

TEHILAH FOUNDATION  
THE CITY COUNCIL OF MBEYA (CCM)  
**VANESSA SECONDARY SCHOOL**

**P.O. BOX 1301, MBEYA**

**EMAIL: [vanessasecondary@yahoo.com](mailto:vanessasecondary@yahoo.com)**

**TEL: +255 762182740**

**FORM TWO HOME PACKAGE**

**INSTRUCTIONS**

- This package consists of various subjects as per curriculum.
- You are required to answer all questions in each subject
- Use exercise book (counter book) to answer the questions
- The time allocated is 30 days.
- Bring the exercise book with you when the schools opens, whoever failing to provide the response to this package will be sent home.
- For more clarification call academic teachers:-
  1. 0738 996215
  2. MR. GILSON J 0766651921

# CIVICS

1. For each of the items (i)-(xx) choose the correct answer among the given alternatives and write its letter in the table provided.
  - i) Which of the following does not entrance national unity in Tanzania
    - a) Sports and games
    - b) Traditions and customs
    - c) Foreign language
    - d) National language
  - ii) Problem solving techniques help to
    - a) Save human life
    - b) Create human life
    - c) Get possible solutions
    - d) Promote unity and solidarity
  - iii) A person who knows his/her right and duties is said to be
    - a) An alien
    - b) A responsible citizen
    - c) A responsible citizen
    - d) A legal member of a state
  - iv) Which of the following type of work involves the use of more mental skill than physical strengths
    - a) Nursing and teaching
    - b) Carpentry and teaching
    - c) Farming and nursing
    - d) Teaching and lumbering
  - v) In a democratic state the power of the government is obtained through
    - a) Democratic campaigns
    - b) Democratic election
    - c) Independence of the parliament
    - d) Democratic mass rallies
  - vi) A relationship between two partners before marriage is called
    - a) Friendship
    - b) Partnership
    - c) Courtship
    - d) Membership
  - vii) A large group of people living together in one area with their own government, language, traditions and history is called:-
    - a) Community
    - b) A nation
    - c) A republic
    - d) A family
  - viii) People who flee their home country to go and live in foreign countries due to insecurity in their country are called
    - a) Street children
    - b) Refugees
    - c) Displaced people
    - d) Women and children
  - ix) A social group of people who are closely related to each other by blood, marriage or by adaption is called a
    - a) Community
    - b) Nation
    - c) Family
    - d) Government

- x) The following are members a nuclear family
  - a) Wife, husband and children
  - b) One parent with children
  - c) Wife, grandfather and children
  - d) Wife, sister, and grandfather
- xi) Which one of the following is the source of local government revenue
  - a) Duties
  - b) Direct tax
  - c) Indirect tax
  - d) Domestic loan borrowing
- xii) The national constitution is the basic law of a country. This means that
  - a) All other laws must conform to the provision of the constitutions
  - b) Constitution is rigid to change
  - c) Constitution can be owned by individual
  - d) Constitution is the property of army
- xiii) The central government is the government which deals with matters concerning
  - a) Village
  - b) Ward
  - c) Regional
  - d) The whole nation
- xiv) Tanganyika and Zanzibar united in 26<sup>th</sup> April, 1964. This led to the formation of
  - a) African union
  - b) Republic of Tanzania
  - c) TANU
  - d) Multiparty system
- xv) The smallest unit of local government is
  - a) Is the ward government
  - b) Is the central government
  - c) Is the village government
  - d) Is the district government
- xvi) Aspects of human rights include
  - a) Civil and political rights
  - b) Moral rights
  - c) Legal rights
  - d) Right to equality
- xvii) In Tanganyika one can loose citizenship status due to the following
  - a) If one obtained his/her citizenship by fraud, dual nationality
  - b) Refuse to pay tax
  - c) Non educated person
  - d) Lazy person
- xviii) Women are special group because
  - a) They are underprivileged, oppressed and exploited.
  - b) They have ability to cure family
  - c) They leave their home and live in other places
  - d) They are physically unfit to work effectively
- xix) Urban authorities include the following
  - a) The village government
  - b) The ward government
  - c) The district councils
  - d) Town councils, municipal and city councils
- xx) Form of representative democracy where by the parliament and cabinet are independent organs is known as
  - a) Parliamentary democracy
  - b) Presidential democracy
  - c) Combined presidential and parliamentary
  - d) Representative democracy

- i. The freedom to decide and executes domestic and foreign policies without interference from other country is :-  
 A. Democracy  
 B. Sovereignty  
 C. Political freedom ( )  
 D. Free and fair election
- ii. The document which shows distribution of power among the three areas of the government is termed as:-  
 A. Policy  
 B. Memorandum  
 C. Election manifesto ( )  
 D. Constitution
- iii. The following are civic festivals and holidays EXCEPT:-  
 A. Nyerere Day  
 B. Mauled Day  
 C. Independent Day ( )  
 D. Union Day
- iv. The national motto of United Republic of Tanzania inscribed on the coat of arms is  
 A. Development  
 B. Freedom and wonk  
 C. Freedom and unity ( )  
 D. Cooperation
- v. The United Nations adopted the Universal Declaration of Human right in :-  
 A. 1962  
 B. 1947  
 C. 1948 ( )  
 D. 1964
- vi. One among the following is NOT a principle of democracy  
 A. Equality  
 B. Cruelty  
 C. Rule of law ( )  
 D. Bill of right
- vii. One of the following from of marriage does NOT exist in Tanzania  
 A. Monogamy  
 B. Polyandry  
 C. Polygamy ( )  
 D. Bigamy
- viii. A feeling of loyalty and love of one's country is called  
 A. Empathy  
 B. Self- esteem  
 C. Self-awareness ( )  
 D. Patriotism
- ix. Which one of the following is **NOT** an element of effective communication  
 A. Medium  
 B. Communication  
 C. Sender ( )  
 D. Message
- x. Who among the following is **NOT** a leader for parliamentary sessions in the National Assembly?  
 A. Deputy speaker  
 B. Chief Justice  
 C. Clerk ( )

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- D) National flag
- xi. A society failure to realize different roles played by males and female is referred to as
- A) Gender roles
  - B) Gender blind
  - C) Gender balance
  - D) Gender equity
  - E) Gender equality
- xii. The national anthem is sung when
- A) There is wedding
  - B) The prime minister is about to address the nation
  - C) The regional commissioner visits school
  - D) The president is about to inspect the guard of honour.
- xiii. What do you understand by the term nation
- A) A group of people with common interest
  - B) A large group of people living together in one area with their own government
  - C) A group of people like father, mother and children
  - D) A group of people who share a sense of belonging
- xiv. One of the following is not true about factors which weaken national sovereignty
- A) Ethnicity
  - B) Civil wars
  - C) Elections
  - D) Foreign debts

- xv. Source of life skills include  
 A) Decision making and assertiveness  
 B) Community and personality  
 C) Intensive reading and friendship  
 D) Schools and religion
- xvi. Universal declaration of human rights was declared on  
 A) 24<sup>th</sup> October 1945  
 B) 10<sup>th</sup> December 1948  
 C) 10<sup>th</sup> December 1945  
 D) 8<sup>th</sup> December 1945
- xvii. A situation where by special groups are treated in a way that they feel unwanted or less important is referred to as  
 A) Promotion  
 B) Perseverance  
 C) Stigmatization  
 D) Discrimination
- xviii. One of the following does not belong to objects of labour  
 A) And  
 B) Tractor  
 C) Water bodies  
 D) Mineral deposit
- xix. A group of people who are closed related by blood, marriage or adoption is called  
 A) Clan  
 B) Family  
 C) Society  
 D) Community
- xx. A right means  
 A) Anything given whether accepted or not accepted  
 B) Nothing entitled  
 C) Anything harmful to others  
 D) Something entitled without
- xxi. A Nuclear family comprises  
 A. Children, mother and Uncle  
 B. Father, grandfather and children  
 C. Father, mother and children  
 D. Mother, father and grandmother
- xxii. The road signs which are usually appear in triangle shapes are marked as:-  
 A. Informative road signs  
 B. Prohibitory road signs  
 C. Order signs  
 D. Warning road signs
- xxiii. The United Nations adopted the Universal Declaration of Human Rights in:-  
 A. 1945  
 B. 1948  
 C. 1918  
 D. 1990
- xxiv. The song of Tanzania nakupenda promotes   
 A. Desire and greedy  
 B. Love to the country  
 C. Union matter  
 D. Unity among Tanzanian
- xxv. As a commander Chief in Charge President:-   
 A. Has an authority of giving pardon to the criminals

- B. Has an authority of appointing the army general  
C. Has an authority of dissolving the parliament  
D. Has an authority of appointing the prime minister
- xxvi. A person who heads a city council is termed as:-  
A. City director  
B. Councilor  
C. Executive director  
D. Mayor
- xxvii. The biological difference between male and female is :-  
A. Sex  
B. Gender  
C. Homonies  
D. Gender role
- xxviii. Civics can be defined as the study of  
A. Laws, custom, norms and culture  
B. Human relationship in the community  
C. The government and its organs  
D. Human rights and responsibilities
- xxix. One of the following is NOT a problem solving technique:-  
A. Consulting an expert  
B. Guidance and counseling  
C. Seeking advice from an individual  
D. Cancelling and guidance
- xxx. \_\_\_\_\_ makes the organs of the states  
A. Executive, judiciary, legislature  
B. Legislature, parliament, police  
C. Judiciary, court of law, police  
D. Legislature, parliament, judiciary
- xxxi. The National Festivals are days when we celebrate:-  
A. Christmas and Eid-el-fitr  
B. Public holidays in every country  
C. Harvesting days  
D. Important events in our country
- xxxii. \_\_\_\_\_ is an illegal use of Public office for private gain  
A. Corruption  
B. Debt  
C. Loan  
D. Grafting
- xxxiii. Which stamen is NOT correct about the Democratic Government:-  
A. Respect of Human Rights  
B. Leaders are accountable to the citizens  
C. The rulers remain into power for a longtime  
D. Decision are made by the majority
- xxxiv. Street children are facing the following problems EXCEPT :-  
A. They lack parental and family care  
B. They are exposed to rape  
C. They develop bad behaviour like stealing  
D. They are able to resist negative influence from others
- xxxv. The government organ responsible for interpreting laws is :-  
A. Parliament  
B. Judiciary  
C. National assembly  
D. Executive



- xxxvi. \_\_\_\_\_ is the international instrument for promoting and defending human rights
- A. UN  
B. TAMWA  
C. ILO  
D. UDHR
- xxxvii. The statement "boys never cry" refers to gender
- A. Discrimination  
B. Role  
C. Segregation  
D. Stereotype
- xxxviii. Which of the following are the Human basic needs :-
- A. Education, food and clothes  
B. Food, shelter and education  
C. Shelter, clothes and food  
D. Safety, food and clothes.
- xxxix. The laws enacted by Local government are known as :-
- A. Bills  
B. Government notice  
C. Orders  
D. By laws
- xl. Direct taxes, grants and license are :-
- A. Burden payment to the citizens  
B. Source of government revenue  
C. Payment given to the local government by central government  
D. Loans offered by the banks and International organization.

2. Match the items in list A with those in List B by writing the correct letter against the corresponding questions number in the table provided

| LIST A |  | LIST B |  |
|--------|--|--------|--|
| (i)    | 9 <sup>th</sup> December   | (a)    | group of people responsible for controlling the country or state       |
| (ii)   | 12 <sup>th</sup> January   | (b)    | customs and believes of a particular group of people                   |
| (iii)  | Culture  | (c)    | an area of the land that has boundaries is under control of government |
| (iv)   | Sovereignty  | (d)    | independence day   |
| (v)    | Territory  | (e)    | freedom of a country to govern itself                                  |
| (vi)   | The secretary of district council  | (f)    | revolution day   |
| (vii)  | The head of municipal council  | (g)    | farmers day  |
| (viii) | Electing the village chairperson   | (h)    | Cabinet  |
| (ix)   | A proposal for a new law   | (i)    | Juvenile   |
| (x)    | A call for an official ministerial response to an urgent matter of national interest | (j)    | Executive  |
| (xi)   | The arm of the government responsible for putting laws into effect                   | (k)    | Parliament   |
| (xii)  | The head of the state, government and commander- in – chief of the armed forces      | (l)    | Speaker  |
| (xiii) | The main president's advisory organ  | (m)    | President  |
| (xiv)  | The court system which has specification for young children                          | (n)    | Taxes  |
|        |  | (o)    | Constitution   |
|        |  | (p)    | Village Assembly   |
|        |  | (q)    | Petition   |
|        |  | (r)    | DED  |
|        |  | (s)    | Mayor  |

|   |   |  |
|---|---|--|
| (xv) The central government's source of revenue                                       | (t) A bill                                      |  |
| (xvi) Agent of central government also helps to consolidate democracy within its area | (u) Judiciary                                   |  |
| (xvii) A person who solves conflicts between two people                               | (v) Prime minister                              |  |
| (xviii) A proposed law before approval  | (w) Bill  |  |
| (xix) Element of improper behaviour   | (x) Arrogance                                   |  |
| (xx) Involving one husband and two or more wives                                      | (y) Coat of arms                                |  |
| (xxi) Empowers woman towards gender equality  | (z) Direct democracy                            |  |
| (xxii) The freedom to live as you wish  | (aa) Election                                   |  |
| (xxiii) Movement of people and vehicles on the road                                   | (bb) Juvenile                                   |  |
| (xxiv) One of the things which identifies Tanzania as a nation                        | (cc) Liberty                                    |  |
| (xxv) Vote of no confidence to the head of state                                      | (dd) Local government                           |  |
| (xxvi) Magna carta  | (ee) Mediator                                   |  |
| (xxvii) A bill  | (ff) Monogamy                                   |  |
| (xxviii) Attorney General   | (gg) Parliament                                 |  |
| (xxix) Prelogetive Mercy  | (hh) Polygamy                                   |  |
| (xxx) A citizen   | (ii) Traffic                                    |  |
|   | (jj) User fees                                  |  |
|   | (kk) Strategic gender needs                     |  |
|   | (ll) A proposal for a new law                   |  |
|   | (mm) The body of laws that govern a state       |  |
|   | (nn) A person who have right to vote only       |  |
|   | (oo) A legal member of a state                  |  |
|   | (pp) The Universal Declaration of Human Rights  |  |
|   | (qq) The Origin of Human Rights in the World    |  |
|   | (rr) A person who solves criminal cases         |  |
|   | (ss) The advisor of government on legal matters |  |
|   | (tt) The president addresses the criminals      |  |
|   | (uu) President gives pardon to the criminals.   |  |

3. For each of the statement (i) – (x) write TRUE if the statement is correct or FALSE if the statement is incorrect

- School is one of the source of life skills .....
- The coat of arms has 13 components .....
- The national anthem has four verses .....
- Work is an expression of social identity .....
- Ministers are the members of cabinet .....
- The parliament is not the branch of legislative .....
- Democracy is the same as human rights .....
- The work of the parliament is to interpret the law .....
- A Tanzania can become an American citizen at the same time .....
- The currency of Zanzibar is different from that currency of Tanzania main land .....
- Indirect democracy is suitable to a country with large population.....
- The blue colour in the nation flag represents the minerals and natural resources.....
- By election is conducted to fill a vacant position like the member of the parliament.....

- n) Tanzania is bordered with eight countries
- o) The legal relationship between a husband and wife is known as a family
- p) Helping disable people is considered as human rights actions
- q) Using mass media violets the corrective measures against negatives socio-cultural practices in Tanzania
- r) Patronage is one of the types of corruption
- s) All ministers in Tanzania should be members of Parliament
- t) Work is not a duty of every member of the community
- u) Deputy ministers in different ministries are not members of cabinet
- v) Independent constitution of Tanzania of 1961 declared Tanzania as a republic nation
- w) Bill are expected to be laws as soon as they are signed by the president of the nation
- x) Freedom of speech is very common in non - democratic government
- y) Someone who as proper behaviour is likely to be accepted by the society
- z) HIV/ AIDS is not affecting people under 18 years old since the know nothing about sexual affairs
- aa) Pre Judice means drawing negative conclusion
- bb) Through the power from constitution, Tanzania president can appoint someone to be a member of parliament
- cc) Black colour in Tanzania national flag stands for minerals and natural resources utilizers by black people in Africa.
- dd) Territory is an area of land bounded by well-defined limits
- ee) The Yellow colour on the national flag represents natural wealth of Tanzania like minerals
- ff) Every person has a right to live free and go against the rules of the country
- gg) Sovereignty is the freedom that a country has to govern itself
- hh) There is no multipartism in Tanganyika
- ii) In order to have a stable family it is important to have legal bond between a man and a woman
- jj) Road signs are also known as traffic signs
- kk) The speaker of the national assembly is appointed by the president
- ll) The President of Zanzibar is the Vice President of the Union government
- mm) Defense and Security are among the Non –Union matters
- nn) Legal rights can be claimed to the court of law

4. Read the following passage and then answer the questions that follow

- A. Family is the basic foundation through which human beings begin to learn and experience about the surrounding. It begins from the child to start to imitate some actions that he/she observes from his/her close people like mother, father and other relatives

As the child grows up, the physical body is expected to get neutrality as well as increasing the learning capacity. The child can state to engage to study in educational institutions like Qur-anic Madrasa or Nursery school where a child may cope with some behaviors of the peer as the child continues to associate with others. The process of improving the interaction with others widen the chance to learn.

### Questions

- (i) Suggest the suitable title of the passage which is the first centre for the child to get knowledge?
- (ii) Where does the child learn first?

- (iii) In which way does the child starts to get knowledge?
- (iv) How does the child increase the knowledge and understanding?

- B. Wild life refers to all animals and plants living in their natural environment. Wild life is very important resources to any country as it produces meat which is used by man as food. Other products from animals and plants include wood, fur, skins and ornaments just to mention a few.

The increasing population in Tanzania has also increased the consumption of wild life products in the country. This has led to the increased destruction of natural habitat of animals and plants. Therefore, there is a need for intentional measures to conserve it. Such measures are protecting natural vegetation, enforcing law, practicing modern game cropping, avoid poaching, animal control from diseases and enacting by laws of not endangering animals.

Thus to conserve wild life in our environment it is also important to encourage game cropping in places where game species seem to be populated to reduce overgrazing and soil erosion.

### **Questions:**

- (i) Suggest a suitable title for this passage.
  - (ii) According to the passage mention two effects of increased population in Tanzania to the animals and plants
  - (iii) Outline two importance of wild life to mankind
  - (iv) Suggest two measures to conserve the wild life in Tanzania
  - (v) State two advantages of game cropping in populated games
- C. Development brings freedom provided it is development of people, but people cannot be development unless by working. Man can develop himself by what he does. That is by making his own decision by increasing his understanding of what is doing and by increasing his own knowledge and ability and his own full participation as an equal member in the life of community he lives. There are two factors which are very essentials for the development of people. The first is leadership through education and the second is democracy in decision making.

Leadership does not mean shouting at the people disagree with it does not even mean ordering people to do this or that. Leadership means talking and discussing with the people, explaining and persuading them. It is also meaning making constructive suggestion and working with people to show by action what it is that you are urging them to do. A part from that it means being one of the people and recognizing your equality with them.

### **Questions**

- i. Suggest the title of this passage
  - ii. Show the quality of good leadership according to the passage
  - iii. Mention two important for development according to the passage
  - iv. What behaviour should leaders avoid?
  - v. In the context of the passage. Outline two problems which hinder development in your society
- D. A political party is a group of citizens legally organized so as to take control of a government. In order to achieve its objective, a political party presents its

constitution and programs to the people on the basis of whom the people make decisions whether to accept or reject a part. In a representative democracy, the members of a political party voluntarily come together because they share similar or identical views regarding the matters of national interest. The party seeks to come through constitution means, it must promote national interest.

A political party may be progressive, reactionary, conservative, liberal or radical. Every political party formulates policies and understood by the people. It uses various media propaganda such as press and political rallies to educate the general public and seek support. In a democratic state, political parties launch election campaigns and a successful party after election forms the government.

### Questions

- i. Suggest a suitable title for this passage
- ii. What is a political party according to the passage?
- iii. What should be done by a political party initially?
- iv. How does a political party rise to power in a democratic state?
- v. Mention two ways used by the political parties to make policies and programs understood by the people; ..... and .....

