

Form 3: Biology Holiday Assignment.**Answer All The Questions.**

1. Explain how plant and animal cells are suited to perform their functions. (10mks)
2. Describe the structure and functions of various cell organelles. (10mks)
3.
 - a) What is cell physiology? (1mk)
 - b) State three physiological processes that occur in body cells of plants and animals. (3mks)
 - c) Outline the physiological changes that occur in the body when a man takes a lot of water the later after 30 minutes takes concentrated salt solution. (10mks)
4.
 - a) Explain the adaptations of the leaf to its function. (10mks)
 - b) Describe the Process of photosynthesis. (10mks)
5. A student had a meal of boiled beans and maize in the dining hall. Discuss the digestion of these food along the alimentary canal until it is absorbed in the small intestine. (20mks)
6. Describe the nitrogen cycle. (20mks)
 - a) Discuss the mechanisms that hinder self-pollination and fertilization in flowering plants. (10mks)
 - b) Describe the process of fertilization in flowering plants. (10mks)
7. Giving relevant example, explain how seeds and fruits are adapted to various modes of dispersal. (20mks)
8. Describe how the mammalian female reproductive system is adapted for its function. (20mks)

Form 3: Business Studies Holiday Assignment

1. State the use of a cash book in business organization.
2. Explain the term “contra entry”
3. Give the meaning of the following terms:
 - a) Trade discount
 - b) Cash discount
4. State why the three- column cash book is both a ledger as well as a book of original entry.
5. Differentiate between a two-column cash book and a single column cash book.
6. Enter the following transactions in a two column cash book for the month of March 2015.

- | | |
|-----------|--|
| March 1 | Balance of cash in hand sh. 21,000 and cash at bank sh. 35000. |
| March 3. | Sold office furniture sh. 3900 in cash. |
| March 4. | Made sales worth 8,400 receiving payment by cheque. |
| March 5. | Withdrew sh. 15,000 from the bank for business use. |
| March 8. | Purchased stationary sh. 1,500 in cash. |
| March 10. | Received sh. 6000 in cash from James. |
| March 11. | Deposited sh. 9,300 from the cash till in the business bank account. |
| March 14. | Bought goods for sh. 14,000 paying Sh. 9000 by cheque and sh.5000 in cash. |
| March 17. | Received a cheque of sh. 8000 from kitumo |
| March 21. | Sold goods sh. 5,600 receiving the money by cheque |
| March 23. | Withdrew sh. 1,800 for personal use from the bank. |
| March 29. | Paid rent by cheque sh. 1600. |
| March 30. | Paid electricity sh. 800 in cash. |

NB. Entry Exam includes all what you have learnt and holiday assignment.

Form 3: Devoir Pour Les Vacances**A. EXPRESSION ORALE/ECRITE
RECHERCHE**

Faites la recherche sur les sujets suivantes et préparez les notes.

1. L'abus de drogue au Kenya
 - Quelles sont les drogues abusées ?
 - Pourquoi les jeunes abusent-ils des drogues ?
 - Comment peut-on éviter le problème de l'abus de drogue chez les jeunes ?
2. Le SIDA
 - C'est quoi le SIDA ?
 - Comment attraper cette maladie ?
 - Quelles sont les effets de SIDA ?
 - Comment éviter ?
3. L'environnement
 - De quoi consiste l'environnement ?
 - Comment l'homme détruit-il l'environnement ?
 - Que peut-on faire pour conserver l'environnement ?
4. La pollution
 - Les types de pollution
 - Les causes de pollution
 - Comment éviter les problèmes de pollution ?
5. La nouvelle technologie
 - De quoi s'agit-il de la nouvelle technologie ?
 - Quels sont les effets (négatifs/positifs) de la nouvelle technologie dans la vie quotidienne
6. Quelle est l'importance d'étudier le français au Kenya ?
7. Les accidents de la route. - Les causes et les conséquences.

B. EXPRESSION ECRITE

1. Vous êtes au chômage. Vous avez vu une annonce où on cherche un guide touristique parlant français dans le journal « Standard ». Ecrivez une lettre de motivation.
2. Votre ami(e) sénégalaise(e) visite votre pays pour la première fois. Préparez l'itinéraire pour son séjour.

GRAMMAIRE ET COMPREHENSION ECRITE**Form 3: English Holiday Assignment**

1. Imagine you are the secretary of the Christian Union in your school. Your group has just held its end of year meeting. Write minutes of the meeting based on the following notes: there were 12 members present; 2 were absent and 3 sent apologies. The patron attended accompanied by the teacher on duty.
2. Describe short forms in Oral literature and give examples in each.
3. How do you capture the attention of your audience during a speech presentation?

