	G. Thistle funnel

(b) The following diagram demonstrates the conditions necessary for rusting. What will be observed in each test tube after two days? Give reasons.