5. Define the following concepts and for each give two points on its importance.

|  |   |
|--|---|
| <ol style="list-style-type: none"> <li>a. Local government</li> <li>b. Proper behaviour</li> <li>c. Courtship</li> <li>d. National constitution</li> <li>e. Road traffic signs</li> <li>f. Coat of Arms</li> <li>g. National flag</li> <li>h. Family</li> <li>i. Human right</li> <li>j. Courtship</li> <li>k. Government</li> <li>l. Family</li> <li>m. Constitution</li> <li>n. Citizenship</li> <li>o. Work</li> <li>p. Village assembly</li> <li>q. Life skills</li> <li>r. Traffic signs</li> <li>s. Democratic election</li> <li>t. Democracy</li> </ol> | <ol style="list-style-type: none"> <li>u. Road sign</li> <li>v. Government</li> <li>w. Courtship</li> <li>x. Work</li> <li>y. Constitution</li> <li>z. Family</li> <li>aa. Citizenship</li> <li>bb. Life skills</li> <li>cc. Civics</li> <li>dd. Civil responsibilities</li> <li>ee. Sovereignty</li> <li>ff. Multipartism democracy</li> <li>gg. Problem solving technique</li> <li>hh. Early marriage</li> <li>ii. Human rights abuse</li> <li>jj. Women discrimination</li> <li>kk. Women rights</li> <li>ll. Proper behavior</li> </ol> |
|--|---|

### SECTION C

6. The government of Tanzania has made strong commitments in the field of human rights. Using five points show how Tanzania promote human rights.
7. Local government play important roles in the development of the society. Agree with the statement using five points.
8. Tanganyika and Zanzibar united to form the union. This is because of various factors/reasons for their union. Explain four (4) reasons for the union of Tanganyika and Zanzibar.
9. Explain four (4) factors that lead to improper behavior in our societies.
10. Explain six causes of road accident in Tanzania
11. Identify six sources of central government revenue in Tanzania

12. Explain five importance of proper behaviour.
13. Explain five reasons for the union of Tanganyika and Zanzibar.

## BASIC MATHEMATICS

1. Differentiate between numerals and digits.
2. Write the following numbers as a product of prime factors.
  - a) 96
  - b) 2,100
3. Approximate the following:-
  - a) 17.8459 to 3 decimal places
  - b) 1699.704 to the nearest whole number.
4. Represent  $3x - 3 = 9$  on a number line.
5. A student goes to school six days a week. What fraction of the week does the student:-
  - a) Go to school?
  - b) Not go to school?
6. Work out  $\frac{7}{8} \div (1\frac{5}{9} \times 1\frac{1}{2})$

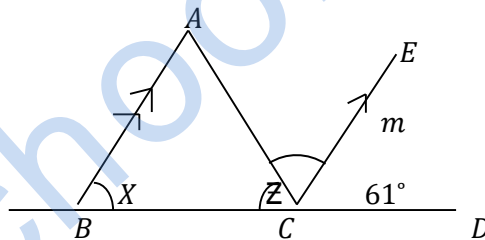
7. Convert 0.3215 to fraction in simplest form.

8. Work out:-

$$\begin{array}{r} \text{a) } \begin{array}{r} \text{km} \quad \text{dam} \quad \text{m} \\ 14 \quad 27 \quad 6 \\ - \quad 6 \quad 46 \quad 5 \\ \hline \end{array} \end{array}$$

$$\begin{array}{r} \text{b) } \begin{array}{r} \text{km} \quad \text{dam} \quad \text{m} \\ 4 \quad 2 \quad 4 \\ + 1 \quad 1 \quad 6 \\ \hline \end{array} \end{array}$$

9. Round off 0.4696149 to the nearest
  - a) Tenth
  - b) Hundredth
10. In the figure below, find the value of  $x, y, z$



11. A certain school has  $m$  form one students. Three new students join the class. How many students are there altogether?
12. Solve  $\frac{2x-1}{6} - \frac{2x}{5} = \frac{1}{2}$
13. Find the simple interest on Tsh. 400,000/= for 6 years at 10% per annum.
14. Find the gradient of the line joining points  $A(-1, 2)$  and  $B(3, 2)$
15. Given that  $I = \frac{PRT}{100}$ , then  $P = ?$
16. A quadrilateral, whose three angles are  $100^\circ, 60^\circ$ , and  $80^\circ$ . Find the fourth angle.
17. A shirt was sold for Tsh 60,000/= after a discount of 10%. What was the original price of the shirt?
18. Simplify  $8a + (6n - 1) \times 2 - 4a + n$
19. If the value of each exterior angle of a regular polygon is  $30^\circ$ . What is the size of each interior angle?
20. Write down all prime factors of 81.

21. Solve the following simultaneous equations:-

$$5u = 1 - 8v$$

$$5u = 3v - 21$$

22. If the line joining the point  $A(k, 5 + k)$  and  $B(2k, 2)$  has a gradient of 2, find the coordinates of the given points.

23. Three persons Ally, Billy and Tevin divide Tshs. 630,000 among themselves in the ratio of 2 : 3 : 5 respectively. How much money did each get?

24. Work out:-

i.  $|x + 2| \leq 8$

ii.  $|x + 2| = 8$

25. Find the ratio  $a : b : c$  if  $a : b = 2 : 5$  and  $b : c = 4 : 1$

26. Write  $2.4\dot{5}\dot{6}$  in the form of  $\frac{a}{b}$  where  $b \neq 0$ .

27. Given that:-

$$a * b = \frac{a-b}{2} + \frac{a-2b}{2a}. \text{ Find}$$

a)  $4 * 2$

b)  $x$  if  $1 * x = 2$

28. Round off the following figures as indicated:-

a) 45.678 (to 2 d.p)

b) 37.4837 (to nearest hundredth)

29. On the number line locate the integers

a)  $-2 < z \leq 5$

b) Evaluate  $145^2 - 55^2$

30. Evaluate:-  $\left(\frac{3}{5} \times \frac{10}{6}\right) + \left(2\frac{1}{4} \times \frac{2}{9}\right)$

31. Evaluate:-  $(9876 - 4321) \div 55 - 7 \times 6 + 3$ .

32. Find the LCM and G.C.F of 15, 35 and 56.

33. Solve for  $x$  if  $(5x - 1) - \frac{1}{2}(x - 2) + \frac{3}{5}(2x + 4) = 5\frac{1}{4}$

34. If  $a : x = 3 : 5$  and  $b : x = 3 : 10$ . Find the ratio of  $a : b$ .

35. Given the equation  $2x + 3y - 6 = 0$ . Find:-

a) The slope of the equation

b) The y-intercept and

c) The x-intercept of the equation.

36. A shopkeeper sells sugar at 600 Tsh. Per kg. If he made a profit of 5% over the buying price, what is the buying price?

37. Given that  $a^{3n} = 2$ . Evaluate  $5a^{6n}$ .

38. Find the solution and show on the number line given that:-  $|6 - x| \leq 1$

39. Rationalize the denominator of the following:-

$$\frac{\sqrt{3} + 2\sqrt{5}}{\sqrt{5}}$$

40. Simplify:-  $\log_2 32 - \log_3 9$

41. Solve the following simultaneous equation:-

$$\begin{cases} 0.1x + 0.2y = -0.2 \\ 1.5x - 0.4y = 10.6 \end{cases}$$

$$\begin{cases} 0.1x + 0.2y = -0.2 \\ 1.5x - 0.4y = 10.6 \end{cases}$$

42. Make  $K$  the subject of the formula if  $T = f \sqrt{\frac{K-d}{K}}$

43. Solve for  $x$  if  $\log(x - 4) + \log(x - 3) = \log 6$

44. DALADALA consumer petrol at the rate of a litre for every 10km. If the price of petrol is Tshs. 800 per litre, find the cost of petrol used for a journey of 900km.

45. If a translation  $T$  takes  $P(1, -3)$  to  $Q(5, 2)$ , find where will it take  $R(-4, -7)$ .

46. (a)  $P, Q$  and  $R$  are share 300,000/= in the ratio 2 : 3 : 5 respectively, how much will  $Q$  get?



(b) AKILIMALI sold his house at 240,000/= Tsh. and the profit obtained is 20%. How much money did he buy that house?

47. Solve graphically:-

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

48. (a) Indicate power, base and exponent at  $4^3$

(b) If  $\sqrt{20} = 20^x$  find  $x$

(c) Determine the value of  $x$

$$\log_2 x = \log_2 4 + \log_2 5 \sim$$

Carefully study the frequency distribution table for the scores of 20 students (in percentage) given here under:-

| Class intervals | Frequency | Commulative frequency |
|-----------------|-----------|-----------------------|
| 20 – 29         | 1         | 1                     |
| 30 – 39         | 2         | 3                     |
| 40 – 49         | 10        | 13                    |
| 50 – 59         | 5         | 18                    |
| 60 – 69         | 1         | 19                    |
| 70 – 79         | 1         | 20                    |
|                 | N = 20    |                       |

a) Draw histogram

b) Draw cumulative frequency curve and use it to estimate the median.

49. A triangle ABC is rotated through angle  $90^\circ$  in a clockwise direction about the origin. Find geometrically the image of the triangle ABC given that  $A(1, 2)$ ,  $B(6, 12)$  and  $C(3, 4)$

50. Distinguish the place values of 25 in the number 6, 274, and 267.

51. Divide the LCM of 24, 26 and 32 by their GCF.

52. Express 2.46146 into fraction.

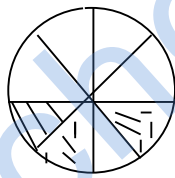
53. Perform the following operations on a number line:-

(a)  $2 - 4 + 6$

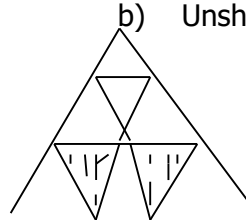
(b)  $-5 \times 3$

54. In each of the figure below, find the fraction of the figure that is:-

a) Shaded



b) Unshaded



55. Work out:-  $2\frac{3}{4} \times \frac{5}{6} \div \frac{11}{24} - 1\frac{1}{3}$

56. Convert the following into litres:-

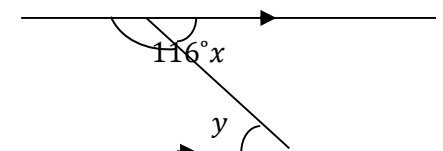
a) 340ml

b)  $3dm^3$

57. A piece of wire is 100hm, long. It is cut into equal pieces, each 25cm long. How many pieces are obtained?

58. Simplify:-  $2.467 \times 2.446$  correct to 2 significant figures.

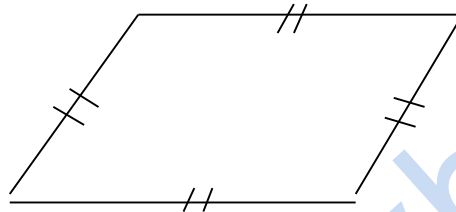
59. In the following figure find the value of  $x$ ,  $y$  and  $z$ .



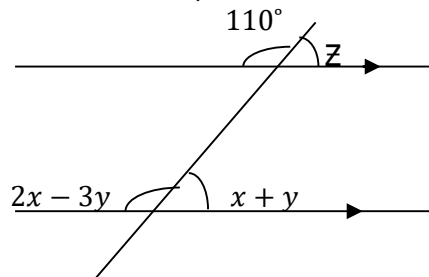
60. A woman has 50 animals (Goat and sheep). She sold  $2x$  goats and  $5n$  sheep. How many animals does she have now?



61. Solve  $\frac{7}{x} = \frac{3}{x-1}$
62. Show  $-4 \times 4$  on a number line.
63. The fractions  $\frac{2}{5} = \frac{x}{10} = \frac{10}{y}$  are equivalent. Find the value of  $x$  and  $y$
64. Write down all prime and even numbers between 5 and 10
65. Simplify the expression  $4 + 9a \div (6a + 4a) \times 2a$
66. Round off 54.6654 to the nearest:-  
 (i) Tenth (ii) Tens
67. Solve the equation  $0.03x + 0.46 = -0.44$
68. Write two equivalent fractions for the following:-  
 (i)  $\frac{2}{3}$  (ii)  $\frac{4}{9}$
69. Write all prime factors of 64
70. A straight line which passes through  $A(-4, 8)$  has x-intercept  $-16$ . Find the equation of this line in the form of  $y = mx + c$ .
71. Solve the following simultaneous equations.  
 $4x + 9y = 25$   
 $16x + 46 = 25y$
72. In the following figure  $ABCD$   $AC = 8\text{cm}$  and  $BD = 10\text{cm}$ . Determine its area.



73. Find the simple interest of Tsh. 400,000 for 6 years at 10% per annum.
74. Work out:-  
 i.  $|x + 3| < 6$   
 ii.  $|x + 3| = 6$
75. What do you understand by base ten numerations?
76. Find the LCM of 90 and 98.
77. Express 0.0046747 correct to:-  
 (a) 5 decimal places  
 (b) 4 significant figures.
78. Draw a number line and on it indicate the integers that lie between  $-6$  and  $6$ .
79. Write two equivalent fractions for each of the following fraction:-  
 a)  $\frac{35}{49}$   
 b)  $\frac{13}{47}$
80. Work out:-  $\frac{6}{11} \div \frac{32}{33} + \frac{6}{7} \times \frac{2}{7}$
81. Convert  $0.4\dot{1}46\dot{1}$  into fraction.
82. Arrange the following measurements in descending order  $200\text{m}$ ,  $20\text{cm}$ ,  $20\text{km}$ ,  $0.2\text{m}$ .
83. Round off 0.494161 to the nearest:-  
 i. Thousandth  
 ii. Hundredth
84. From the figure that follows, find the value of  $3x + y - 2z$



85. Express the number of days in 2 weeks.

86. Solve  $\frac{3}{x+6} = \frac{2}{x-5}$

87. If  $x$  and  $y$  are complementary angles such that  $x = 70^\circ$  and  $y = b + 50^\circ$ . Find the value of  $b$ .

88. Calculate  $4k + 4z - 4w + 4$  when  $k = 100$ ,  $z = 20$  and  $w = 2$ .

89. Simplify the expression  $10(2x + y) + 4|20x - 3y| - x$

90. Arrange the following fractions in ascending order:-  $\frac{2}{3}$ ,  $\frac{4}{9}$ ,  $\frac{3}{7}$  and  $\frac{4}{19}$

91. Represent  $4 \times -2$  on a number line.

92. Write equivalent fraction for each of the following:-

i.  $\frac{4}{19}$

ii.  $\frac{5}{19}$

93. Add 30% of 40 to 10000.

94. Find the missing numbers in:-

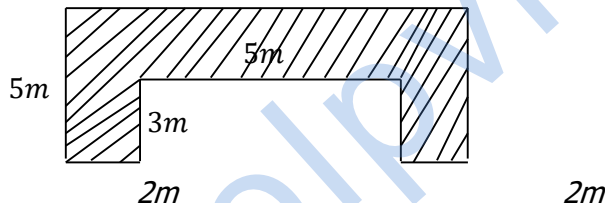
$$\frac{3}{4} = \frac{12}{?} = \frac{16}{?}$$

95. Find the slope and y-intercept of the line joining the points  $(-6, 3)$  and  $(-4, 6)$ .

96. Solve graphically the following pair of equations:-

$$\begin{cases} 6x + 3y = 0 \\ x = 3y + 6 \end{cases}$$

97. Calculate the shaded areas in the diagram below:-



98. Find the ratio  $a : b : c$  if  $a : b = 5 : 3$  and  $b : c = \frac{3}{4} : \frac{1}{2}$

99. Mishaka is to get a pay rise in the ratio 10 : 17. If at present, he earns sh. 170,000 per hour, find his new pay.

100. Solve the equation  $(\frac{1}{3})^x = 81$

101. Make  $k$  the subject of the formula  $k = \sqrt{PK + mn}$

102. Write  $\frac{25}{13}$  in decimal form correct to 4 significant figures

103. a) Factorize  $Q^2O^2 - 1$  b) Find the exact value of  $(105)^2$

104. If  $3^{x-2} \times 2^{3y-3} = 48$ , find the value of  $x^2 - y^2$

105. Rationalize the denominator  $\frac{6}{\sqrt{7}-2}$  and simplify it if possible

106. solve for  $k$  in the equation  $\frac{k-6}{k-4} = \frac{1}{k}$

107. if  $a : b = 3 : 4$  and  $b : c = 5 : 2$ , find the value of  $a : c$

108. if  $\log_2 x = -2$ , find the value of  $x$

109. find the solution set for inequalities  $4 < 5 - 3x \leq$

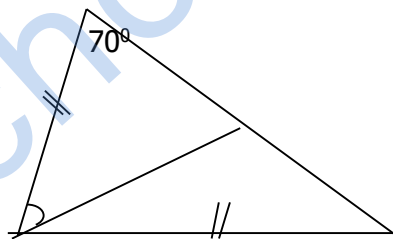
17 and shows its solution on the number line.

110. find the image of the point  $A(1, 2)$  after a reflection in the line  $y = x$

111. a ladder leans against a wall. if the ladder reaches 8m up the wall and its foot is 6cm from the base of the wall, find the length of the ladder

112. a translation  $T$  takes  $(3, 7)$  into  $(8, 10)$ . find where it takes  $(2, 5)$

113. three boys divided a certain amount of money in the ratio 2:3:5 if the total amount of money is 4,800/-. find the smallest share
114. simplify the expression  $5\sqrt{64} - 8\sqrt{32} + \sqrt{128}$
115. solve for x if  $|2x - 8| = 9$
116. without using mathematical table evaluate  $\frac{2 \sin 30^\circ + \sqrt{2} \cos 45^\circ}{\tan 45^\circ}$
117. given that  $2x + 6y + 12 = 0$ , find a) y – intercept b) x – intercept
118. the interior angle of a regular polygon is  $170^\circ$  find; a) Exterior angle b) number of sides
119. If 300,000 is deposited in a bank at annual interest rate of 6% to obtain 54,000/-. for how long does that take?
120. solve graphically  $3x + y = 7$  and  $x + 3y = 5$
121. Given the class interval 20 -29, find  
a) The class size b) The class mark  
c) Upper Limit and lower limit d) lower real limit and upper real limit
122. evaluate the following without using mathematical table  $\sqrt{\frac{0.06 \times 0.77}{0.066 \times 0.028}}$
123. in a class of 40 students, 18 are taking history and 15 are taking both history and mathematics. how many students are in the class  
given that  $ax^2 + bx - c = 0$  where a,b and c are real numbers and  $a \neq 0$  to shows
124. a) Evaluate  $0.645 + 54.5 + 366$   
b) Express  $0.3\dot{5}$  in the form of  $\frac{a}{b}$  where a and b are integers and  $b \neq 0$
125. Write 0.031141592  
a) Correct to 3 decimals places  
b) Correct to 1 significance figure  
c) In the form of  $AX10^n$  where  $1 \leq A < 10$
126. Given that  $x = 5.0 \times 10^8$  and  $y = 2 \times 10^{-4}$  express in the same way (standard form)  
(a)  $xy$  b)  $\frac{y}{x}$
127. evaluate  $(8^{\frac{1}{2}} - 3^{\frac{3}{2}})^{\frac{2}{3}}$  b) simplify  $1\frac{5}{6} \div \frac{5}{6}$  of  $\frac{3}{8} + \frac{2}{3}$
128. find the sum and difference of the LCM and GCF of the following 6,18 and 72
129. In figure below. find  $\hat{ATB}$



130. a) Simplify  $\frac{\log 6 + \log 3}{\log 54 - \log 3}$  b)  $\log_8 (2x - 1) = \frac{1}{3}$ . find the value of x
131. a) given that  $(3x + p^2) = 9x^2 - 6x + q$  for all value of x. find the value of p and q  
b) Simplify  $(3^{1/5})^2 - (2^{1/5})^2$
132. the scale of a map is 1cm to 5km. what area does  $8\text{cm}^2$  on the map represent on the ground
133. given the straight line  $4x - 3y + 2 = 0$  find  
a) The slope of this line  
b) The y – intercept of this line  
c) The x – intercept of this line
134. Determine the value of y given that  $5y - \frac{y-2}{3} = 5\frac{3y+1}{2}$



- A. hurt                      B. hurts                      C. has hunted                      D. was hurt                      E. have hurt
4. Maria is constantly ..... about the ..... in the restaurant.  
A. complained                      B. complain                      C. .....                      D. complaining                      E. complaints
5. "Have you..... us?" Shouted the old ..... on other side of the  
man ..... river  
A. hear                      B. hearing                      C. heard                      D. heard                      E. was hearing
6. The pupils didn't ..... the homework which I gave them yesterday.  
A. do                      B. did                      C. doing                      D. we're doing                      E. are doing
7. The new teacher ..... for a Civic and Moral lesson now.  
A. prepare                      B. are preparing                      C. prepared                      D. is preparing                      E. prepares
8. Kamusoko ..... doing the exercises since morning  
A. has                      B. have                      C. has been                      D. is being                      E. have been
9. Did you ..... her yesterday?  
A. visited                      B. visits                      C. visit                      D. had visited                      E. visiting
10. Here is ..... pupil who often..... speaking English.  
A. enjoy                      B. enjoys                      C. enjoyed                      D. is enjoying                      E. will enjoy
11. Simba ..... club would have ..... the match if they had ..... Well.  
A. train                      B. training                      C. trains                      D. We're training                      E. trained
13. That is ..... car.  
A. Thoma's                      B. Thomas'                      C. Thomas                      D. Thomas                      E. Thomas's
14. I doubt whether there is ..... flower in Mr. Musokes garden  
A. a lot                      B. any                      C. no                      D. some more                      E. few
16. The school manager will ..... to Dodoma for the annual meeting by this time tomorrow  
A. travelling                      B. travel                      C. be travelling                      D. travelled                      E. had travel
17. The hurricane ..... my pine trees before I came.  
A. had uprooting                      B. uprooting                      C. was uprooted                      D. uproots                      E. had uprooted
18. The house girl will ..... the dishes tomorrow when I come back from work.  
A. was washing                      B. washes                      C. wash                      D. were washing                      E. washed
19. .... I do well in may exams, this year, I shall slaughter a tock for celebration.  
A. but                      B. if                      C. unless                      D. .....                      E. even
20. Joan likes coffee ..... A. isn't she                      B. does she?                      C. don't she                      D. Doesn't she?
21. Every one of us ..... been invited for the sports Boraza.  
A. have                      B. has                      C. was                      D. were                      E. are
23. Sorry! Am ..... to lift this box. A. not strong enough  
B. strong                      C. weak enough                      D. so strong                      E. not weak enough
24. " Two plus four is equal to six" Our Mathematics teacher said. The indirect speech to this sentences should be .....  
A. Our Mathematic teacher said that two plus four was equals to six  
B. Our Mathematics teacher said that two plus four is equal to six  
C. Our Mathematics teaches said that two plus four can be equals to six  
D. Our Mathematics teacher said that two plus four will be equal to six  
E. Two plus four is equal to six, our mathematics teacher said.