Form 3: History Holiday Assignment**The Rise of African Nationalism**

1. Name the political party that was founded by Kwame Nkrumah in 1949. (1mk)
2. a) State five factors that led to the growth of nationalism in Ghana. (5mrks)
b) Describe the methods used by African nationalists to fight for political liberation in South Africa (10mrks)
3. State two reforms that were introduced by Garfield Todd the prime minister of Zimbabwe in 1953. (2mks)
4. Identify the political party that led Ghana to independence in 1957. (1mk)
5. a) Give three challenges faced by the Ghanaian nationalists in the struggle for independence. (3mks)
b) Describe methods used by the Nationalists in Ghana to Struggle for their independence. (12mks)
6. State two grievances of the African national congress (ANC) against colonial regime in South Africa up to 1939. (2mks)
7. What were the responses of white racist government to Africa nationalist's demands in South Africa. (7mks)
8. Name the political party that secured independence for Ghana (1mk)
9. Apart from ANC name **one** other political party that fought for independence in South Africa. (1mk)

10. Identify the political party which won independence for Ghana in 1957. (1mk)
11. a) Mention five ways in which President Nyerere of Tanzania assisted the liberation movement in Mozambique. (5mks)
- b) Explain five challenges that faced the liberation movement in Sout

Form 3: Home Science Holiday Assignment

1. State three ways of introducing raising agents into flour mixtures. (6 mks)
2. Describe two causes of each of the following common faults in pastry making. (6 mks)
 - a) Too short and crumbly pastry
 - b) Pastry is rough or flaky in appearance
 - c) Shrunken cooked pastry
3. Explain five points to observe when making pastry using yeast dough. (10mk)
4. Discuss three reasons for using liquids in flour mixtures. (6 mks)
5. State four qualities of a well-cooked cake. (4 mks)
6. Explain three conditions necessary for proper functioning of yeast in flour mixtures. (6 mks)
7. Identify six ways of finishing the frill of a dress. (6 mks)
8. List six types of fasteners. (3 mks)
9. Explain four rules to observe when choosing and mixing fasteners. (8 mks)
10. Mention the two types of button hole. (2 mks)
11. State three qualities of a well attached hook and eye. (3 mks)
12. State four principles of wise buying. (4 mks)
13. Explain five factors that influence consumer buying. (10mk)
14. Discuss three disadvantages of credit cards. (6 mks)
15. Give three reasons why a consumer would buy second hand clothes. (3 mks)
16. Mention five factors that influence how you spend your pocket money at the school canteen. (5 mks)
17. Define the following terms: (6 mks)
 - a) Budget
 - b) Expenditure
 - c) Income
18. Explain three points on the importance of budgeting. (6 mks)

Form 3 (Kidato Cha Tatu): Kazi Ya Likizo

1. TUMBO LISILOSHIBA

Andika matini zilizosalia katika hadithi zote(kutegemea hadithi zilizosalia darasani)

2. CHOZI LA HERI (ASSUMPTA MATEI)

Soma riwaya ya chozi la heri naye Assupta matei uielewe kikamilifu mtiririko wa ploti katika kila sura kisha:

- a) **Uandike mukhtasari** wa masuala muhimu katika **kila sura** .

TANBIHI:

- Mukhtasari huu uandikwe bila **kutumia mwongozo wowote** (soma uelewe kisha uandike mambo makuu yanayojitokeza katika kila sura endapo utatumia mwongozo **utairudia kazi hii turudipo** shuleni mwaka ujao)
- Mtihani wa kiingilio 2019 utakuwa **Karatasi ya 102/3**
- Mwaka ujao hatutaisoma riwaya hii darasani bali wanafunzi wenyewe watashiriki kuichambua darasani.
- Swali la **LAZIMA** litakuwa la **CHOZI LA HERI**

Form 3: Music Holiday Assignment**1. DANCES**

a) Name the communities associated with the following dances:

- i) Owalo
- ii) Gicukia
- iii) Egetemo
- iv) Vugo

b) Identify at least one instrument used in accompanying the above dances.

c) State the age groups that normally perform the above dances

2. i) Outline three positive influences that modern technology has had on African music.

ii) Mention two methods used in naming dances in African communities giving an example in each case.

iii) Outline three aspects of socio-cultural traditions which are always reflected in an African Traditional dance.

iv) Give two reasons why African melodies are usually short and repetitive.

3. a) Explain Orlando di Lassus musical background.

b) Mention any two areas Orlando composed giving an example.

c) List down any three contributions Orlando made to the music of his time.

d) Identify any two characteristic features found in the music of his time.

4. a) Write Beethoven's names in full.

b) Give the names of any four composers who influenced his style of writing in early years.

c) Give the title of one major work he composed in his second period.

d) Name any five areas he composed.

e) Explain the sections of sonata as a musical form.