25. This is the boy ..... father bought an aeroplane last year  
 A. who B. whose C. where D. which E. who
26. .... he had a lot of money, he didn't buy for us chocolate  
 A. If B. Unless C. With D. Although E. To
28. The meeting was ..... till Thursday next week.  
 A. called off B. put off C. put out D. called out E. stop
29. The hotter the sun the weaker he became. The bolded word has been used as .....  
 A. a noun B. a pronoun C. an adjective D. a verb E. an adverb
30. The passive voice to the following sentence should be. Will sweep the floor? .....  
 A. wont she sweep the floor B. will she be sweeping the floor C. will the floor be sweep by he? D. has the floor been sweep by her? E. will she sweep the floor?
31. A young one of a horse which is less than one year old is a .....  
 A. cluter B. dam C. foal D. pony E. stud
32. We should not call our friends stupid. synonym of the underlined word is .....  
 The A. smart B. intelligent C. foolish D. retarded E. intelligentest
33. Who are you .....at?  
 A. laughed B. laughs C. laughing D. laugh E. have laughed
34. The time keeper has ..... the bell earlier than expected.  
 A. rang B. rings C. ring D. ringing E. ring
35. Kelvin is the ..... of the two boys. A. Most intelligent B. intelligent C. more intelligent E. least intelligentest
36. Asha and Baraka used to ..... together during their childhood.  
 A. play B. playing C. plays D. played E. are playing
37. Most ..... to pray Sundays  
 A. had gone B. went C. go D. goes E. will go
38. tourists ..... to Zanzibar Eagle air tomorrow  
 A. fly B. flying C. flies D. have flied E. will fly
39. First five students ..... as they did well in their annual examination  
 A. are rewarded B. rewarded C. will be rewarded D. were rewarded E. was rewarding
40. Standard seven pupils..... in school since 2008.  
 A. will be B. have been C. were being D. has been E. had been
41. Neither Kimaro nor Temba ..... to school everyday.  
 A. gone B. went all C. go D. goes E. they are going

42. Aziza ..... go to school yesterday she was sick.  
A. didn't B. don't C. go D. went E. gone
43. Arsenal football club ..... the FA cup seven ago.  
A. will win B. win C. wined D. won E. wins
44. Standard four pupils ..... examination at the moment.  
A. were doing B. they did C. have done D. will do E. are doing
45. Pupils were going into their classrooms when it ..... to rain.  
A. was starting B. started C. starting D. starts E. will starts
46. The bus ..... got accident yesterday belongs force company.  
A. where B. whose C. D. which E. who
47. .... of her intelligence, Marry didn't pass the examinations.  
A. Although B. Despite C. Because D. Inspite E. Even if
48. .... Amina and Juma are pupils of Majengo Primary school.  
A. Not only B. All C. both D. Each E. either
49. Maimu has a workshop where he sells good ..... at a cheap prince.  
A. furniture B. furnicher C. funiture D. furnitures E. furnichers
50. We want to sell our cars. The singular form of this statement is .....  
A. she want to sell my car B. want to sell my cars C. he wants to sell his cars  
D. want to sell my car E. we want to sell all our
51. Is there ..... apple juice left? A. a B. few C. many D. any E. most [
52. Neither Halima ..... he sister passed the certificate of primary education examination.  
A. or B. nor C. neither D. as E. and
53. Farmers ..... maize next year.  
A. will grow B. have grown C. has grown D. were growing E. had grown
54. Is Mary ..... well in her studies these days? A. do B. does C. did D. done E. doing
55. Sometimes she ..... alone. A. go B. goes C. went D. have gone E. going
56. Have they ..... my text books. A. Stole B. stealing C. stolen D. steals E. stoled
57. The book ..... by Nyambari Nyagwine two years ago.  
A. had written B. wrote C. is write D. had written E. was written
58. The Mwenge Primary school pupils ..... the neighbourhood footballs match yesterday?  
A. win B. are winning C. we D. wins E. won
59. Last week her mother ..... school fees.  
A. paid B. were paying C. pays D. pay E. is paying
60. When Samson was in London he used to ..... English.  
A. spoke B. spoken C. speaks D. speak E. speaking



**61. Nyambui ..... Fast to win the**

- A. run B. runs C. ran D. rain E. was run
62. The number of accidents ..... increasing nowadays.  
A. are B. is C. will D. shall E. have
63. Was she ..... pass her examination?  
A. too B. to C. so that D. enough to E. so
64. A chameleon is ..... slow ..... snail . A. so ..... that  
B. as .....as C. too ..... to D. enough .....to E. either .....nor
65. will you give the crying baby ..... milk? Said mother  
A. a B. some C. an D. many E. any
66. The boy ..... heavily while he was running.  
A. breather B. breathed C. breath D. breathe E. breathing
68. To .....shall I have to write the letter?  
A. whom B. who C. whose D. that E. when
69. The ..... boy in the group is my brother.  
A. shorter B. short C. more short D. shortest E. more shortest
70. They will come ..... foot A. by B. with C. in D. on E. for
71. Mrs. Makala speaks either English ..... Kiswahili  
A. nor B. also C. and D. or E. neither
72. I was born .....1990. A. since B. by C. for D. at E. in
74. Will you ..... me a pen please?  
A. borrow B. lend C. take D. help E. assist
75. .... you are not clean, you will catch stain  
A. if B. unless C. while D. even E. although
76. ....she was tired she worked  
A. Although B. In spite of C. Despite of D. Despite E. Even
77. Rose bought a ..... of soap and 1kg if sugar.  
A. Bunch B. pile C. crows D. loaf E. bar
78. She injured herself ..... a knife. A. with B. by C. on D. and E. of
79. Middle ..... to the market now. A. Are going B. is going C. went D. going E. gone
80. Seven years ago, John ..... seven years old. A. is B. was C. were D. are E. be
81. They used to football in the afternoon. A. plays B. playing C. play D. played E. player
82. Did you ..... to the patient? A. Talks B. Talk C. talked D. talking E. is talk
83. .... she gone to visit her mother? A. have B. is C. was D. has E. are
84. Tina always ..... her clothes in the evening.  
A. wash B. washes C. washing D. washed E. are wash
85. She ..... uncle yesterday A. visit B. visits C. visited D. visiting E. is visiting
86. Standard four students will ..... football tomorrow  
A. play B. plays C. played D. are played E. playing



87. When I woke up the sun had already ..... A. Risen B. rise C. Rose D. Rises  
Rising
88. The woman have ..... since morning  
A. singing B. being singing C. be singing D. been singing E. been sing
89. Student ..... their books in the bags every morning  
A. carry B. carries C. were carry D. was carry  
E. is carry
90. We shall ..... National park ..... year.  
A. visiting B. visited C. visit D. visits E. has visit
91. does Miriamu ..... here equality. A. came B. come C. comes D. coming E. is coming
92. She will ..... teaching us English this time tomorrow.  
A. been B. be C. being D. whose E. has
93. They ..... teaching us English this time tomorrow.  
A. been B. have C. has D. being E. beings
94. They ..... finished their homework. A. has B. Have C. Are D. is E. were
95. .... Jane was sick she went to school. A. If B. Unless C. But D. Although E. Though
96. How ..... money do you have? A. much B. many C. some D. any E. a little

### COMPREHENSION AND SUMMARY

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

98 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.

99. Write a composition of about 100 words on the following topic. "The Place I Like to Visit".

100. Read the passage below carefully and then answer the questions that follow.

Many people think that eating food is simply something which is pleasant and necessary to satisfy hunger. They do not know that the great illness that they have is eating the wrong kinds of food. The reason behind this is the lack of knowledge on the functions of food in their bodies.

In some countries, e.g. Somalia, Ethiopia, Eritrea and Sudan there is much starvation and many people die each year because they eat insufficient food. In these counties the main cause of starvation is the low production of food. In East Africa, however, starvation and prolonged hunger are not as common as in other places as mentioned earlier because in most areas the climate and soil allow the production of enough food.

Food is necessary not only to satisfy hunger, but also to provide the body with certain nutrients to keep it healthy. Ill health due to poor diet is known as malnutrition. It is a

common disease to children under five years. In East Africa malnutrition is not caused by lack of food, but it is due to lack of knowledge in food usage. It is important for people to realize that malnutrition causes a great deal of illness and death. Moreover, apart from many people who are obviously ill, there are many thousands who are weak and their bodies poorly developed due to improper feeding. These people are likely to get diseases, e.g. tuberculosis, diarrhea and other infections and they do not recover quickly from those diseases.

However, the stakeholders like Home Economists should advise people on how best they can prepare diet and educate the community on food and nutrition. Also the Agricultural Officers may advise on the production of certain foods to serve the need.

### Questions

- (i) Many people in East africa eat unbalanced diet because
- A they are always starving                      B balanced diet is  
C they suffer from ill health                      D of lack of knowledge  
E they do not have alternative.
- (ii) The main difference between Somalia and East African countries is that
- A people in East Africa lack food while in Somalia they do not have knowledge  
B there are more people in Somalia than in East African countries  
C people in Somalia have food shortage while those in East Africa do not know the proper use of food  
D starvation and hunger is so common in East Africa than in Somalia  
E people in East Africa import food unlike Somalia.
- (iii) According to the passage, malnutrition means lack of
- A food in the human body                      B human food  
C the right kind of food in the body                      D enough food  
E Right preparation of food.
- (iv) Whom among the following are most affected by malnutrition?
- A Youths                      B Children                      C Elders                      D Nurses                      E Doctors.
- (v) According to the passage, the problem of malnutrition should be solved by using
- A home economics                      B doctors in the                      C teachers in  
D every parents                      E primary teachers.

### STRUCTURE

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

- (i) Betty \_\_\_\_\_ parents live in the countryside has been selected to join the University of Dar es Salaam.
- A who                      B whose                      C whom                      D which                      E what.
- (ii) She was \_\_\_\_\_ clever that she managed to attempt well all the question.
- A too                      B enough                      C to                      D so                      E as.
- (iii) Mashaka is as intelligent \_\_\_\_\_ Zena in the class.
- A as                      B than                      C more than                      D us                      E from.
- (iv) Please switch \_\_\_\_\_ your phone in the examination room.
- A of                      B on                      C off                      D in                      E out.
- (v) Samwel tried hard \_\_\_\_\_ he did not manage to get into the football team.

A but  
order.

B and

C so

D as

E in

## VOCABULARY

102. Fill in the blanks with the correct form of the verb. (i) They (visit) \_\_\_\_\_ Arusha last month. (ii) \_\_\_\_\_ Would you like (dance) with me.
- (iii) Our teacher (do not) \_\_\_\_\_ allow us to sing in class often. (iv) I feel like (change) \_\_\_\_\_ my hair style.
- (v) I (teach) \_\_\_\_\_ my children to swim at this moment.

## COMPREHENSION

103. Read the following passage carefully and answer the questions that follow.

Drugs are chemical substances that can change the way one thinks and works. People use drugs to change their feelings. The most abused drugs are *marijuana* or cocaine, heroin and alcohol. Drug abuse is common in almost all the developed and developing countries. Billions of dollars are spent internationally for preventing drug abuse, treating addicts and fighting drug related crimes.

Drug abuse causes multiple problems in countries and communities. Firstly, it causes medical and psychological problems. It is obvious that addicts cannot function as normal members of the society. They neglect or abuse their families and eventually they require expensive treatment or hospitalisation. In Tanzania, especially in urban areas, it is common to see teenagers who are not only weak but also sick. These young men and women are so aggressive and they constantly break the law. In addition, they are extremely violent as they easily get into physical fights. These Tanzanian addicts pose a vivid example of the medical and Psychological problems faced by the addicts all over the world.

The second problem caused by drug abuse is the increase of crimes. There are some crimes which are either drug influenced or drug related. These crimes are petty or organised ones. Drug addicts are likely to involve themselves into such petty crimes as robbery, burglary and theft. They do so because they want money to buy drugs and food. It is worth noting that most drug addicts are not employed. Drug dealers can also organise themselves into criminal gangs which get money from drugs. Police and legal resources are therefore needed to fight crime related to drugs or the crimes influenced by drugs.

However, the threat of drugs can be fought successfully if some strategies are employed. Education on drug abuse is the first way of combating the problem. People, especially children, need to be educated at home or in school about drugs. People need to be aware of drugs so that they can avoid using them. Also, families and counsellors need to talk to children and people at risk. Parents need to take care of their children and help them to become responsible citizens. Moreover, jobs need to be created to give people sources of steady income. However, effective laws should be enacted so that the criminals can be caught and taken to the court.

Although the problem of drug abuse may seem impossible to eliminate easily, there are concrete strategies that can be taken to weaken drug dealing in the society. The danger of drugs is too great to ignore.

### Questions

- (a) Answer the following questions with reference to the passage.
- Where in Tanzania is drug abuse mostly practised?
  - Who is a drug addict?
  - Why are drug addicts involved in crimes?
  - Explain the meaning of the expression, "Multiple problems."
  - Give three ways of eliminating drug abuse
- (b) For each of the following statements, write **TRUE** if the statement is correct or **FALSE** if the statement is not correct.
- Countries spend a lot of money to fight drug abuse.
  - Drug addicts are very polite.
  - Parents have roles to play in combating drug abuse.
  - USually people who use drugs do not break the law.
  - The problem of drug abuse is so big that we cannot solve it.

104. Read the following passage then write five descriptive words used in the passage.

Wind is air in motion. The chief cause of winds is the difference in the pressure of the air. Heated air near the earth's surface, being light, rises into the higher regions while cold air from the surrounding regions moves into this low pressure area to equalise the pressure of the atmosphere. This movement of the air is called wind. Winds blow from areas of high pressure to areas of low pressure. Winds are named by the direction from which they blow, but the deflection of the winds is due to the rotation of the earth. Winds are deflected to the right in the Northern Hemisphere, and to the left in the Southern Hemisphere.

### LANGUAGE USE

105. Match the expressions in **Column A** with their meanings in **Column B** by writing the correct letter in **Column B** below the corresponding expression number in **Column A** in the table provided. Item (vi) has been provided as an example.

| Column A   | Column B      |
|--|---------------|
| (i) A place where dead bodies are kept until buried  | A Pharmacy    |
| (ii) A room in a hospital where babies are born.     | B Ward        |
| (iii) A place where medicines are prepared and sold. | C Stadium     |
| (iv) A room in which sick people get bed rest.       | D Laboratory  |
| (v) A place where sick people are treated.           | E Mortuary    |
| (vi) A room which is used for health check up.       | F Labour ward |
|  | G Hospital    |
|  | H Kitchen     |
|  | I Laundry     |

106. Re-arrange the following sentences into a logical sequence to make a meaningful paragraph.

Sentence number 6 has been done as an example. A. The two have six children.

B. Jumbe has a wife whose name is Makwabe.

C. So, Jumbe and Makwabe are my grandparents. D. Who is thus my grandfather is called Jumbe.

E. My mother's father.

F. Including my mother.

107. Imagine you are Mr. and Mrs. Kihongo Mwindu of P.O. Box 30054, Kibaha, with telephone number 0770000111. Your son, Kingwendu, is getting married to Bebe on Saturday, 30<sup>th</sup> August,

2019 at Kibaha Resident Magistrate's Office. The marriage service will start at 4:00 p.m. and will be followed by a celebration party to congratulate the bride and the groom at Tanita Hotel, starting at 8:00 pm. Write a formal invitation card to Mr. and Mrs. Ngege Kaule for the wedding. Use the following guidelines in writing your card.

(a) The name of the

sender. (b) The

name of the receiver. (c)

The purpose of the card.

(d) The date and time of the event.

(e) Address the receiver should write to if they will not attend.

108 Fill in the blanks with the correct prepositions from the box.

**[of, at, into, in, from, over]**

(a) I must study ..... the weekend.

(b) My Aunt works ..... the Airport.

(c) You are different ..... your sister.

(d) We tried very hard but we did not get rid ..... it.

(e) You will get ..... trouble, unless you stop going there.

109. (a) Answer item (i) - (v) by writing the correct name of the baby animals indicated in the

table

**[kid cub tadpole calf duckling]**

(i) Cow

(ii) Lion

(iii) Duck

(iv) Goat

(v) Frog

(b) Re-write the following sentences by changing the underlined verbs into simple past form.

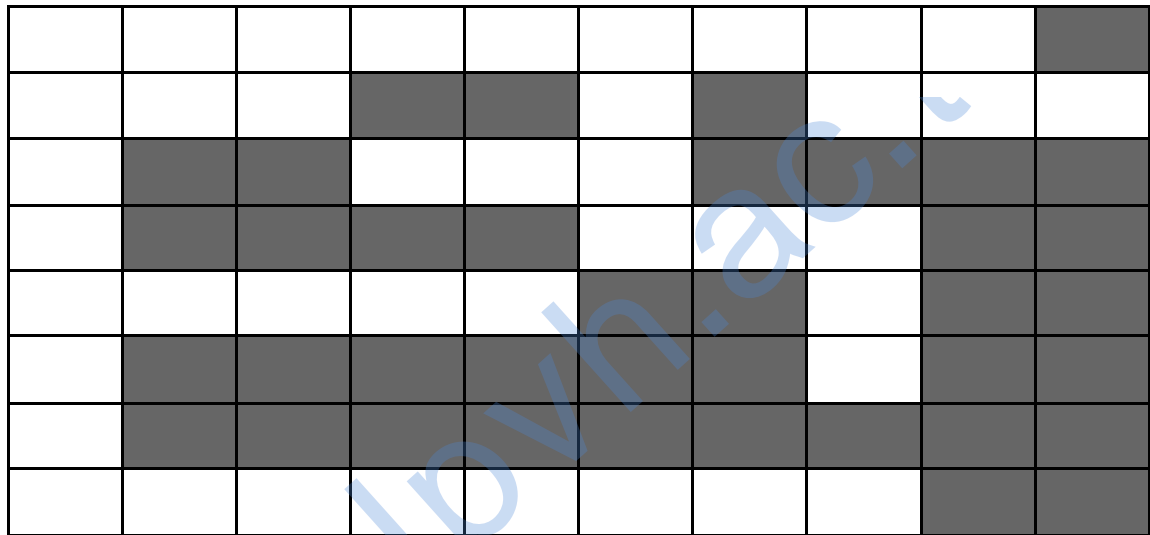
- (i) I enjoy playing football.  
 (ii) You steal my pencils  
 (iii) Aisha builds houses in town.  
 (iv) They do a great job.  
 (v) This dog cuts its tail.
110. (a) Change the following sentences into negative form.  
 (i) I work very hard.  
 (ii) Aisha loves Mr. Salim  
 (iii) We saw the boy whose mother is our English subject teacher.  
 (iv) Do you understand?  
 (v) I have been around for a while.
111. Re-write the following sentences by changing the verbs in the brackets into their correct forms.  
 (i) Wild animals (live) ..... in forests.  
 (ii) Pregnant women are not (allow) ..... to drink alcohol.  
 (iii) Jane will be (visit) ..... you.  
 (iv) I'm (do) ..... this for you.  
 (v) Jamila got (divorce) .....
112. Re-write the following sentences by changing the bolded words into their opposites.  
 Example: The **boy** was very shy.  
 The girl was very shy.  
 (i) The **king** was polite.  
 (ii) My **aunt** brought me a present. (iii) I wanted to see a **lion**.  
 (iv) Yesterday I saw a very **long** pencil. (v) These books are **light**
113. Underline the word which does not fit in the following groups of words:  
 (i) Actress, lawyer, accountant, musician, niece  
 (ii) Spoon, plate, apron, bowl, fork  
 (iii) Chair, iron sheet, table, cupboard, bed  
 (iv) Wall, pencil, book, pen, paper  
 (vi) Trousers, bed sheet, shirt, shorts, dress
114. Re-write the following sentences according to the instruction given after each. (i)  
 He got the job. He had no qualifications. (Join using: "in spite of")  
 (ii) He shouted very loudly. He woke the baby up. (Join using: "so ..... that")  
 (iii) You must work hard in order to pass your examination. (Begin with: "If .....")  
 (iv) He went to the bus station in a hurry. He wanted to be on time. (Join using: "in order to")  
 (v) If you won't show me your identity card, I won't give you the details. (Re-write using: "Unless")
115. Complete the following sentences using the words in the box below. The same word may be used more than once.  
 (i) He came \_\_\_\_\_ foot.  
 (ii) The patient died \_\_\_\_\_ yellow fever.  
 (iii) We are tired \_\_\_\_\_ eating ugali everyday.

- (iv) He has been in Nairobi \_\_\_\_\_ three days. (v) My father died 2007.  
 (vi) I travelled \_\_\_\_\_ air.  
 (vii) Small as he was, he killed a thief \_\_\_\_\_ a knife. (viii) There is someone \_\_\_\_\_ door.  
 (ix) We are going \_\_\_\_\_ start our mock examination.  
 (x) We saw Chinua Achebe's funeral \_\_\_\_\_ television.

for, by, on, of, in, at, to, with.

116. Complete the following puzzle using the clues given below.

Number **1** (down) has been done to guide you.



### ACROSS

1. What we get at school
4. The past tense of "lead"
5. The present moment
6. A number
7. We use it to open the door
9. A structure we live in
10. A country in Africa.

### DOWN

1. The biggest land animal
2. The past tense of "take"
3. The opposite of "Yes"
8. The second person singular/plural



**Change all feminines into corresponding masculines**

**Example.** The woman is carrying her child.

The man is  
carring his child

117. Her sister is in a hospital.
118. She is my aunt.
119. The princess was blessed by the nun
120. "No madam. I did not take her money". Said the girl.
121. Was a cow killed by a lioness?

**Re – write these sentences by using the given adverbs**

**Example:** He has finished the  
work (already) He has  
already finished the  
work

122. He comes to my house seldom (hardly)
123. I don't go to his house (never)
124. We went to the airport two times. (twice)
126. She is weak to lift this parcel. (too)
126. Have you gone there? (ever)

**Insert the correct preposition in the following.**

127. We should not rely .....somebody.
128. His uncle died.....lung – cancer.
- 129 Why are you so jealous.....your cousin – brother?
130. I don't like to part.....my story – book.
131. The man was guilty.....his lying.
132. The dog jumped.....the swimming pool.
133. He was meddling.....my bicycle.
134. Haven't you my regard.....teachers?
135. Our teacher was angry.....Robert.
136. Will you please fill this jug.....milk?

**Re write these sentences after adding question tags.**

- 137 The boy doesn't take medicine
138. I am late for school
139. He wants to come with me

140. We haven't done anything now  
149. We should not tell him anything.

**Give synonyms for the following.**

150. Astonish  
151. Residence  
151. Stubborn  
152. Glace  
160. Robust

161. Choose **one** class reader you have read in form one or two, then answer the following questions:

|                                      |   |
|--------------------------------------|---|
| <b>The Magic Garden</b>              | K.R. Cripwell (1977), William Collins Sons and Company Ltd., Great Britain. |
| <b>Kalulu the Hare</b>               | - F. Worthington (1937), Longman, England.                                  |
| <b>Hawa the Bus Driver</b><br>Salaam | - R.S. Mabala (1988), Ben & Company, Dar es Salaam                          |
| <b>Fast Money</b>                    | K.R. Cripwell (1978), William Collins Sons and Company Ltd., Great Britain. |
| <b>Mabala the Farmer</b><br>Salaam.  | - R.S. Mabala (1988), Ben & Company, Dar es Salaam.                         |

- (a) (i) What is the title of the book?  
(ii) Who wrote the book?
- (b) What is the negative side of the main character?
- (c) Briefly write what the story is about.
- (d) According to how the story ended, what would you advise the main character?
- (e) What do you learn from the story?

162 Read the following poem then answer the questions that follow.

Hawa, oh Hawa  
The lioness who defeated the bull,  
  
Oh, my  
friends  
When I  
saw the

bull That  
big red bull

Roaring and running towards me  
I began to sweat  
I began to tremble  
I began to cry  
I knew we were finished

Hawa, oh Hawa  
The lioness who defeated the bull.

Oh, my friends  
That bull was running  
so fast It was eating  
the ground Suddenly,  
out jumped the lioness  
Jumped on the bull

She held it with her legs  
She held it with her arms  
She held it with all her strength  
Until the bull could run no more.

Hawa, oh Hawa  
The lioness who defeated the bull.

### Questions

- (a) Which wild animal is Hawa compared to?
  - (b) What is the general mood of the poem?
  - (c) What makes the poet call Hawa a lioness? Briefly explain.
  - (d) Identify a set of words mostly repeated in the second stanza and give a reason for such repetition.
  - (e) Is this poem relevant to your society? Give a reason.
163. Select one male character from one of the class read in Form one or two and describe him.
- (i) Mention the name of the character.
  - (ii) In what reader does he appear?
  - (iii) What did he do in the story?
  - (iv) Give two reasons why you like or dislike him
164. Read the following poem and then answer the questions which follow.
- When the cock crows  
The lazy man smacks his lips and says  
So it is day light again, is it?  
And before he turns over heavily
- The farmer has reached the farm  
The water carriers have arrived at the river  
The spinners are spinning their cotton

And the tailor is working on his cloth.

### QUESTIONS

- i. What time of the day is it in the poem?
  - ii. Where do you think the lazy man is?
  - iii. How does the lazy man feel about the time of the day in the poem?
  - iv. Why do you think he feels the way he does in?
  - v. Suggest a suitable title for the poem.
165. Re arrange the following sentences so as to make a logical paragraph by lettering them
- i. After that he starts his journey to school.
  - ii. He then bathes, dresses and says his prayers before taking breakfast.
  - iii. When he reaches there he begins his lesson in class.
  - iv. Everyday Musa wakes up at 4:00 am in the morning.
166. Arrange the sentences so as to make a good composition by giving them letters A-D.
- i. I quickly have breakfast.
  - ii. I wake up early in the morning at 06:00am.
  - iii. I run to school ready for class.
  - iv. I then brush my teeth and wash my face.

## KISWAHILI

### UFAHAMU

Soma Kwa makini habari ifuatayo kasha jibu maswali.

Vijana hawa waliishi kwa amani kwa muda wa siku nyingi. Baada ya muda kupita yule mke akapata mimba. Haya yakawafurahisha sana kwani hawajapata kuonja kuzaa. Mimba ikalelewa kwa kila tunu na tamasha. Bwana akiamzawadia mkewe kwa kila kitu kilichotamaniwa na kisichotamaniwa Mimba ilikuwa na kuengwaengwa mpaka sku zikatimia. Siku hizo bibi huyo alikuwa hapitwi na mtu aliyechukua moto, asije akakatwa uzazi. Miiko hii inaondoka na kusahaulika kabisa sasa.

Tumbo lilionesha kuwa ni kubwa na watu wengi wakihoia Yule mwanamke asije akazaa pacha. Majirani na mahasibu walipokuwa wakija kumtazama nao wakimwonea huruma na kumwomba dua, kwa kumwambia maneno kama haya "Insallah Rabuka atakuvua hili na jingine tena, utazaa kilicho hai mwana tulee, mji tuzike" Basi yeye huitikia "Amina".

Siku ziliposonga, bwana alianza kuokota zana zote zitakazohitajiwa katika uzazi. Alinunua legeni, birika, sufuria, samawari, seredani, taa, nguo, mika, nyungu, majamanda, muri, sandari, na vingi vinginevyo, alimradi hajasaza.

Uchungu ulipofika wakunga waliitwa, wengine maulidi, wengine wakileta mjiiradi na wamsidia mzazi kuugua. Bwana mwenyenyeumba alikuwa kafadhaika na kubabaika hajijui, hajitambui, kwa fikra na mawazo. Uso wake alikuwa umesharabu wekundu, pua na macho yamemwiva kwa kulia. Watu walimpoza na kumpa maneno mema ya utulivu kila wakati alikuwa akitoa kichupa chake cha ugoro akivuta na kupumzisha akili yake. Wakati mwingine alitoa ufuraha uliokuwa na mnoga

na kuuvuta. Nje kulikuwa hakumweki. Hata ndani hakuwezi. Kwa kusikia mngurumo wa mkewe wa kutaka kujifungua.

Alipofika barazani kwa jirani akapumua, huko kwake mkewe alijifungua watoto wawili kama alivyodhaniwa. Watoto hawa wote walikkuwa mabinti.

Kelele za watoto ziliposikizana, huyu bwana alipiga mbio kiatu mguu mmoja, kofia mkononi anakimbilia nyumbani kwake. Alipofika alikuta bado mambo hayakwisha vizuri. Alingoja macho pima, mpaka watoto walipokogeshwa, hapo tena aliitwa ndani. Alikumbatiana na mkewe akalizana vilio vya furaha na shukrani.

## MASWALI.

1. Vijana wawili walifurahishwa sana
  - A. Kuona mwanamwali alivyopambwa.
  - B. Na kushika kwa mimba ya kifungua mimba.
  - C. Maana waliishi kwa fahari wakiwatumia maskini kama viraka vibovu vya nguo.
2. Mama mjamzito alitunukiwa
  - A. Kila tunu na tamasha
  - B. Aina kwa aina za zawadi.
  - C. Vitu mbali mbali vya thamani.
3. Uzazi wa pacha ulihofiwa na
  - A. Umma
  - B. Masahibu na majirani wate waliomuona
  - C. Shemejize waliojizungumzia.
4. Kupiga mbio kw baba watoto kunaonesha
  - A. Kughafilika kwake kwa kizazi kiovu.
  - B. Mshangao wake wake kusikia sauti ya watoto
  - C. Shauku, furaha na wasiwasi aliokuwa nao wakati wote.
5. Mwandishi anasema kuwa wakati wa uchungu
  - A. Nyumba ilijazwa na wakunga walioshughulika kumsaidia mumewe
  - B. Watu walijaa nyumbani wakimfariji mama
  - C. Wakunga na wahisani walijaa nyumbani wakimwomba mama fanaka.
6. Uso wa bwana mwenye nyumba ulikuwa umesharabu wekundu kwasababu:
  - A. Alikuwa akihofia hatima ya tumbo kubwa la mkewe.
  - B. Kurani na maulidi vilikuwa vitu vyenye ajizi kwake.
  - C. Ya ugoro aliokuwa akivuta ili kumpumzisha akili.
7. Baba alikuwa anavuta ufuraha wa mnoga ili.
  - A. Kujiliwaza na kujibumbaza juu ya wasiwasi aliokuwa nao.
  - B. Kustarehesha kaumu ya watu waliokuwepo
  - C. Ili kurahisisha kazi ya wakunga.
8. Walikumbatiana na mkewe na kulizana kwa faraja
  - A. Mara baada ya nyiradi na maulidi kuhitimishwa
  - B. Mara baada ya ada za wastoto kukamilishwa
  - C. Mara tu alipomaliza kuvuta kichupa cha ugoro.
9. Andika maana ya maneno yafuatayo.
  - A. Kushika mimba
  - B. Kuengwa engwa
  - C. Kufadhaika
  - D. Miko
  - E. Macho yamemwiva
- 10.

- a) Pendekeza kichwa cha habari hii.
- b) Kamilisha methali zifuatazo.
  - i. Chanda chema
  - ii. Usitukane wakunga
  - iii. Jambo usilolijua
  - iv. Mchelea mwana .....
  - v. Mgaagaa na upwa.....

### B. SARUFI NA MATUMIZI YA LUGHA

11. Nyumbua maneno yafuatayo ili kuunda maneno mengine yasiyopungua matano kwa kila neno
  - (i) Tembea
  - (ii) Cheka
  - (iii) Furahi
  - (iv) Palilia
  - (v) Peleka
12. Taja tofauti iliyopo kati ya mofimu huuru na mofimu tegemezi
13. Changanua maneno yafuatayo uoneshe viambishi awali, viambishi tamati na mzizi/kiini cha kila neno huku ukitaja dhima/kazi ya kila kiambishi.
  - (i) Aliyepotea
  - (ii) Mahangaiko
  - (iii) Alinunua
  - (iv) Anatetemeka
  - (v) Watatushinda
14. taja dhima nne tu za mnyambuliko, huku ukitoa mifano.
15. unda kauli tendesha kutokana na maneno yafuatayo
  - i. Kula
  - ii. Vaa
  - iii. Ona
  - iv. Poza
  - v. Fia
16. rejesta zina dhima mbalimbali katika jamii. Zitaje dhima tano tu za rejesta.
17. Zichunguze sentensi zifuatazo kasha utaje aina ya rejesta husika kwa kila sentensi.
  - (i) Nani wali ng'ombe
  - (ii) Koplo mweke ndani haraka
  - (iii) Tunajifunza uambishaji wa aina za maneno
  - (iv) Inj 2 x 3
  - (v) Mtuhumiwa amehukumiwa kifungo cha miaka mitatu jela
18. Eleza maana ya istilahi zifuatazo na utoe mfano
  - (i) Misimu
  - (ii) Rejesta
  - (iii) Utata
  - (iv) Mnyambuliko
  - (v) Uambishaji
19. Utata unaweza kujitokeza katika neno ama sentensi kutokana na sababu mbalimbali. Taja sababu tano tu za kutokea kwa utata.
20. Tungo zifuatazoni tata, eleza maana mbili kwa kila tungo.
  - (i) Wizi wa silaha umeongezeka
  - (ii) Hawa amepigwa na John.
  - (iii) Kwetu kuna ua
  - (iv) Mtoto amelalia uji.

21. Eleza dhima tano tu za misimu katika lugha ya Kiswahili
22. Andika barua kwa mkuu wa shule ya sekondari Mpanda S.L.P 300 Mpanda mjini ukiomba nafasi ya kuhamia katika shule yake., jina lako ni Riziki Funga kazi wa shule ya sekondari Dodoma
23. Andika dayalojia kati ya mwalimu na mwanafunzi kuhusu utoro: zinghatia sababu za utoro, ,hasara zitokanazo na utoro pamoja na ushauri dhidi ya tabia ya utoro.
24. Andika kadi ya mwaliko kwa rafiki yako Rose Chacha ukimwalika afike kwenye sherehe yako ya kumbukizi ya kuzaliwa kwako, itakayofanyika tarehe 6/5/2020 saa 10 jioni nyumbani kwenu. Tumia jina lako.

### FASIHI

25. Uhifadhi wa kazi za fasihi kufanyika kupitia njia mbalimbali zitaje, kasha chagua njia mbili tu na uzijadili kuhusu ubora na udhaifu wake.
26. Andika shairi la kimapokeo lenye beti mbili tu kuhusu umuhimu wa elimu. Angalizo; usichukue mashairi yaliyopo katika vitabu vya maandishi wengine.

27. Soma kwa makini igizo hili kasha ujibu maswali yanayofuata:

**Pazi:** *shikamoo*

**Tweve:** *Oh! Marhaba bwana, habari za kisomo?*

**Mama Pazi:** *basi huyo msomi wako katuletea viroja lea (akionesha kijitabu). Kitabu hiki kimejaa matusi . mimi nashindwa kuelewa walimu, sijui madaktari. Katurundikia matusi shemeji.....*

**Tweve:** *Aa, (anakisoma) jiahadhari na UKMWI kwani kaletaje huyu motto?*

**Baba Pazi:** *Aha! Ni hivi; Pazi huko shuleni kwao walikuja waganga kueleza huu ugonjwa na kuwapa vitabu hivi. Yeye Pazi katuletea tusome.....*

**Mama Pazi;** *Katuletea matusi huyu mana*

**Sauti kutoka nje:** *Hodi! Hodi! Shoga nipe dawa ya jiko mie.*

**Mama Pazi:** *Nawe mama Wini hata hatujaona uso wako? Karibu ndai shoga (anaingia taratibu)*

**Tweve:** *Jamani Nitakuwa Yule mwomba jamvi maana nimewahi kuja lakini mwezangu kuwahi kusema. Baba Pazi kesho saa kumi ndio ule mkutano wetu wa ulinzi uje bwana.*

**Baba Pazi:** *ahaa! Sawa nitakuja. (kivuko anapangavikombo vya chai mezani)*

**Mama wini:** *hamjambo wanangu?*

**Pazi na Kivuko:** *hatujambo shikamoo mama*

**Mama Wini:** *Marhaba! Sasa shoga hiyo dawa ya jiko himahima maana nimeishiwa bwana wee.*

### Maswali.

- i. Mwandishi wa igizo hili ametumia muundo gani?
- ii. Mtindo uliotumika katika igizo hili ni wa namna gani?
- iii. Taja wahusika waliojitokeza katika igizo hili .
- iv. Fafanua lugha iliyotumiwa na mwandishi wa igizo hili.
- v. Taja mandhari ya igizo hili
- vi. Dhamira kuu ya igizo hili ni ipi/zipi?
- vii. Je? Kuna mgogoro uliobainika katika igizo hili? Kama upo eleza mgogoro huo ni baina ya nani.
- viii. Ni ipi falsafa na msimamo wa mwandishi wa igizo hili?
- ix. Taja mafunzo/maadili tunayo yapata kutokana na igizo hili.

Nakutakieni kila lakheri.

# GEOGRAPHY

1. Mention five (5) ways of locating places on a map
2. Name three methods used to measure distance of linear features on a map
3. Distinguish the following terms
  - (i) Solar system and solar energy
  - (ii) Map and Scale of a map
4. Giving one example for each name three ways of expressing scale of a map
5. Give five (5) characteristics of a good map
6. The temperature of Pwani which is 0 metres above sea level is 20°C. What is approximate temperature for a place 3000 metres above sea level
7. List the continents which were found in Southern Landmass
8. List four types of mountain
9. Mention two (2) warm currents which you know
10. Write down three main types of Rainfall
11. Write down five uses of Solar energy
12. Distinguish between the following
  - (a) Land breeze and Sea breeze
  - (b) Solar eclipse and Lunar eclipse
13. Describe the shape of the earth.
14. Give three proofs that the earth is spherical.
15. Define the following geographical terms.
  - (a) Longitude.
  - (b) Latitude.
  - (c) Shifting cultivation.
  - (d) Bush following.
  - (e) Nomadic pastoralism.
16. Differentiate between.
  - (a) Tributaries and Distributaries.
  - (b) Tides and waves.
17. Define the terms Scale.
18. Convert the following R. F scales into statement scale.
  - (i) 1:450,000.
  - (ii) 1:200,00.
19. Describe the characteristics of large scale agriculture.
20. Mention five (5) cash crops grown in Tanzania and their respective regions.
21. Describe five major types of human activities.
22. Give five necessary requirements for the location of any Industry.
23. Define the earth.
24. Give the evidences of the earth's shape.
25. Explain the importance of studying Geography.
26. List down three major sources of rivers
27. Mention two (2) major relief features of the earth surface
28. Mention two (2) types of ocean currents and provide relevant examples for each type.
29. Give two examples of ocean deeps or trenches.
30. Mention the seven (7) continents on Earth.
31. List down (3) uses of water to human life
32. Mention the factors that cause variation in rainfall
33. Show the effects of rainfall
34. Show the role of pressure to human life



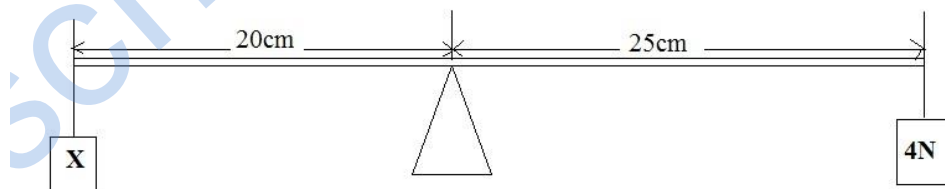
35. How is weather forecasting useful to people?
36. What do you understand by the following?
37. List the factors that affect the temperature of a place.
38. Mention other names for the tropical cyclones according to various countries.
39. List the twelve climatic regions of the world.
40. What is the difference between mist and fog?
41. Mention essential elements that a map should have.
42. What is the value of a map?
43. Show the ways of expressing a scale of a map.
44. What are the uses of a scale?
45. Draw a diagram to show the sixteen cardinal points of a compass
46. Mention and explain three types of scale according to size.
47. Mention the three kinds of north that are indicated on a map.
48. What is the importance of symbols and signs on a map?
49. Mention the movements of the earth?
50. What are the effects of earth's rotation?
51. Why don't we feel the rotation of the earth?
52. Give four evidences to prove that the earth rotates.
53. Show the results of the earth's revolution and the inclination of the earth's axis.
54. What is the speed of earth's revolution per second?
55. What do you understand by the following?
  - (i) Time zone
  - (ii) Local Mean Time
  - (iii) Standard Time
  - (iv) Greenwich Mean Time (GMT)
  - (v) International Date Line
56. How long does it take for the earth to rotate through  $1^\circ$ ?
57. Show the procedure for finding time for a particular place by using the given time and longitude of another place.
58. Find the time for Songambele village ( $20^\circ\text{W}$ ) when it is 5:00 pm at Kasokola village ( $50^\circ\text{E}$ ).
59. Find the time for Katumba village ( $20^\circ\text{W}$ ) when it is 12.00 at Urwira village ( $10^\circ\text{E}$ )
60. Show the procedure for finding the longitude of A, by using the given time and longitude of place B.
61. Draw and explain the internal structure of the earth
62. Mention the layers of the atmosphere
63. Describe the thickness of each layer in the atmosphere
64. Why does the temperature in the stratosphere increase with altitude?
65. Describe the temperature changes in each layer of the atmosphere.
66. Mention the boundaries between the four layers of the atmosphere.
67. Explain the special characteristics of the troposphere.
68. Mention the layer where there is high concentration of ozone in the atmosphere.
69. Why is the ozone layer important in the atmosphere?
70. Identify the factors that control the salinity (saltiness) of the sea or ocean.
71. Explain the temperature changes in the ocean water.
72. Why is the ocean water constantly in motion?
73. List down the continents according to the size, starting with the largest.
74. Mention and explain the relief features of the earth's surface.
75. With examples, explain the formation of Fold Mountains, Block Mountains, volcanic mountains and residual mountains.
76. What factors influence the movement of ocean currents?
77. Outline the uses of water to human life?