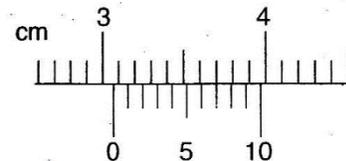
f) Explain the following:

- i) Madrigal
- ii) Leitmotif
- iii) Lied
- iv) Coda
- v) Chanson

vi) Programme music

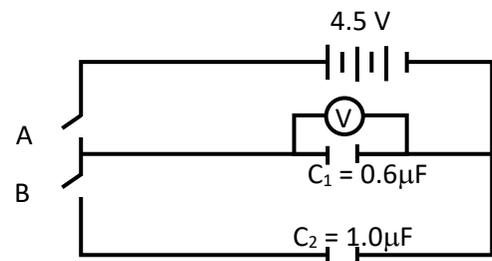
**Form 3: Physics Holiday Assignment
Term 3 2018.**

1. A Vernier calipers was used to measure the length of the side of a dice. A section of the vernier calipers is shown in Figure 1. Determine the reading on the instrument. (1mrk)



2. Two samples of bromine vapor are allowed to diffuse separately under different conditions, one in a vacuum and the other in air. State with reasons the conditions in which bromine will diffuse faster

3. The Figure 2 below shows a circuit where a battery of e.m.f. 4.5V, switches A and B, two capacitors $C_1 = 0.6\mu\text{F}$ and $C_2 = 1.0\mu\text{F}$ and a voltmeter are connected.



a) Determine the charge on C_1 when switch A is closed and switch B is open. (2mrks)

b) Determine the effective capacitance when both switches are closed. (2mrks)

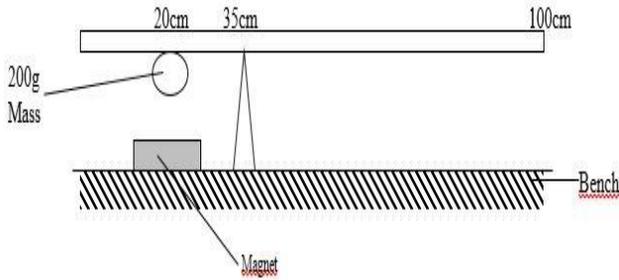
4. State Newton's first law of motion. (1mrks)

5. Give two reasons why optic fibers are preferred over copper cables in telecommunication. (2mrks)

6. If the soft iron armature in an electric bell is replaced with a steel one, the bell rings once and stops while current continues to flow. Explain this observation. (1mrk)

7. A uniform meter rule of mass 0.4kg has an iron mass fixed at the 20cm mark is balanced when pivoted at

the 35cm mark by an attractive force due to a magnet fixed on a bench below the mass as shown in Figure 3 below. Determine the attractive force due to the magnet given that the iron has a mass of 200g.



8. a) State Fleming's left hand rule. (1mrk)

b) Figure 4 below shows a conductor in a magnetic field. Given that the field is out of the paper, indicate on the diagram the direction of the resultant force on the conductor. (1mrk)

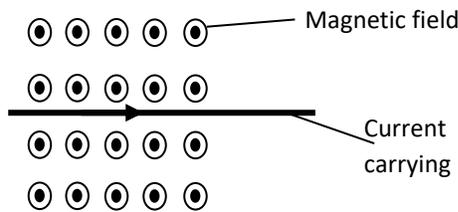


Figure 4

9. State any one condition for the interference of waves to occur. (1mrk)

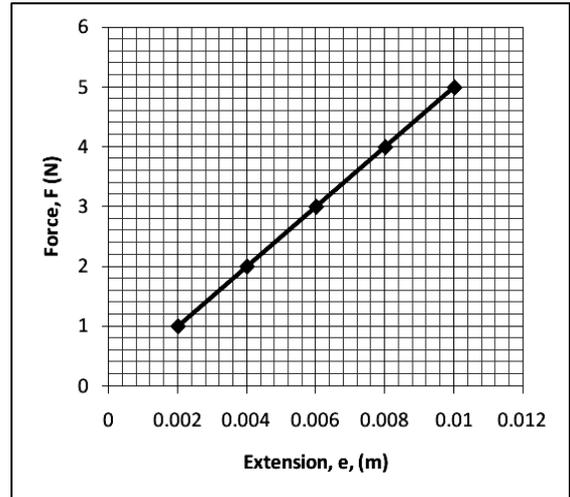
10. State and explain one advantage of fitting wide tires on vehicles that move on earth surface such as tractors.