78. What proportion of the earth's surface does the land surface occupy?
79. What proportion of the earth's surface does the water surface (hydrosphere) occupy?
80. How is the ocean important to man?
81. Mention and explain the major features of the ocean floor.
82. Show the difference between weather and climate.
83. Explain the Stevenson Screen.
84. Mention the instruments that are found at the weather station.
85. Mention the instruments used to measure.
  - (a) Humidity
  - (b) Temperature
  - (c) Wind direction
86. Mention and explain three types of rainfall.
87. List the stages in the rain formation process.
88. Define the following terms:
  - (i) Latitude (ii) Longitude (iii) Great Circles (iv) Time Zone (v) Eclipse (vi) Geography
89. List any three (3) professions that have Geography basis.
90. What the largest planet and Solar system?
91. Arrange all the planet according to their respective distances from the sun.
92. Explain how solar energy can contribute in women emancipation in Tanzania.
93. What do you understand by the term human activities?
94. Mention and describe five types of human activities.
95. What do you understand by the term small scale agriculture.
96. Mention characteristics of small – scale farming system.
97. What are the advantage and disadvantage of small scale farming system.
98. Describe the characteristics of large scale of agriculture system.
99. What are the problems facing cash crop production in East Africa?
100. Mention of characteristics and advantages of sedentary livestock farming.
101. What are the causes of land conflict in Africa?
102. Outline characteristics of nomadic pastoralism.
103. What are the drawback of large scale farming in Tanzania?
104. Outline the importance of growing cash crops in our country.
105. What are the effect of water pollution?
106. What is the importance of tourism in any country?
107. Mention the factors of influencing the location of industries.
108. What the economic importance of water.
109. Outline the importance of hydroelectric power in Africa.
110. Mention the problems caused by sedentary livestock farming.
111. What is the economic importance of mountain.
112. Differentiate between weather and Climate.
113. Why the international Date Line is zig –zag at certain place?
114. Mention the characteristics of great circle.
115. List the continents which were found in the southern landmass.
116. List down the ways used to measure irregular areas on map.
117. What is the compass direction of 135° bearing?
118. What the compass bearing is given to North East (NE) compass direction?

# PHYSICS

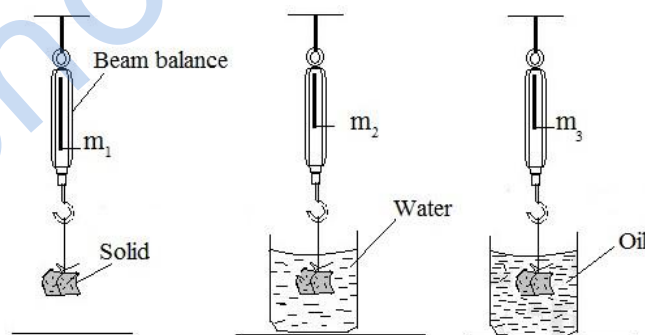
- A. For each of the items (1) - (40), choose the correct answer from the given alternatives and write its letter in the box provided.
1. Why Physics, Chemistry and Biology are natural science subjects?  
 A They need practical and theory work for learning. B They need only theory for learning.  
 C They need practical work only. D They need only observation.
  2. Which of the following is a safety precaution in the Physics laboratory?  
 A Doing experiment in the laboratory  
 B Handling of apparatus in the laboratory  
 C Use equipment with care in the laboratory  
 D Do anything in the laboratory
  3. Which instrument will you use to measure accurately the inside diameter of a bottle neck?  
 A tape measure. B micrometer screw gauge.  
 C metre rule. D Vernier calipers.
  4. Which of the following statements is correct about mass?  
 A It is measured by beam balance B It is measured by spring balance C It varies with place  
 D It can be zero.
  5. A hydrometer is an instrument used to measure  
 A the volume of liquids. B the density of liquids. C the density of solids. D the volume of solids.

6. When a body of mass  $M$ , is lifted through a height  $h$ , it possesses the energy known as  
 A kinetic energy. B chemical energy. C light energy. D potential energy.
7. If the angle between two plane mirrors is  $60^\circ$ , what will be the number of images?  
 A 2 B 3 C 4 D 5
8. The presence of charge in a material can be demonstrated by  
 A electrophorus. B earth wire. C gold leaf. D electroscope.
9. A current of  $0.2\text{ A}$  flows through a resistor of  $4\Omega$ . The potential difference across a resistor is  
 A  $20\text{ V}$  B  $0.8\text{ V}$  C  $0.05\text{ V}$  D 8
10. The process of removing magnetism from a material is known as  
 A polarization. B demagnetization. C magnetization. D magnetizing.
11. How can a real image be distinguished from a virtual image?  
 A Real image is inverted while virtual image is upright  
 B Real image is upright while virtual image is inverted  
 C Virtual image is formed by a convergent rays while real image is formed by divergent rays  
 D Real image is formed by a convergent rays while virtual image is by divergent rays
12. Why an atom is electrically neutral?  
 A It consists of equal number of electrons  
 B It consists of equal number of protons and electrons C  
 It consists of equal number of electrons and neutrons D  
 It consists of equal number of protons and neutrons
13. A potential difference of  $12\text{V}$  is applied across a resistor of resistance  $24\Omega$ . The current in a circuit is  
 A  $0.5\text{ A}$  B  $2\text{ A}$  C  $0.5\Omega$  D  $288\Omega$
14. If a North pole is used in the stroking method of magnetization, the end where the stroking begins is  
 A South pole. B North pole. C West. D East.
15. Figure below shows a ruler balanced by placing the loads at its ends. What is the weight of X?



- A 5N B 0.5N C 100N D 200N
16. Which of the following is an example of a third class lever?  
 A Scissors B Fishing pole  
 C Pliers D Nut cracker
17. Distance between two moving objects will change if

- A both are moving with the same velocity.  
 B both have the same acceleration.  
 C both have different acceleration.  
 D both have no acceleration
18. Which of the following best illustrates Newton's third law?  
 A Inertia B Momentum C Rocket propulsion D Circular motion
19. The temperature of a body of  $-40^{\circ}\text{C}$  in Kelvin (K) scale is  
 A 313 K B 233 K C 272 K D  $-40\text{ K}$
20. Which of these resources of energy is non-renewable?  
 A Wave energy B Biofuels C Radiant energy D Fossil fuel
21. Which of the following apparatus is most used to measure the mass of small sample in the laboratory?  
 A. Spring balance B. Beam balance C. Thermometer D. Stopwatch
22. .... is the small instrument used to measure the length of small objects like diameter of a wire.  
 A. Vernier caliper B. Micrometer screw gauge C. Metre rule D. Tape measure
23. Akili stands on the scale. The scale read 54kg. What is the mass of Akili in gram?  
 A. 54g B. 54000kg C. 54000g D. 0.054g
24. One of the following is not fundamental forces.  
 A. Gravitational B. Electromagnetic C. Nuclear force D. Friction
25. A student is told to measure out exactly  $25\text{cm}^3$  of water. Which of the following apparatus is the best for this measurement?  
 A.  $100\text{cm}^3$  measuring cylinder B.  $100\text{cm}^3$  beaker C.  $25\text{cm}^3$  pipette D.  $50\text{cm}^3$  burette
26. The following are the set of fundamental physical quantities except;-  
 A. Length, mass and relative density C. Electric current, length and mass  
 B. Mass, time and temperature D. Temperature, time and mass
27. The diagram below shows series of experiments performed by a form one student to determine the relative density of the oil. Three reading of the beam balance were obtained.



The relative density of the oil is given by; .....

28. Which of the following is applied to returning the object to its former state;-

- A. Torsion      B. Viscosity      C. Repulsion      D. Compression

29. Potential and Kinetic energies are similar in that

- A. Both produce energy  
B. Both are measured in watts  
C. One is the substitute of the other  
D. Both are forms of mechanical energy  
E. Both depend on the position.

30. A materials which allow light to pass through it but one cannot see through them

- A. Transparent      B. Oblique      C. Opaque      D. Colorless      E. Translucent

31. A Litre of milk is equal to:-

- A.  $500\text{cm}^3$       B.  $1000\text{m}^3$       C.  $1000\text{cm}^3$   
D.  $1\text{m}^3$       E.  $0.001\text{m}^3$

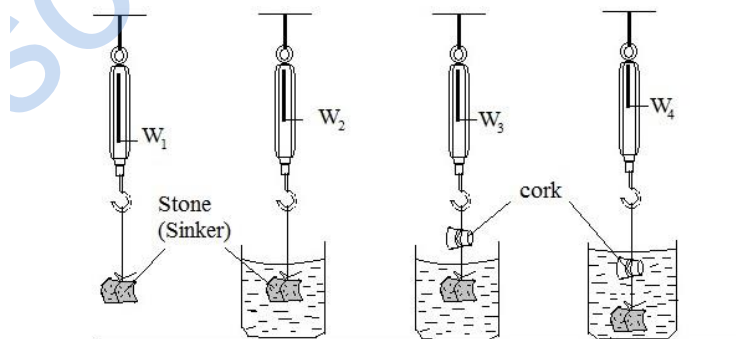
32. The following are fundamental physical quantities

- A. Mass ,density and pressure  
B. Length ,mass and time  
C. Mass ,volume and time  
D. Mass, area and length  
E. Force, weight and friction

33. Micrometer screw gauge measures the length in (cm) to an accuracy of:-

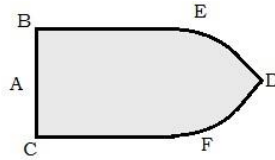
- A. Two decimal places  
B. One decimal places  
C. Three decimal places  
D. Four decimal places  
E. Five decimal places

34. The diagram below shows series of experiments performed by a student to determine the relative density of a cork that floats in water. Four reading of the spring balance were obtained.



The relative density of the cork is given by;- .....

35. A measuring cylinder is filled with oil. A girl says that the pressure at the bottom of the cylinder depends on
1. the height of the oil
  2. the area of the bottom
  3. the oil lubrication property
  4. the oil density
- Which of A, B, C, D, E is correct?
- A. 1 and 3    B. 2 and 4    C. 1 and 2    D. 1 and 4    E. 3 and 4
36. In a machine, the efficiency is less than 100% in practice. This is because
- A. the velocity ratio is greater than mechanical advantage
  - B. the mechanical advantage is greater than 1
  - C. the velocity ratio depends on friction.
  - D. the efficiency does not depend on velocity ratio
  - E. the efficiency does not depend on mechanical advantage
37. The electric charge is passed onto a conducting surface with the shape shown below. The different parts of the surface are labeled A to E.



The arrangement of the part of the surface having largest concentration of charge to low concentration of charge are;-

- A. A, B, E, then D
  - B. D, F, C then A
  - C. D, C, F then A
  - D. C, D, F then A
  - E. B,D then E and F
38. The force of friction which exists between layers of liquid is called:-
- A. Viscosity
  - B. Capillarity
  - C. Surface tension
  - D. Elasticity
  - E. Cohesive force
39. The acceleration of a moving object may be found from
- A. the area under its velocity time graph.
  - B. the slope of the velocity-time graph.
  - C. the area under its distance-time graph.
  - D. the slope of the distance-time graph.
  - E. the slope of the peak of its distance-time graph.
40. Capacitors of  $1\mu\text{F}$ ,  $3\mu\text{F}$  and  $5\mu\text{F}$  are connected in series. The equivalent capacitance is;-

- A.  $\frac{1}{3}\mu\text{F}$     B.  $\frac{1}{9}\mu\text{F}$     C.  $\frac{1}{15}\mu\text{F}$     D.  $9\mu\text{F}$     E.  $15\mu\text{F}$

- B. Match the items in **List A** with a correct response in **List B** by writing a letter of a correct response below the corresponding item number in the tables provided.

| List A | List B |
|--------|--------|
|--------|--------|

|   |   |
|---|---|
| 41. An instrument that measures length, depth, internal and external diameters.<br>42. An instrument that measures volumes of liquid<br>43. An instrument that measures force of pull<br>44. An instrument that transfers a specific amount of liquid from one container to another.<br>45. An instrument that measures body temperature. | A Measuring cylinder<br>B Pipette<br>C Vernier caliper<br>D Glass tumbler<br>E Spring balance<br>F Clinical thermometer<br>G Magdeburg experiment |
|---|---|

| LIST A   | LIST B  |
|--|---|
| 46. Density<br>47. Force<br>48. Relative density<br>49. Time<br>50. Friction | A. Has no unit<br>B. Shows relationship of density of object on Earth to that on moon.<br>C. SI unit is microseconds<br>D. SI unit is second<br>E. This is the force experienced when a metal, solid or hard object is twisted.<br>F. It prevents one object from sliding easily over another.<br>G. is a measure of how closely the constituent particles of substance are packed in limited volume<br>H. SI unit is Newton. |

| LIST A  | LIST B  |
|---|---|
| 51. An instrument that measure length, depth, internal and external diameters.<br>52. An instrument that measure different volume of liquid<br>53. An instrument that measure force and weight<br>54. An instrument that transfer specific amount of liquid from one container to another<br>55. An instrument that measure electric charge flowing | A. Measuring cylinder<br>B. Gold leaf electroscope<br>C. Pipette<br>D. Micrometer screw gauge<br>E. Vernier caliper<br>F. Ammeter<br>G. Glass tumbler<br>H. Spring balance<br>I. Clinical thermometer<br>J. Beam balance<br>K. Magdeburg experiment |

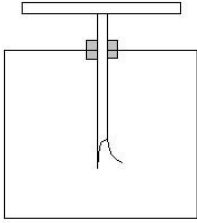

Complete each of the following statement by writing the correct answer in the space provided (56-60)

56. The relative density of a liquid can be easily determined by  
57. Mass, time and length are example of .....  
58. A body of mass 20kg and volume of  $40\text{m}^3$ , its density is  
59. Used to measure electric charge in the laboratory .....  
60. The material which return to their original shape and size after removing the stretching force is called .....

Fill the gaps with correct response

|  | NAME OF THE DEVICE | SKETCH | USES | PHYSICAL EFFECT/<br>PRINCIPLE |
|--|--------------------|--------|------|-------------------------------|
|  |                    |        |      |                               |



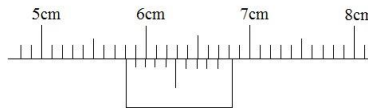
|     |                 |   |  |  |
|-----|-----------------|---|--|--|
| 61. | Rheostat        |   |  |  |
| 62. |                 |  |  |  |
| 63. | Simple pendulum |   |  |  |
| 64. |                 |  |  |  |
| 65. | Plane mirror    |   |  |  |

66. List the fundamental physical quantities in which the following physical quantities depends (i) Speed (ii) Density (iii) Force (iv) Volume (v) Relative density (vi) Circumference

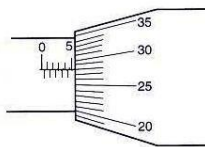
67. Name the instruments you would use for the following measurements;-

- (i) Diameter of the wire (ii) Internal and external diameter of the tube  
(iii) Average thickness of the page of the ream of paper (iv) The height of the door

68. Write down the vernier reading of the following figures below



69. What are the micrometer readings shown below when the horizontal scales is in mm and half mm below



Use the following information to answer question 70-73

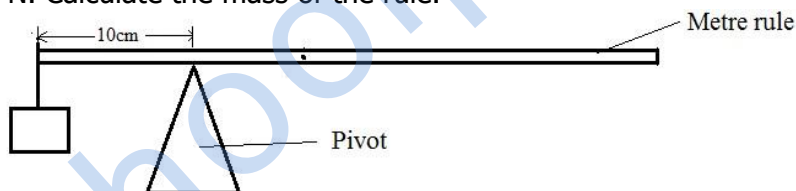
In the experiment to determine the density of materials of one hundred shilling coins the following were the results

- Diameter (d) of the coin = 2.2cm
- Thickness (t) of the coin = 0.22cm
- Table of results

|                          |    |    |    |     |     |
|--------------------------|----|----|----|-----|-----|
| Number of coins, n       | 2  | 5  | 8  | 11  | 14  |
| Mass, m of the coins (g) | 15 | 45 | 70 | 104 | 125 |

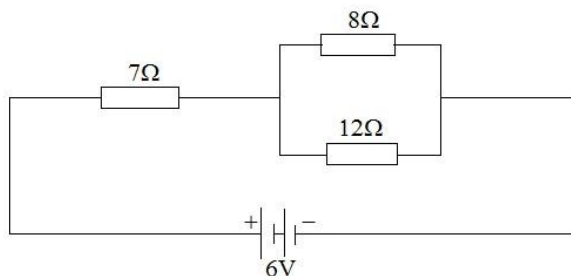
70. Plot a graph of mass of the coin (vertical axis) against number (n) of the coins (horizontal axis) on the graph
71. Determine the slope  $S$  of the graph
72. What is the physical meaning of the slope?
74. If the beam balance registered 2.3kg when measuring the mass of the fish and the zero reading of the beam balance was 0.4kg, what was the true value of the mass of the fish?
75. A block of wood with volume of  $24\text{cm}^3$  has a mass of 48grams. Calculate;-  
(a) Its density (b) Its relative density
76. Write three differences between mass and weight.
77. Haji has a mass of 72kg. What is the weight of Haji?
78. An object weight 800N on the earth's surface. If it was taken to another planet of gravitational force of 2N/kg, what would be its weight and its mass?
79. What do you understand by the following terms  
(a) Work (b) Energy (c) Power
80. Calculate the power of a pump which can lift 200 kg of water through a vertical height of 6 m in 10 seconds.
81. A 1000 kg car is travelling down the road at a speed of 15 m/s. How much kinetic energy does it have?
82. Explain why does a balloon rise in air?
83. Briefly explain why does ship sink deeper in fresh water than in sea water?
84. Explain why a piece of solid steel sinks while a steel sphere floats in water?
85. A body dipped in a liquid experiences an upthrust. State the factors on which the upthrust depends.
86. While floating, what can you conclude about the weight of the body upthrust and apparent weight of floating body?
87. When a solid X is completely immersed in a liquid A, the mass of the liquid displaced is found to be 28g. When the solid X is completely immersed in water, the mass of water displaced is found to be 10g. Calculate;-  
(a) The density of liquid A  
(b) The displaced volume of liquid A  
(c) volume of the solid X
88. When a wooden block floats in water, it displaces  $0.006\text{m}^3$ , find the weight of the block when it is in air.
89. An iceberg of density  $920\text{kg/m}^3$  floats in sea water of density  $1030\text{kg/m}^3$ , what percentage of the volume is submerged?
90. Distinguish between distance and Displacement
91. Provide one example of the law of inertia of a body.
92. What mass will be given to a body with an acceleration of  $7\text{ m/s}^2$  by a Force of 3N?
93. Briefly explain the motion of an object under gravity by taking an example of a ball thrown straight up into the air
94. A car with a velocity of 60 km/h is uniformly retarded and brought to rest after 10 seconds. Calculate its acceleration.
95. State Pascal's principle of pressure
96. What are the three factors that affect the liquid pressure?

97. Calculate the area of an object if the pressure exerted is  $0.2 \text{ N/m}^2$  and its force is  $2 \text{ N}$ .
98. Explain four situations in which pressure is applied
99. Explain why it is easier to cut a piece of meat by using a sharp knife than when using blunt knife?
100. A patient is to get an injection. If the point of the needle has a cross-sectional area of  $0.000001 \text{ m}^2$  and the nurse exerts force of  $0.5 \text{ N}$ , what pressure does the needle tip produce on the skin of the patient?
101. A force of  $5 \text{ N}$  is applied to the smaller piston of a hydraulic press. If the smaller piston has a cross sectional area of  $0.001 \text{ m}^2$  and the large piston has a cross sectional area of  $0.01 \text{ m}^2$ , find the force produced on the large piston.
102. Define the following terms (i) Pressure (ii) Thrust
103. Distinguish the following terms (i) Cohesion and adhesion (ii) Elastic material and plastic material
104. Outline two applications of diffusion
105. An object of mass  $5000 \text{ g}$  hangs from the spring. If the force constant of the spring is  $25 \text{ N/m}$ , how far (in metre) would the spring stretched?
106. State the law of polarity
107. Use clear diagram to illustrate the law of polarity
108. By using diagram briefly explain how neutral point can be formed
109. Outline three applications of earth's magnetic field
110. Light is a form of energy. State any two characteristics of it which can be distinguished from other forms of energy.
111. With the aid of a diagram, state the laws of reflection
112. How many images can be formed if two mirrors are set? (i) At angle of  $60^\circ$  (ii) parallel to each other.
113. State the principle of moments.
114. Explain briefly why the compartments are placed at the bottom of the bus.
115. Distinguish between stable equilibrium and unstable equilibrium.
116. A metre rule is pivoted about a point O as shown in below and it is balanced by a load of  $0.2 \text{ N}$ . Calculate the mass of the rule.



117. A uniform wooden bar AB of length  $120 \text{ cm}$  and weighing  $1.20 \text{ N}$  rests on two sharp edged supports C and D placed  $10 \text{ cm}$  from each end of the bar respectively. A  $0.20 \text{ N}$  weight hangs from a loop of thread  $30 \text{ cm}$  from A and  $0.90 \text{ N}$  weight hangs similarly  $40 \text{ cm}$  from B. Sketch a diagram showing the arrangement of forces then find the reactions at the supports.
118. What are the uses of the following devices? (i) Manometer (ii) Hare's apparatus (inverted U-tube) (iii) U-tube (iv) Barometer
119. Why a big Elephant manages to walk comfortably in muddy soil without sinking while a human being may sink easily?
120. Draw a well labeled diagram which demonstrates that liquid pressure depends on depth.
121. Mention three uses of current electricity.
122. State Ohm's law
123. What factors do the resistance of the conductors depends on?
124. Will the current flow more easily through thick or thin wire of the same material when connected to the same source?

125. In the circuit below find (i) total resistance of the circuit (ii) the current flowing in the circuit

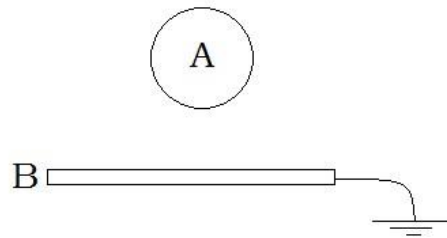


126. Why is it advised to connect bulbs in parallel arrangement during installation of electricity in most buildings?
127. Form one students at Dodoma Secondary School who were conducting an experiment to verify Ohm's Law in the laboratory, were given the following instructions: *Connect in series a resistor  $R$ , a battery  $B$  of two cells, a switch  $K$ , an ammeter  $A$  and rheostat  $S$ . Then connect a voltmeter  $V$  across resistor  $R$ .* Draw a well labeled circuit representing this experiment.
128. Define the following terms (i) Clinical thermometer (ii) Six's thermometer
129. List down two precautions during the use of clinical thermometer
130. Convert the following units of temperature (i)  $58^{\circ}\text{C}$  to  $^{\circ}\text{F}$  (ii)  $100^{\circ}\text{C}$  into  $^{\circ}\text{F}$
131. Explain why water wet the glass while mercury does not?
132. What do you understand by Brownian movement?
133. When you open a bottle of a perfume in front of the class, a few minutes the smell reaches the whole class. Explain why this happens.
134. State Hooke's law.
135. Give three uses and applications of elastic materials.
- Use the following table gives the results of extension of a spring under tension to answer question (136-139):-

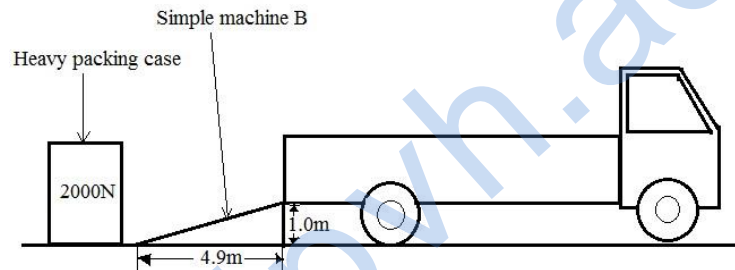
| Force (N) | Extension (cm) |
|-----------|----------------|
| 0         | 0              |
| 4         | 2              |
| 8         | 4              |
| 12        | 6              |
| 16        | 8              |
| 20        | 10             |

136. Plot a graph of Force against extension
137. Find the force constant of the spring.
138. What would be the value of extension when the value of force is 10N?
139. If the force is 200N do you think that the value of extension will be 100cm? Give explanation
140. Why is that, a needle may float on clean water but sink when detergent is added to the water surface?
141. Give two evidences that show there is the force of attraction between molecules.
142. Explain how the roots of plants take in the water.
143. A car advertisement claims that headlights of a new car can see around corners. Why is this statement untrue?
144. State and explain what will happens to the gold leaf, when the following are placed, near the plate of a positively charged electroscope:

- (a) An ebonite rod after rubbed with fur  
 (b) A negatively charged body
145. Sketch the electric field in the diagram below. A is a negatively charged spherical conductor and B is earthed metal plate.



146. Explain, how can you make a simple plane mirror? Give the steps  
 147. You are designing a Barbershop with two large plane mirrors. What can be done in order to form five images of the customer using those two mirrors?  
 148. Draw a diagram of a single-string pulley system with a velocity ratio of 4.  
 149. If the efficiency of a single-string pulley system of velocity ratio 4 is 75%, what effort is required to raise a block of weight 300N?  
 150. The diagram below shows a simple machine B which has to be used to pull the packing case 2000N into the car by the effort of 500N. Calculate the efficiency of machine B.



## HISTORY

1. Choose the most correct answer and write the correct objective (letter) in the box provided.
- (i) Parts of the world which were shown by archaeologists as areas of greater steps in human evolution include:-
- |                                 |                          |
|---------------------------------|--------------------------|
| A. North East African societies | C. South and East Africa |
| B. West and Central Africa      | D. North Africa          |
- (ii) Homo habilis was:-
- |                                 |                                      |
|---------------------------------|--------------------------------------|
| A. Tripedal human creature      | D. Proconsul in the evolution of man |
| B. Skillful man by making tools |                                      |
| C. They walked on two limbs     |                                      |
- (iii) Homo sapiens lived in one of the following periods:
- |                    |                     |
|--------------------|---------------------|
| A. Iron age        | C. Middle stone age |
| B. Early stone age | D. Late stone age   |
- (iv) The early iron centers in Africa were:
- |                                       |
|---------------------------------------|
| A. Karagwe, Shinyanga, and Songezi    |
| B. Meroe, Nok Culture and Kapwirikwe  |
| C. Kilwa, Bagamoyo and Nairobi        |
| D. Dar Es Salaam, Kampala and Nairobi |

- (v) Fire was discovered during:
- A. Old stone age
  - B. Neolithic age
  - C. Middle stone age
  - D. Wear stone age
- (vi) The term fossils mean
- A. Human creatures which ate vegetables only
  - B. Chimpanzee and gorilla
  - C. Underground hardened remains which exist in rocks
  - D. Hairy bodies of the early man
- (vii) The name that was given to tools used by man in early stone age were called
- A. Sangowani tools
  - B. Oldwan tools
  - C. Paleolithic tools
  - D. Archeulian tools
- (viii) Which of the following was the last stage to the evolution of man
- A. Australopithecus
  - B. Homo sapiens
  - C. Homo erectus
  - D. Homo habilis
- (ix) Homo Erectus is basically associated with which stone age periods?
- A. Iron age
  - B. Middle stone age
  - C. Early stone age
  - D. Late stone age
- (x) All the below were some of the uses of iron tools by man except:-
- A. Heating
  - B. Skinning of animals
  - C. Protection
  - D. Making agricultural tools
- (xi) The below mentioned is the study of culture of ethnic groups by examining ideas, beliefs, institution and
- A. Archeology
  - B. Linguistic
  - C. Anthropology
  - D. Archives
- (xii) The following is a local museum found in Tanzania
- A. Bujora in Mwanza
  - B. Kondoia
  - C. Bagamoyo
  - D. Mpanda
- (xiii) Man started to be skilful and tool maker at the stage of
- A. Homoeractus
  - B. Homohabilis
  - C. Zinjanthropus
  - D. Modern apes
- (xiv) The following were the stone age sites found in south Africa
- A. Victoria falls and broken hills
  - B. Lochard and Mufo
  - C. Sterkfontein and Vereeninging
  - D. Hopefield and lochard
- (xv) The age in which man made and used fire was known as
- A. Mesolithic age
  - B. Paleolithic age
  - C. Neolithic age
  - D. Ironolithic age
- (xvi) Which of the following is the cause of Ngoni migration?
- A. Abolition of slave trade

- B. Population increase
- C. The rise of trans Saharan trade
- D. The need to search for new areas
- (xvii) The social factors for interactions among the people of Africa were:
  - A. Migration, intermarriage and areas for settlement
  - B. Language, migration and population increase
  - C. Trade, war and migration
  - D. Trade, intermarriage, language and population increase
- vii) One of the items below was the aim of Portuguese interest in the east African coast in the 15<sup>th</sup> century
  - A. Prevention of Islam
  - B. Provision of social services
  - C. Spread of Christianity
  - D. To develop Africa
- viii) The traders from Far East and Middle East came in east Africa through the Indian with the help of:
  - A. Ocean currents
  - B. Monsoon winds
  - C. Mozambique currents
  - D. Prevailing winds
- ix) Books, newspapers and magazines as source of history can be termed as:
  - A. Oral traditions
  - B. B. Archaeology
  - C. C. Archives
  - D. D. Written records
- x) A period based on man's economic activities and the type of tools used is referred to as:
  - A. an age
  - B. a millennium
  - C. a century
  - D. a decade
- xi) Trade across the Sahara desert was one of the main causes of
  - A. The fall of Songhai Empire
  - B. Spread of the jihad
  - C. The rise of Ghana empire
  - D. The rise of Oyo Empire
- xii) .....is among the impacts of economic interactions among the people of Africa
  - A. Growth of villages
  - B. Spread of languages
  - C. Rainfall
  - D. Growth of towns and cities
- xiii) One disadvantage of communalism was
  - A. Production of surplus
  - B. Low quantities of produce
  - C. Inequality in the society
  - D. The harshness of the kings
- xiv) One positive effect of Portuguese rule in east Africa was the
  - A. Decline of kingdoms
  - B. Introduction of new crops
  - C. Growth of coastal city states
  - D. Encouraging Africans to sail to the West Indies
- xv) The study of history has many pros, identify one among the following statements which is not a pros



- A. To realize that for every historical problem, there is less than six methods to find out the solution
  - B. To help us know peoples good deals and misdeeds, courage, wisdom and unity
  - C. To understand our genesis and our past situation
  - D. To know man's life and development
- xvi) Local trade among African societies become possible when
- A. Iron tools increased
  - B. People could produce more than their needs
  - C. People produce less than their needs
  - D. One society become more powerful than others
- xvii) The following describe the major forms of feudal relations in the interlacustrine region
- A. Nyarubanja, Busulu and Ubugabire
  - B. Ubugabire, serfdom and Busulu system
  - C. Slavery, Umwinyi and communalism
  - D. Ntemiship, serfdom and Nyarubanja
- xviii) A source of historical information which contains remains that shows man's physical development activities and tools he used is
- A. Museums
  - B. Oral tradition
  - C. Archives
  - D. Historical sites
- xix) The following is one of the methods used in obtaining gold in African societies
- A. Shaft method
  - B. Pottery
  - C. Ornaments
  - D. Titration
- i) Books, news papers and magazines can serve as ..... source of history.
- A. Archeology
  - B. Written records
  - C. Oral tradition
  - D. Literature
- ii) It is said that the kids do belong to their mother's clans .....
- A. Patrilineal societies
  - B. Matrilineal societies
  - C. Matrilineal and patrilineal societies
  - D. Patrilinealess societies
- iii) Age set system was mainly practised by societies which engaged in
- A. Mixed farming
  - B. Pastoralism
  - C. Shifting cultivation
  - D. Permanent crop cultivation
- iv) Some of the commodities used as currency in pre-colonial Africa were:-
- A. Copper rods, Books and bronze
  - B. Iron, Gold dust and silver
  - C. Iron hoes, wood and silver
  - D. Salt clothes and courses shells
- v) The following were the main tribes which participated in the long distance trade:-
- A. Vimbundu, Imbangala and Maasai
  - B. Yao, Nyamwezi and Kamba
  - C. Maasai, Nyamwezi and kamba
  - D. Ngoni, Tuareg and barbaig
- vi) Which statement best describes the term Bipedalism
- A. Man started to walk on two limbs



- B. Man started to live a permanent settlement
  - C. Man practiced permanent agriculture
  - D. Man changed from ancient age to modern age
- vii) In which Stone Age did agriculture and domestication of animals evolved?
- A. The late stone age
  - B. The iron age
  - C. The middle stone age
  - D. The early stone age
- viii) The collection of private and public documents is called
- A. Archives
  - B. Archaeology
  - C. Museums
  - D. Historical sites
- ix) The single name that was given to the traditional leader of Buganda
- A. Kabaka
  - B. Umukama
  - C. Kabanka
  - D. Kabange
- x) Buganda kingdom was founded as a result of the collapse of Bunyoro Kitala kingdom. This was founded by
- A. Kato kimera
  - B. Isingoma Rukidi Mpunga
  - C. Nyungu ya mawe
  - D. Kabaka
- xi) In which stage of evolution of man did agriculture and domestication of animals evolve
- A. Iron age
  - B. New stone age
  - C. Middle stone age
  - D. Old stone age
- xii) Scholars whose work is to study historical remains are called
- A. Anthropologists
  - B. Biologist
  - C. Archeologist
  - D. Geologist
- xiii) The late stone age is an important stage in the development of human mental ability because
- A. Man innovated iron tools
  - B. Man started hunting and gathering
  - C. Man improved his settlement through crop cultivation and pastoralism
  - D. Man started to improve his machines so as to simplify his work
- xiv) One of the useless activity that took place in Africa was slave trade and due to its uselessness it was replaced with \_\_\_\_\_ type of trade.
- A. Long distance trade
  - B. Triangular trade
  - C. Exchange trade
  - D. Legitimate trade
- xv) The origin of the Ngoni speaking people is historically believed to be in
- A. Kimberley in South Africa
  - B. Natal in South Africa
  - C. Pretoria in South Africa
  - D. Soweto in South Africa

2. Fill in the following blank spaces by choosing correct answer from the blackest provided below.

**mistake identity, forest fire theory, fossil, microscopic organism, primates, olduvai tools, microliths tools, middle stone age, iron age and livestock keeping**

- i) It involved in the clearing of forests as a result of fire out break \_\_\_\_\_ . Man during this time had discovered fire that ended up displaying iron minerals.
  - ii) They are said to be remains of both plants and animals \_\_\_\_\_. And these included the skull of early man, stone tools and iron tools.
  - iii) \_\_\_\_\_ is said to have begun in the late Stone Age. As a result of this, man used to obtain different products such as skins, horns, meat and other products.
  - iv) Before, man used copper ores in his activities. But as to the explanations of \_\_\_\_\_ theory, man accidentally started to apply iron ores in his activities.
  - v) \_\_\_\_\_ do include apes, chimpanzee, gorilla and monkeys. They have got long hairs on their bodies compared to those human beings.
  - vi) The small, sharper and lighter stone tools are known as \_\_\_\_\_
3. Arrange the following sentences in a chronological order by writing their roman numbers in the table given.
- i) Homo sapiens was a stage in which man attained modern shape and characteristics of the modern man.
  - ii) This creature had the ability to walk on two limbs.
  - iii) He was the modern man in behaviour and appearance.
  - iv) At the beginning man was in a group of primates
  - v) At about 12 million years ago BC zinjanthropus came into existence.

#### ANSWERS

| 1 <sup>st</sup> | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 4 <sup>th</sup> | 5 <sup>th</sup> |
|-----------------|-----------------|-----------------|-----------------|-----------------|
|                 |                 |                 |                 |                 |

#### Answer all questions

4. What do you understand by the following historical terms:-
  - a) Creationism
  - b) Evolution
  - c) Bipedalism
  - d) Neolithic age
  - e) Homo sapiens
5. With examples, list five changes made by man in the stone age
6. With examples, mention any five uses of fire when it was discovered by early man.
7. Match the items in **LIST A** with the correct responses in **LIST B** by writing the letter of the correct response below the corresponding item number in the table provided.

| LIST A  | LIST B              |
|---|---------------------|
| i. The founder of Evolution theory  | A. Bartolomeo Diaz  |
| ii. The archaeologist who discovered the tools and the skull of the first tool maker at Olduvai Gorge | B. Chief kamba      |
|   | C. Chief Kivoi      |
|   | D. Zimba            |
|   | E. Francis Drake    |
|   | F. Jan Van Riebeeck |
|   | G. Vasco da Gama    |
|   | H. Zwangendaba      |
|   | I. Mputa Maseko     |
|   | J. Charles Darwin   |

|       |  |  |
|-------|--|--|
| iii.  | The Africa trader who established kamba kingdom  | K. Prince Henry navigator  |
| iv.   | The leader of Ngoni group who led the Nguni speaking people to move from Natal into Songea | L. Kwame Nkrumah   |
| v.    | The first Portuguese visitor at the cape of Good Hope                                      | M. Khoisan   |
| vi.   | Peleolithic  | N. Louis Leakey  |
| vii.  | Southern Ape man   | O. The other name to mean old stone age                            |
| viii. | Middle stone age   | P. They deal in the production of iron tools                       |
| ix.   | Agriculture  | Q. It is considered as the last stage of evolution                 |
| x.    | Primate  | R. Man cleared bushes  |
| xi.   | Maasai, Karamajong and pokot   | S. Australopithecus  |
| xii.  | Barter system  | T. The growing of both crops and rearing of animals                |
| xiii. | Taghaza, Markesh and sijilmasa   | U. Man dealt in the production of metal items                      |
| xiv.  | Trans Saharan trade  | V. They have long hairs on their bodies                            |
| xv.   | Planting different crops on the same pieces of land  | W. Hunting, gathering, defense and others                          |
|       |  | X. The beginning of crop husbandry and domestication of animals    |
|       |  | Y. Iron technology in Nigeria                                      |
|       |  | Z. Specialized in iron smith                                       |
|       |  | AA. The gradual change of human development                        |
|       |  | BB. Crop rotation  |
|       |  | CC. Inter cropping   |
|       |  | DD. Basically involved in the exchange of goods for goods          |
|       |  | EE. The trading activity between Northern Africa and Western Sudan |
|       |  | FF. The major trading centres in West Africa.                      |
|       |  | GG. In example of centralized state in Nigeria                     |
|       |  | HH. Is the first stage of evolution                                |
|       |  | II. The pure pastoralist societies in Africa.                      |

8. Write **short notes** on the following terms:

- Age
- (b) Trans Saharan trade
- Khoisan
- Clan organization
- (e) Social organization

9. Arrange the following sentences in a chronological order by writing their alphabets in the table provided.

- Mfecane was a great upheaval which started in Zululand.
- It denotes the wars and disturbances which accompanied the rise and growth of Zulu state.
- The word Mfecane is derived from the Nguni language.
- Zulu land is part of the coastal corridor of South Africa.
- Mfecane was resulted in a chain of migrations which affected central and east Africa as well as south Africa itself.

| 1st | 2 <sup>nd</sup> | 3rd | 4th | 5th |
|-----|-----------------|-----|-----|-----|
|     |                 |     |     |     |

10. Draw a sketch map of East Africa and locate the following historical sites

- i) Kilwa
- ii) Bagamoyo
- iii) Katanga
- iv) Isimila
- v) Olduvai gorge

11. Complete each of the following statements with correct historical facts.
  - a) The overall control of the feudal lords under umwinyi was exercised by the .....societies.
  - b) Chief Isike was a leader of .....kingdom
  - c) The second exploitative mode of production in pre colonial African societies was called.....
  - d) The most important region in pre colonial Africa where copper mining and processing activities took place was.....
  - e) What was the main achievement of man during the late Stone Age?.....
  - f) Improvement of ..... facilitate the transformation from one mode of production to another
12. Arrange the following sentences in a chronological order by writing their Roman number in the table given below.
  - i) Homo sapiens was a stage in which man attained modern shape and characteristics of the modern man.
  - ii) This creature had the ability to walk on two limbs.
  - iii) He was the modern man in behaviour and appearance.
  - iv) At the beginning man was in the group of primates.
  - v) At about 12 million years ago (BC), zinjanthropus came into existence.
  - vi) Also he was known as a true man of today
13. Draw a sketch map of Africa show five early iron centers during the Pre colonial period
14. Use the following guidelines, write an essay on the factors for Ngoni successes to migrate from South Africa and establish their settlement in other parts
  - (a) Meaning of Ngoni Migration
  - (b) Period
  - (c) Four causes
  - (d) Factors for Ngoni successes
  - (e) Conclusion
15. Show how agriculture changed the man's life during the Pre colonial period
16. Give six features of the pre colonial non antagonistic mode of production
17. . Explain six causes of Boers Trek.
18. Elaborate six factors that led to the development of Trans- Saharan trade.
19. Explain six social factors for interactions in pre-colonial era.

## BIOLOGY

1. (a) Define the following terms:(a)food chain (b)food web  
(b) The following organisms were found in a grass land ecosystem, Grasses, Acacia tree, Gazelle, Rabbit, Hyena, Leopards and Bacteria
2. Construct a positive food web for this ecosystem
3. From the food web you have construct , which organism are  
(a) Primary producers (b) primary consumers (c) secondary consumers
4. (a) Explain the characteristics of surface used for gaseous exchange (4characteristics)  
(b) Name the structures used for gaseous exchange in the following organisms  
(i) frog (ii) fish (iii) amoeba (iv)insects (v) mammals  
(c ) Why it is not health to sleep in a closed room with potted plants?
5. (a) What do you understand about the following terms(a)cell (b)zoology (c)first aid  
(b) State the uses of each the first aid kit(a)liniment(b)pain killer(c)sterile gauze(d)cotton wool  
(c) Distinguish between unicellular and multicellular organism. Giving one example in each case
6. (a) Give the meaning of the following terms (a)Digestion (b)Assimilation  
(b) For each of the following cases, provide the information required below (a)A school children showed a sign of gum bleeding (b)animals did not reproduce after fed a diet lacking a certain vitamins(c)children whose diet consists of entirely polished rice(d) in ability of blood clotting (e)a student fail to see in dim light  
(c ) Explain why workers who most of the time work while seated, need moderate amount of carbohydrates in their diet
5. Explain the causes, mode of transmission and prevention measures of typhoid one of the communicable diseases in Tanzania
6. Outline seven steps of scientific process used by scientists in the scientific investigation
7. Why hand lens is useful in studying Biology?
8. Define the following terms (a)parasite (b)Host (c)community
9. Give two examples of each of the following group of parasitic organism  
a)endoparasite (b) ectoparasite
10. State the meaning of the term "tissue" as used in Biology
11. Arrange the following terms in a sequence order from simple to complexity of cell differentiation: Tissue, Organism, Organ, Cell and system
12. Outline 4 differences between plant cell and Animal cell
13. Name two enzymes secreted by the part labeled with letter F
14. State the role of any one of the enzymes secreted by the part labeled F
15. Mention three structures used for gaseous exchange in land plants
16. Briefly explain how the structure of a leaf is adapted to allow rapid gaseous exchange
17. Name the product of anaerobic respiration in human being muscles
18. Descibe how you can provide first aid to a person who has been "beaten by a snake" and the one who has "fainted during the parade ground"

19. With the aid of a diagram, describe the structure of the type of blood cells and give one function for each blood cell
20. State the role(s) of the following (a)chlorophyll(b)xylem(c)tongue(d)teeth
21. List 4 economic importance of kingdom Monera
22. Name any four factors that affect the rate of transpiration
23. Mention four the importance of classifying organisms
24. Define the term transpiration
25. Mention any three advantages of transpiration to plants
26. Define malnutrition diseases
27. Write an essay on kwashiorkor using the following guideline(a)causes(b)symptoms(c)methods of prevention
28. Name any 4 malnutrition diseases other than kwashiorkor
29. Differentiate between the following(a)osmosis and diffusion (b)gaseous exchange and respiration
30. Name three element s which form carbohydrates
31. Write an essay on food preservation using the following guidelines:(a)definition of food preservation (b)methods used in food preserved in each method
32. Define the term "Photosynthesis"
33. List down three points to show the economic importance of photosynthesis
34. What do you understand by the term Bionomial Nomenclature?
35. Define blood transfusion
36. List four functions of mammalian blood
37. List four advantages of the kingdom in which the organism in figure belongs
38. What is breathing?
39. Name the structures used for gaseous exchange in the following organisms  
(a) fish (b)cat (c) grasshopper (d) green plants (e) spider
40. Draw and label the transverse section(T.S) of a dicotyledonous root
41. Define the following terms (a) ecosystem(b)habitat(c)biotic factors
42. "KEEP THE ENVIRONMENT CLEAN". This slogan emphasizes non the maintaining the surroundings of the community through proper waste disposal.
43. Write an essay using the following guidelines:(a)meaning of waste and waste disposal (b) types of waste (c) proper ways of disposing waste (d) effects of poor waste disposal
44. Rape is of the current social problems in the society. Write an essay on rape under the following guidelines:  
(a) Possible causes of rape (b) action to be taken if rape occurs (c) effects of rape (d) ways of preventing/minimizing rape
45. What is respiration b.name two types of respiration
46. Describe four factors that affect the rate of respiration
47. Define transpiration
48. Outline the significance of transpiration in plants
49. Write an essay on AIDS by using the following guidelines:  
(a) Meaning of AIDS (b) Cause of disease (c) Where can the causative organism be found in an infected person? (d) Transmission of the disease (e) Symptoms of the disease (f) prevention of the disease
50. Write an essay on the economic importance of bacteria in:  
(a) Agriculture (b) Medicine (c) Industries
51. Why do we need to study Biology?(4reasons)
52. Give three examples of cells found in:(an animal body(b)a plant body
53. Draw a well labeled diagram of an amoeba
54. Mention one disadvantage of each of the following organisms:(a)amoeba(b)plasmodium(c)trypanosome
55. What is a food web?
56. Construct a simple food web involving the following organisms: grasshopper, frog, grass, hawk and snake

57. From question NO 54. which group of organisms is not shown on the food web diagram you have drawn? What is the importance to the food web?
58. Explain the advantages and disadvantages of blood transfusion (give two for each)
59. What is gaseous exchange?
60. Why is it healthier to breathe through the nose than through the mouth?
61. Outline factors affecting the rate of breathing in mammals (Give two points)
62. Give differences between aerobic and anaerobic respiration. (three points for each)
63. Write an essay on Health, using the following guidelines: (a) meaning of health, infection and personal hygiene (b) factors which contribute to good health (c) ways of maintaining proper personal hygiene during puberty
64. What is the microscope?
65. What is the function of (a) microscope slide? (b) mirror?
66. Explain the uses of the following first aid kit components: (a) scissors (b) gauze (c) adhesive plaster (d) iodine tincture
67. Explain the importance of giving the first aid
68. What is community?
69. Distinguish a food chain from a food web
70. Explain the significance of food chains and food webs in real life situation
71. Outline three points of importance of care and support to people living with HIV/AIDS (PLWHA)
72. What is blood circulation?
73. Explain three points on the importance of blood circulation in human being
74. Mention two disorders of human blood circulation system
75. What do you understand by the term "diffusion"?
76. Name two structures concerned with gaseous exchange in plants.
77. What is natural environment?
78. Explain the importance of the natural environment
79. Write an essay on kwashiorkor using the following guidelines: (a) meaning (b) cause (c) symptoms (d) effects (e) prevention and control
80. Explain why the artificial system of classification is not good
81. Give a reason as to why it is necessary to put on gloves when giving first aid to a bleeding person
82. What is cell differentiation?
83. Briefly explain the importance of cell differentiation
84. Explain the role of each of the following organisms in the ecosystem: (a) producers (b) decomposers
85. Explain the significance of food chains
86. Write an essay on body immunity using the following guidelines: (a) meaning (b) types (c) factors affecting body immunity
87. Write an essay on personal hygiene using the following guidelines: (a) meaning (b) principles (c) importance
88. List four advantages of fungi
89. Outline two disadvantages of fungi
90. Outline four qualities of a good laboratory
91. Mention one function of each of the following apparatus: (a) petri dish (b) mortar and pestle (c) hand lens (d) thermometer
92. Give a reason for each of the following characteristics of respiratory surfaces: (a) have thin walls (b) have large surface area
93. What is meant by the term "agent of disease"?
94. Name the agent for each of the following diseases (a) Common cold (b) cholera (c) dysentery (d) bilharzia
95. Briefly explain how biology is related to the following fields: (a) agriculture (b) medicine
96. What do you understand by the term (a) puberty (b) adolescence
97. What do you understand by the following terms as used in biology (a) transportation of materials (b) mass flow



98. (a)give one example of abiotic component of the environment(b)give one example biotic component of the environment
99. Elaborate any three traditional and three modern methods used in food processing, Preservation and storage
100. List the major groups of living organisms(mention 5)
101. Define the following terms(a)diffusion(b)osmosis
102. Explain why a red blood cell immersed in a low concentration solution burst?
103. State one function of each of the following blood cell:(a)red blood cell(b)platelets
104. Explain the causes, mode of transmission and prevention measures of cholera as one of the communicable disease in Tanzania.
105. Name four parts of the human alimentary canal.
106. State three effects of poor waste disposal to the community
107. Why is a hand lens useful in studying Biology?
108. Give any three adaptations of ileum for the absorption of food in the alimentary canal
109. Define the following terms(a)parasite(b)host(c)community
110. With the aid of a diagram, describe the structure of each of the types of blood cells and give one function for each
111. Give the meanings of the following terms(a)digestion(b)assimilation(c)emulsification
112. What is the differences between digestion in human and digestion in cows
113. Define the term: (a) Chemosynthesis (b) Autotrophic (c) Hetetrophic
114. name the raw materials for photosynthesis to take place
115. Name three conditions necessary for photosynthesis
116. Arrange the following in the correct order; Bronchi, Pharynx, Bronchioles, Nasal passage, Alveoli, Trachea.

## INFORMATION AND COMPUTER STUDIES

Choose the most correct answer for each of the following questions and write its letter in the box

1. A computer can be defined as
  - a) An electronic device that can process data into information
  - b) A device that can solve problems by executing a special set of instruction
  - c) A time keeping device
2. The following statement are true about the data except
  - a) Data are raw facts collected about a topic certain area
  - b) Data is meaning to the user
  - c) Data needs to be processed in order to make meaning out of it
3. Information is useful because
  - a) It can be used as basis for decision making
  - b) It can be spread throughout the world
  - c) It can be shared by different people
4. Information and communication refers to
  - a) Modern computers
  - b) Modern technology that support processing and dissemination of information
  - c) Portable computers such as personal digits assistants (PDAs and cell phones
5. A computer laboratory is a
  - a) Special room where computer are stored
  - b) Special room where computers are setup for safe
  - c) Room where computers are sold
6. The output from printer is referred as to
  - a) Softcopy
  - b) Hardcopy



- c) Software
  - d) hardware
7. The central processing unit also referred to as
- a) System unit
  - b) Processor
  - c) RAM
  - d) ROM
8. Data becomes ..... when it is presented in a format that people can understand and use
- a) processed
  - b) graphs
  - c) information
  - d) d. Arithmetic and language
9. the follow device are input devices
- a) Smartphone
  - b) Computer
  - c) Printer
  - d) None of above
10. The tangible part of computer is call
- a) Hardware
  - b) Software
  - c) Livewire
  - d) softcopy
11. When a computer is working on given instructions it is called?
- a. Output
  - b. Storage
  - c. Processing
  - d. Input
12. Which of the following is NOT a function of the control unit?
- a. Read instructions
  - b. Interpret instruction
  - c. Direct operation
  - d. Execute instructions
13. The unit of storage used to represent a character is?
- a. Bit
  - b. Byte
  - c. Word
  - d. Kilobyte
14. Which of the following storage media provides sequential access only?
- a. Floppy disk
  - b. Magnetic disk
  - c. Magnetic tape
  - d. Optical Disk
15. Which of the following storage media used laser technology to store data
- a. Floppy disk
  - b. Magnetic tape
  - c. CD-ROM
  - d. Hard disk
16. The technology used to read pencil or pen marks on a multiple choice answer sheet is?
- a. OCR
  - b. OMR
  - c. POS
  - d. MICR
17. The MOST suitable device for the output of architectural drawing is a?

- a. Plotter
  - b. Laser printer
  - c. Graphics tablet
  - d. Lightpen
18. Which of the following output is an example of a hardcopy?
- a. An oral speech delivered by a speaker
  - b. A bill produced from the printer
  - c. The display on a monitor
  - d. A picture on a wall produced from a multimedia projector
19. In modern computers, the CPU speed is measured in?
- a. Kilohertz
  - b. Gigabytes
  - c. Kilobytes
  - d. Gigahertz
20. Which of the following is not application software?
- a. Word Processor
  - b. Spreadsheets
  - c. Windows
  - d. Smart Draw
21. Which of the following is not a function of the operating system?
- a. Control input/output operations.
  - b. Provides security
  - c. Perform calculation
  - d. Provide a friendly interface
22. An example of multitasking is?
- a. Doing a background save while typing a document
  - b. Allowing many users to use the same program
  - c. Allowing one user to use one program
  - d. Operating one program by many users
23. Which of the following is NOT an item of computer hardware?
- a. Keyboard
  - b. System base unit
  - c. Speaker
  - d. Icon
24. Information stored in Random Access Memory (RAM) is volatile. This means that it:
- a. Is kept in memory even when the computer is powered off.
  - b. Is lost when the computer is switched off.
  - c. Is automatically saved to disk when the computer is switched off.
  - d. Can burn if exposed to air.
25. The amount of memory (RAM or ROM) is measured in:
- a. Mega Bits
  - b. Bits
  - c. Bites
  - d. Mega Bytes
26. Where is the hard drive normally located in the computer?
- a. Underneath the monitor.
  - b. Inside the system base unit.
  - c. On top of the CD-ROM.
  - d. It plugs into the back of the computer.
27. Approximately how many Bytes are in a Mega Byte?
- a. 1 thousand Bytes
  - b. 1 hundred thousand Bytes
  - c. 1 thousand Kilo Bytes

- d. 1024 Bytes
- 28. Which of the following drives can hold the most information?
  - a. Floppy
  - b. CD-ROM
  - c. DVD
  - d. CD Re-Writer
- 29. What normally happens when you press the F1 key when a program is running?
  - a. The program closes down.
  - b. The system shuts down.
  - c. You can type in capital letters all the time.
  - d. The help facility for the program is opened.
- 30. Which of the following is NOT a peripheral device?
  - a. Motherboard
  - b. Scanner
  - c. Speaker
  - d. Monitor
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  - e. The program closes down.
  - f. The system shuts down.
  - g. You can type in capital letters all the time.
  - h. The help facility for the program is opened.
49. Which of the following is NOT a peripheral device?
  - e. Motherboard
  - f. Scanner
  - g. Speaker
  - h. Monitor
50. Which of the following is not classified as a storage device?
  - A. RAM
  - B. ROM
  - C. DVD
  - D. CPU
51. Preparing a disk for use known as
  - A. Scanning
  - B. Fragmenting
  - C. Opening
  - D. Formatting
52. The combination key used to capitalize letters is the
  - A. Control key
  - B. Alt key
  - C. Shift key
  - D. Space key
53. What does DEL key do in Windows Explorer?
  - A. Shows three directories.
  - B. Changing directories.
  - C. Shows the directory tree
  - D. Deletes files.
54. What is the shortcut to run the Windows Explorer?
  - A. Ctrl + W
  - B. Alt + S
  - C. Win + E
  - D. Alt + N
55. Which function does configure the computer when a new component is added?
  - A. Plug and Play
  - B. Press the power button
  - C. Information Technology
  - D. Press and Hold
56. Which one is not an operating system?
  - A. Ms-DOS
  - B. Unix
  - C. Mac-OS
  - D. GUI
57. Which of the following tasks would normally carried out by an operating system?
  - A. To transfer a file from one disk to another.
  - B. To calculate a person's pay.
  - C. To make an estimate of a company's profit
  - D. To do corrections on a document.
58. Three components of a Central Processing Unit are
  - A. Control unit, storage memory and the keyboard.

- B. Control unit, Primary memory and arithmetic logic unit.
  - C. Storage memory, arithmetic logic unit and motherboard.
  - D. Hard disk, Control unit and arithmetic logic unit.
59. The number of bits in a byte is
- A. 2                      C. 6
  - B. 4                      D. 8
60. Define the following terms
- a) (i) communication
  - (ii) Computer
  - (ii) Hard copy
  - (iii) Soft copy
61. Mention All computer output device
62. Mention two main physical parts of computer
63. (a) What is computer laboratory?  
(b) List five measures you would put in place to protect a computer system
64. Define the term
- i. Data
  - ii. Information
65. Identify six source of information
66. List two modern way of disseminating information
67. explain difference of two ways of disseminating information
68. Give the term of the following term
- (i) RAM
  - (ii) ROM
  - (iii) CPU
  - (iv) DVD
69. Difference between primary storage and secondary storage
70. Mention two example of ROM
71. Mention five computer input device
72. Explain Mention all computer output devices
73. what is computer
74. explain 8 application of computer in daily life
75. difference between data and information
76. Explain the importance of technology
77. Formatting disk is a process of preparing a hard disk, floppy disk or flash disk for use, including setting up empty file system (e.g. NTFS and FAT) .Mention four (4) steps of formatting a flash disk.
78. Malicious programs, simply referred to as **malware which** includes three key terms, namely:
79. For security reasons, a computer must be installed with the latest antivirus program. Mention four examples of Antivirus programs that can be used.
80. With at least two examples each, Mention three way that can be used to classify computer.
81. Computer generations depend on the change of technology used to develop them, mention the generation followed by the technology used in that generation. Do this for all five generation of
82. Give long forms of the following abbreviations:
- i. CD-R
  - ii. CD-ROM
  - iii. CRT
  - iv. LCD
  - v. MICR
83. Define the following terminologies:

- i. Hardware
  - ii. Printer
  - iii. Hardcopy
  - iv. Softcopy
  - v. Scanner
84. Differentiate between a computer processor and a computer memory?
  85. Mention three parts found inside the system unit of a computer briefly explaining their functions
  86. Differentiate between 'power sag' and 'power surge'.
  87. What is the difference between manual input and automatic input?
  88. Mention three power management devices, stating briefly their functions.
  89. Mention three parts found inside the system unit of a computer briefly explaining their functions
  90. What is Plotter? Who may use it?
  91. Draw the layout structure of an operation system.
  92. Draw a simple diagram to show how information is organized by a GUI operating system on drive C:
  93. Draw sketchy illustrations of two input devices, and two output devices.
  94. Draw sketchy illustrations of the three major power management devices.
  95. Explain how to turn on and turn off the computer.
  96. What is the difference between a folder and a directory?
  97. Why we are using folders?
  98. What is Microsoft Windows? Write its versions.
  99. Write any one function of Microsoft Windows
  100. Arnold has his pictures in his computer. He wants to share his pictures with his friends.  
Explain how to copy Arnold's pictures to your computer.
  101. After copying pictures, you decided to put them in a specific folder. Explain how you would create a new folder.
  102. You checked the pictures and you find some of them are not necessary. Explain how you would delete the unnecessary pictures.
  103. Explain three(3) importance of information on our society
  104. List five modern ways of disseminating information
  105. Outline two similarities between modern and traditional ways of disseminating Information
  106. What is a modern source of disseminating information? Give 5 examples
  107. Explain the communication media.
  108. three functions of an operating system
  109. Explain briefly three(3) effects of voltage fluctuations on computers
  110. Computers are increasingly being used in most places. Briefly state four such places, and how they are being used there
  111. What is the difference between Volatile and non-volatile
  112. Give three examples of data that can be turned into information
  113. Distinguish between RAM and ROM
  114. Mention the two types of printers and two examples each
  115. Draw a computer Block diagram and explain the functions of parts using IPO operation.
  116. Draw a computer illustration naming at least five parts and their functions
  117. Explain why it's advised to connect the computer to the UPS?
  118. A surge protector attempts to regulate the voltage supplied to an electric device by either
  119. Mention four types of power fluctuation
  120. Mention five (5) Examples of utility programs.
  121. Write an essay to the other side of this paper. Please write a "FULL ESSAY" which contains introduction paragraph, body paragraphs and conclusion paragraph. Be careful with the organization of the essay. (15 pts.)
  122. Write an essay to discuss the negative and positive effects of computers to the young people.

123. Powder and liquid based fire extinguisher are not recommended to be used in computer laboratory. Give reasons why?
124. Mention six requirements of a Computer laboratory
125. Mention five factors which hindered effective communication
126. Describe four types of computer according to their physical size
127. what are the advantage of notebook PC over desktop PC
128. Difference between POST and booting
129. Difference between Num lock and caps lock
130. difference between backspace and delete
131. why it is important to place finger in home keys
132. why modern computer is referred as electronic device
133. explain four types of keying devices
134. list three factors to be considered before purchasing a computer
135. difference between application software and system software
136. distinguish between warrant and guarantee
137. state four computer system resource that are under the operating system
138. define the term "interrupt" in relation to the operating system process management

## CHEMISTRY

1. Choose and write the letter of the most correct answer among the given alternatives in the box beside each question
  - i) Which of the following sets of apparatus contains exact volume measuring items?
    - A. Pipette, burette, thermometer
    - B. Pipette, burette, measuring cylinder
    - C. Flasks, beakers and measuring cylinder
    - D. Conical flask, test tube and pipette
  - ii) A Bunsen burner flame is likely to contain soot when:-
    - A. The air hole is closed
    - B. The burner is not raised
    - C. The air hole is opened
    - D. The gas supply is high
  - iii) A solution is made by mixing
    - A. A solution and solution
    - B. A solvent and solution
    - C. A solute and suspension
    - D. A solvent and solute
  - iv) One isotope of an element has atomic number A and mass number M. How many neutrons are contained in the nucleus of its atom?
    - A. M
    - B. A
    - C. A-M
    - D. M-A
  - v) A gas was tested with a glowing splint and gave a pop sound. The gas was possibly
    - A. Nitrogen
    - B. Oxygen
    - C. Hydrogen
    - D. Chlorine
  - vi) Formation of water when hydrogen burns in oxygen shows that:-
    - A. Hydrogen is an element
    - B. Air supports combustion
    - C. Water is an oxide of hydrogen



- D. Water itself can burn
- vii) When a metal atom becomes an ion it  
 A. loses electrons  
 B. loses protons  
 C. gains neutrons  
 D. gains electrons
- viii) The arrangement of electrons in the atom of atomic number 15 may be represented as  
 A. 2:5:8  
 B. 2:8:5  
 C. 8:5:2  
 D. 8:2:5
- ix) The choice of the source of heat depends on the:-  
 A. Colour of the flame  
 B. Quantity of heat produced  
 C. Substance to be burned or boiled  
 D. Type and shape of flame
- x) Isotope are atoms of the same element that have different  
 A. Atomic number  
 B. Electronic arrangement  
 C. Mass number  
 D. Protons

2. 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 LIST A

| LIST A                                | LIST B   |
|---------------------------------------|--|
| i) .....Combustion                    | a) Is all that we can do to help an accident victim before we can get medical help in hospital |
| ii) .....Anhydrous copper II sulphate | b) Give out light and energy   |
| iii) .....Empirical formula           | c) Simplest formula that expresses its composition by mass                                     |
| iv) .....Transition elements          | d) One which expresses the actual number of atoms present in a molecule                        |
| v) .....First aid                     | e) Adds carbon dioxide to the atmosphere   |
| vi) .....Suspension                   | f) Used for testing the presence of water  |
| vii) .....Chromatography              | g) Forms coloured compounds and coloured solutions   |
| viii) .....Covalent bonds             | h) Chalk powder mixed with water   |
| ix) .....Oxygen                       | i) Formed by electron sharing  |
| x) .....Sublimation                   | j) Separation of dyes  |
|                                       | k) Number of neutrons in an atom   |
|                                       | l) 20% of the air  |
|                                       | m) Direct change from solid to gas   |
|                                       | n) Is a brown gas  |

### SECTION C (70 Marks)

Answer all questions in this section by filling the answers in blank spaces provided

3. a) Water is a compound while air is a mixture. Give three reasons to support this statement.

| Water is a compound because:- | Air is a mixture because:- |
|-------------------------------|----------------------------|
| i)                            |                            |
| ii)                           |                            |

|      |  |
|------|--|
|      |  |
| iii) |  |

- b) Write the formulae of the following compounds
- Sodium Carbonate.....
  - Copper (II) nitrate.....
  - Magnesium Sulphate.....
  - Nitric acid .....
4. In the process of water treatment for urban supply, mud must be removed and germs killed.
- Outline chemical substances used in the following steps
    - Sedimentation of mud.....
    - Killing of germs.....
  - Water is referred to as universal solvent because
  - Three physical properties of water are:-
5. a) State four points of old Dalton's atomic theory
- b) We normally use atomic numbers to identify elements. Why is it a bad idea to use the number of electrons for the same purpose?
- c) State the method used in separating each of the following mixtures
- Water and oil
  - Ink colour
  - Petrol and Kerosene
  - Pieces of iron and copper
6. a) Define the following terms
- An element
  - An ion
  - A radical
  - A structural formula
- c) Give the systematic (IUPAC) names for the following
- $\text{Fe}_2(\text{SO}_4)_3$ .....
  - $\text{N}_2\text{O}$ .....
  - $\text{HNO}_3$ .....
  - $\text{PbO}$ .....
  - $\text{Na}_2\text{S}_2\text{O}_3$ .....
- c) Write the chemical formula for the following compounds
- Limestone.....
  - Slaked lime.....
  - Caustic soda.....
  - Quicklime.....
7. a) An element Z forms a chloride of the formula  $\text{ZCl}_4$ . Determine the valency of Z. Write down two possible electronic configuration of Z in the first 20 elements in the periodic table of elements
- Calculate the masses of the mentioned possible elements in 7 a) ii) above.
  - Write the formula of the oxide of Z
- b) Define the term isotopes
- c) If an element X consists of 99.76% of  $^{16}\text{X}$ , 0.04% of  $^{17}\text{X}$  and 0.2% of  $^{18}\text{X}$ . Calculate the relative atomic mass of X and state what is element X?
- a) Define the following terms
- Molecular formula

- ii) A molecule
- d) A compound has a molecular mass of 286g and has the following composition by mass:- Sodium 16.1%; Carbon 4.2%; Oxygen 16.8% and water of crystallization 62.9%. Calculate
- Its empirical formula
  - Its molecular formula
- e) Calculate the oxidation number of the underlined elements:-
- $\underline{\text{S}}\text{O}_4^{2-}$
  - $\text{K}\underline{\text{Cl}}\text{O}_3$
  - $\underline{\text{N}}\text{H}_4^+$
8. a) What is a chemical bond?
- b) (i) Show clearly how bonding occurred in (CaO) calcium oxide.
- (ii) If you had two gas jars, one containing hydrogen gas and other oxygen. How do you distinguish them by simple chemical tests?
- c) State how oxygen may be converted to
- Acidic oxide
  - Basic oxide

9. a) Define the term flame
- b) With the aid of a labeled diagram of a Bunsen burner, briefly explain how it works
- a labeled Bunsen burner
  - How it works
- c) Differentiate luminous flame from non-luminous flame

| Luminous flame | Non- luminous flame |
|----------------|---------------------|
| i)             |                     |
| ii)            |                     |
| iii)           |                     |
| iv)            |                     |
| v)             |                     |

10. (a) By giving one example in each case define the following terms

- Mixture
- Solution

- b) Define the following terms

- Alloying
- Galvanization

- c) Write down three conditions necessary for rust to occur

11. a) Define

- An atom
- A molecule

- b) Write down the symbols for

- Hydrogen atom
- Chlorine molecule

- c) Write down the formula of the following compounds

- Aluminium oxide
- Calcium oxide

- iii) Iron (iii) sulphate
12. a) What is matter?  
 b) Write the names of the following processes of changing matter from one state to another.  
 i) Solid to gas  
 ii) Gas to solid  
 c) Find the oxidation number of the underlined elements in the following formula of compounds  
 i)  $\text{CuSO}_4$   
 ii)  $\text{SO}_4^{2-}$   
 iii)  $\text{Na}_3\text{PO}_4$
13. a) What do you understand by the term isotope?  
 b) If sample x consists of 99.76% of  $^{16}\text{x}$ ; 0.04% of  $^{17}\text{x}$  and 0.2 of  $^{18}\text{x}$ ; calculate the relative atomic mass of x.  
 c) Give the systematic (IUPAC) names for the following compounds  
 i)  $\text{N}_2\text{O}_3$   
 ii)  $\text{NH}_3$   
 iii)  $\text{CuO}$
14. a) Using a large and well labeled diagram show the laboratory preparation of oxygen by thermal Decomposition of potassium chlorate.  
 b) Write a balance chemical equation for the chemical reaction taking place in 7(a) above.  
 c) List down four uses of oxygen gas.
15. a) Define  
 i) Empirical formula  
 ii) Molecular formula  
 b) A certain compound contains 22.7% of zinc, 11.0% of sulphur, 22.3% of oxygen and the rest being water of crystallization. Calculate.  
 i) Empirical formula  
 ii) Molecular formula of a compound if its molar mass is 287g  
 c) State the number of moles of water of crystallization in the compound
16. The rows of the periodic table are called:  
 a) Classes                      c) group  
 b) Periods                      d) Family
17. The scientist credited with devising the first periodic table similar to the one we use today was:  
 a) John Dalton                      c) Ernest Rutherford  
 b) Dmitri Mendeleev                      d) Gregory Mendel
18. The primary difference between the modern periodic table and Mendeleev's periodic table is:  
 a) The two tables are the same except we know about more elements now  
 b) Mendeleev's table did not arrange the elements according to recurring trends in their properties.  
 c) The elements in the modern table are arranged in order of increasing atomic weight.  
 d) The elements in the modern table are arranged in order of increasing atomic number.
19. As you move from left to right across the periodic table:  
 a) atomic radius decreases                      c) ionization energy decreases  
 b) atomic radius increases                      d) electronegativity decreases
20. As you move from top to bottom down the periodic table:  
 a) a change in atomic radius cannot be predicted  
 b) atomic radius decreases                      c) electronegativity decreases  
 d) ionization energy increases
21. Which of the following are all properties of non-metals?  
 a) usually donate electrons easily, typically brittle in the solid form, poor conductors of heat

- b) usually gain electrons easily, poor conductors of heat, poor conductors of electricity  
 c) usually gain electrons easily, good conductors of heat and electricity  
 d) usually donate electrons easily, metallic lustre, good conductors of heat
22. Which of the following element groups are considered types of metals?  
 a) basic metals only  
 b) basic metals, transition elements, halogens  
 c) transition elements, basic metals, alkali metals, alkaline earths, halogens  
 d) transition elements, basic metals, rare earths, alkali metals, alkaline earths
23. Where would you expect to find the smallest atoms of elements in the periodic table?  
 a) top and left hand side    c) bottom and left hand side  
 b) top and right hand side    d) bottom and right hand side
24. Electron affinity reflects the ability of an atom to accept an electron. Electron affinity is the energy change that occurs when an electron is added to a gaseous atom. Which is true of the Group IIA elements, the alkaline earths?  
 a) No generalization can be made about electron affinity for this element group.  
 b) The alkaline earths have low electron affinity values.  
 c) The alkaline earths have high electron affinity values.
25. With respect to electron affinity, which statement applies to the halogens?  
 a) The halogens have low electron affinity values.  
 b) The halogens have high electron affinity values.  
 c) No generalization can be made about electron affinity for this element group.
26. Answer the questions that follows with reference to the below part of the periodic table

| Group    | I  | II | III | IV | V | VI | VII | VIII |
|----------|----|----|-----|----|---|----|-----|------|
| Period 2 | Li | Be | B   | C  | N | O  | F   | Ne   |
| Period 3 | Na | Mg | Al  | Si | P | S  | Cl  | Ar   |

- a) Give the symbol for an element, different in each case which  
 i) Reacts with cold water, liberating hydrogen  
 ii) displaces bromine from potassium bromide solution  
 iii) is an alkaline earth metal  
 iv) has a molecular structure  
 v) has a giant structure  
 vi) does not react with hydrogen, oxygen or chlorine  
 vii) burns in air to form a solid oxide which is acidic in water  
 viii) burns in air to form a solid oxide which is basic in water  
 ix) Is extracted from its natural source by electrolysis  
 x) Occurs naturally in two crystalline form
- b) What name is usually given to the elements in  
 i) Group I    ii) Group VII and    iii) Group O
- c) Give the formula of compounds formed by combination of  
 i) Al and O    ii) Be and F    iii) Si and Cl    iv) Mg and N
- d) Give the symbols of two elements which when combined together give a compound with  
 i) an ionic structure  
 ii) a molecular structure  
 iii) A giant molecular structure. And name the compound in each case.
27. From the periodic table below:-

|    |    |  |  |  |    |  |  |  |  |  |  |    |    |   |    |    |    |
|----|----|--|--|--|----|--|--|--|--|--|--|----|----|---|----|----|----|
| H  |    |  |  |  |    |  |  |  |  |  |  |    |    | H | He |    |    |
| Li | Be |  |  |  |    |  |  |  |  |  |  | B  | C  | N | O  | F  | Ne |
| Na | Mg |  |  |  |    |  |  |  |  |  |  | Al | Si | P | S  | Cl | Ar |
| K  |    |  |  |  | Cr |  |  |  |  |  |  |    |    |   | Br |    |    |

- a) Choose the largest atom  
 b) Explain why the position of H can be above Li or F

- c) Which symbol represents a transition metal?
- d) How many non-metals are there among the elements shown here?
- e) Choose the element which would contain most atoms in 100g of sample. Explain your answer
- f) Why does Ar not form any compound?
- g) Explain why the Ar atom is heavier than the Ne atom
- h) Give 2 reasons for believing that Si is neither a true metal nor a true non-metal
- i) Give electronic structure of O and S
- j) Give the formula of an ion with an electronic structure 2:8 that is
- i) negatively charged ii) Positively charged
- k) Under which elements would you place the following?
- i) Calcium ii) Krypton iii) Iodine
- l) Explain using electronic structures why an atom of lithium combines with only one atom of chlorine, where as an atom of magnesium combines with two chlorine atoms. Explain what causes them to become crystalline solids.
- m) Using dots ■ and crosses X to represent electrons, draw a diagram of the compound between P and H. In what state would you expect the compound to be at room temperature? Explain your answer.
28. Explain in terms of nuclear charge why the  $K^+$  ion is smaller than the  $Cl^-$  ion, though they have the same number of electrons?
29. Briefly explain on the following statements:-
- a) Why does an arrangement of elements in order of increasing atomic number constitute a periodic table?
- b) Why are the elements of group I of a periodic table known as alkali metals?
- c) The elements F, Cl, Br and I are described as halogens. What does this mean and why is it applied to these elements?
- d) Give three reactions of group I elements or its compounds in which all members of the group behave similarly.
- e) Almost all naturally occurring iron on earth exists as Iron (III) whereas the sample found on the moon is mainly Iron (II). Explain.
30. The elements X, Y, Z are in the same period of the periodic table. Give the order of the elements in increasing atomic number given that:-
- a) The oxide of X is acidic, that of Y is amphoteric and that of Z is basic
- b) X has a giant molecular structure, Y is a metallic and Z is a molecular
- c) What is the pattern of atomic radius in ascending order, from the reaction in a) above?
- d) What is the pattern of ionic radius in ascending order, from the reaction in b) above?
- e) Name suitable examples for elements X, Y and Z from their properties in:-
- i) Part a) above
- ii) Part b) above
31. The element chlorine has two isotopes with mass number 35 and 37. An accurate value of the relative mass of normal chlorine is 35.5. Which isotope Cl-35 or Cl-37 do you consider to be more abundant and why?
32. Natural Boron is a mixture of two isotopes 20%  $^{10}B$  and 80%  $^{11}B$ . Use these figures to find the relative atomic mass of Boron.
33. The relative atomic mass of neon which consists of the isotopes  $^{20}Ne$  and  $^{22}Ne$  is 20.2. What is the % of  $^{20}Ne$  atoms in the isotopic mixture?
34. a) What is meant by the term Isotope?
- b) The element Bromine exists in two isotopes  $^{79}_{35}Br$  and  $^{80}_{35}Br$
- i. What do the numbers (79, 35) and (80, 35) represents?
- ii. Complete the table below

| Number of | Protons | Electrons | Neutrons |
|-----------|---------|-----------|----------|
| Br-79     |         |           |          |

|                       |  |  |  |
|-----------------------|--|--|--|
| Br-80                 |  |  |  |
| Br <sup>-</sup> (ion) |  |  |  |

- iii. In what aspects do the two atoms differ? State why the two isotopes have the same chemical properties?

35. You are required to answer all questions in this section. Write down the letter of the most correct answer in the box provided in each question.

- (i) One of the following set of apparatus is used to measure a fixed volume of liquid ☐
- pipette, burette and measuring cylinder
  - aspirator, Liebig condenser and dropper
  - Beaker, test tube and conical flask.
  - conical flask, round bottom flask and flat bottom flask
- (ii) A substance which absorbs water/moisture from the atmosphere and forms a solution is called.
- Efflorescent
  - Amphoteric
  - Hygroscopic
  - Deliquescent
- (iii) In chemistry experiments test
- data
  - problem
  - Hypothesis
  - observation
- (iv) In any chemical change
- Energy is created
  - Energy is either absorbed or given out
  - Energy is changed
  - Energy is neither liberated nor absorbed.
- (v) One isotope of an element has atomic number A and Mass number M. How many Neutrons are contained in the nucleus of its atom?
- M
  - A
  - A-M
  - M-A
- (vi) The reaction that takes place when limestone is heated in the laboratory can be described as
- Combination
  - decomposition
  - replacement
  - double decomposition
- (vii) Some acidic substance are well known even to non chemist, which one of the following is not acidic?
- Sour milk
  - unripe lemon and pepper
  - Vinegar from sour milk
  - rancid butter and cheese
- viii) The process of chlorination in water aims at
- killing micro organisms
  - removing bad odours
  - forming suspension
  - syrup making
- ix) A solution of pH 1.5 is best described as
- weak acid
  - weak base
  - strong base
  - strong acid
- x) A group seven element are known as
- Alkali metal
  - transition metals
  - Alkaline earth metals
  - halogens

36. You are provided with two list A and B. Choose a word(s) from list B which matches the statement in list A and write its letter against the appropriate statement in the space provided.

| LIST A  | LIST B                 |
|---|------------------------|
| i) ..... Loses water of crystallization at room temperature       | A. Strong acid         |
| ii) .....normal salt  | B. Oxygen              |
| iii) ..... Absorb moisture and become wet.                        | C. Covalent            |
| iv) .....is used in extinguish fire.                              | D. Efflorescent        |
| v) .....a tendency for one element to exist in more than one form | E. Oiling and alloying |
| vi) .....prevent rusting of iron                                  | F. Hard water          |
| vii) .....presence of calcium and magnesium sulphate in water     | G. Carbon dioxide      |
| viii) .....a bond is formed by electron sharing                   | H. Electrovalent       |
| ix) .....burning in air   | I. Deliquescent        |
| x) .....ionized completely.                                       | J. Zinc sulphate       |
|   | K. Hygroscopic         |
|   | L. Allotropy           |
|   | M. Isotopy             |

37. Write all the answers in the space provided for each question.

38. (a) Draw a well labeled diagram for the preparation of oxygen in the laboratory by using  $\text{KClO}_3$  and  $\text{MnO}_2$

(b) What is the importance of  $\text{MnO}_2$  in the reaction above?

(c) Oxygen is collected by down wards displacement of water. Briefly explain why this method is used?

39. Study the following table carefully.

| ELEMENT | ATOMIC NUMBER |
|---------|---------------|
| P       | 1             |
| Q       | 8             |
| R       | 11            |
| S       | 17            |
| T       | 12            |

a) Write the electronic configuration of element P, Q, R, and T

b) Write the valency of each of element P, Q, R, and T?

c) Write well balance chemical equation and name the types of bonds found in the compound formed when each of the following react.

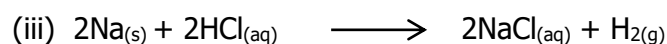
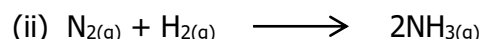
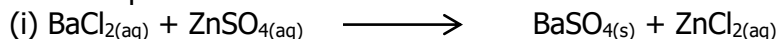
i) Q and R

ii) P and T

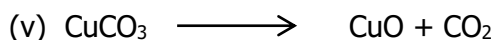
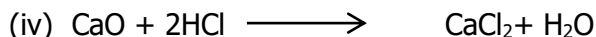
iii) P and Q

iv) T and Q

40. (a) Classify each of the following chemical equation as displacement, combination, neutralization, decomposition or double decomposition.







(b) Write down ionic equation of the following reaction

- i. The reaction of Barium chloride and sodium Sulphate solution
- ii. The reaction of dilute hydrochloric acid and calcium carbonate

41. (a) Which method would you use to separate each of the following mixture.

- (i) Water mixed with Kerosene
- (ii) Iron powder mixed with sand
- (iii) Ammonium chloride crystals mixed with sodium chloride crystals.
- (iv) Water mixed with alcohol

(b) Differentiate between compound and mixture

42. (a) Define empirical formula

(b) A compound M is composed of 52.2% carbon, 13% hydrogen and rest is oxygen. If the molecular mass of M is 46.

- (i) Calculate empirical formula
- (ii) Calculate the molecular formula

43. (a) Differentiate between the following giving an example in each case

- (i) Solute and solvent
- (ii) Hygroscopic and deliquescence

(b) Write down 4 properties of an acid

44. (a) Mention any four Laboratory rules

- (b) (i) Why is Hydrogen gas used in filling balloons.
- (ii) When an iron bar was left outside for the nights its color changed into red brown. Give a reason.

45. (a) Define the term

- (i) Acid
- (ii) Base

(b) Find the oxidation number of the following underlined elements.

- (i)  $\underline{\text{S}}\text{O}_4^{2-}$
- (ii)  $\underline{\text{S}}\text{O}_3^{2-}$
- (iii)  $\underline{\text{O}}\text{H}^-$
- (iv)  $\underline{\text{K}}\text{ClO}_3$

(b) State four validity of the Dalton's Atomic Theory.