11. Two identical plastic containers were painted one dull black and the other silvery. They were partially filled with equal amount of water and completely sealed then left in the sun for some time.

a) State the observation that was made after some time. (1mrk)

b) Explain the above observation. (2mrks)

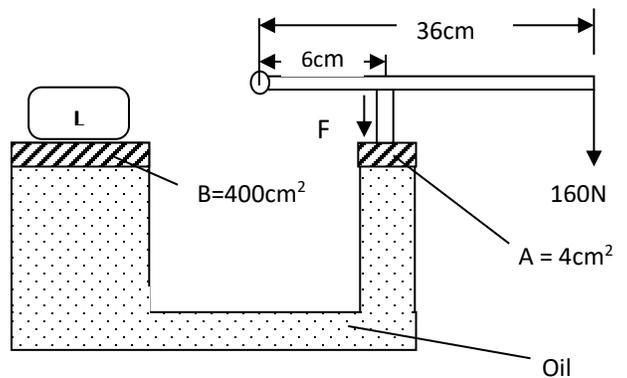
12. The graph below shows the relationship of force against extension of a certain helical spring made of steel. Use it to answer the questions that follow.



a) Calculate the spring constant. (3mrks)

b) State one factor that affects the spring constant obtained in (a) above (1mrk)

13. a) Figure 8 Shows a hydraulic lift used to raise a load 'L'. The effort applied is 160N at the end of the lever 36cm long and pivoted at the other end. The plunger is 6cm from the pivot. The area of the plunger A is 4cm² and that of piston B is 400cm².



Determine:

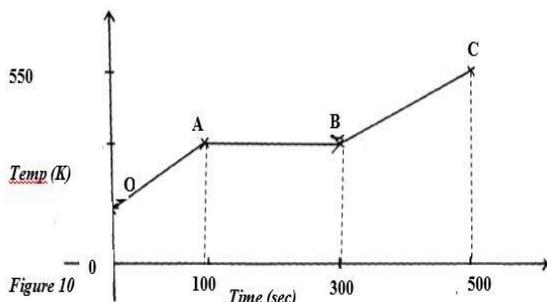
i) The value of force F_1 extended by the plunger on oil. (2mrks)

ii) The value of the load L . (2mrks)

iii) The velocity ratio of the lever. (2mrks)

iv) The velocity ratio of the hydraulic lift (2mrks)

v) Combined velocity ratio of the system. (2mrks)



vi) Efficiency of the system. (2mrks)

vii) 200g of a solid was uniformly heated by a 0.2 kW heater for some time. The graph in below shows how the temperature of the solid changed with time.

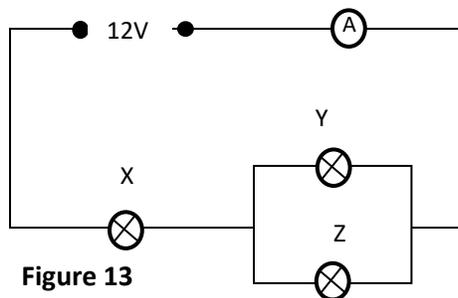
14. i) Explain what is happening between;

I. O and A (1mrk)

II. A and B (1mrk)

ii) Calculate the specific heat capacity of the solid. (3mrks)

15. Figure 13 below shows how a student set up a circuit using 3 identical bulbs X, Y and Z each rated "12V, 2.0A"



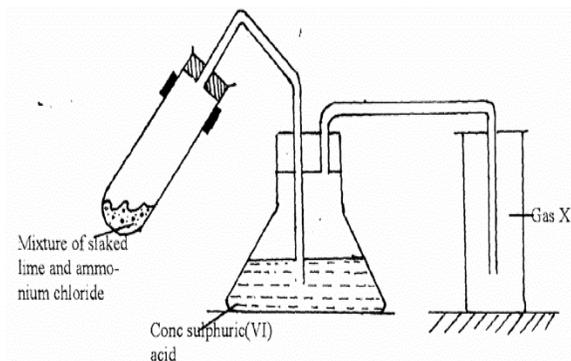
a) When operating normally, calculate the resistance of one of the bulbs. (2mrks)

b) Calculate the effective resistance of the three bulbs. (2mrks)

c) Determine what the ammeter reading. (2mrks)

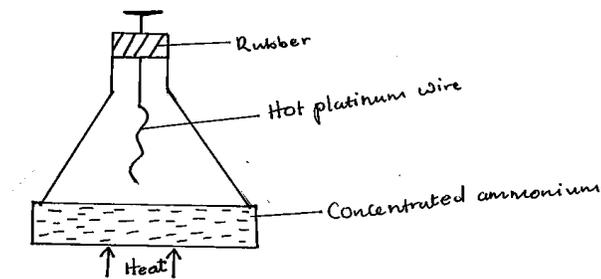
Form 3: Chemistry Holiday Assignment Term 3 2018.

1. The set up below was used by Mr. Owino's class to prepare gas X.



Identify three mistakes in the set up

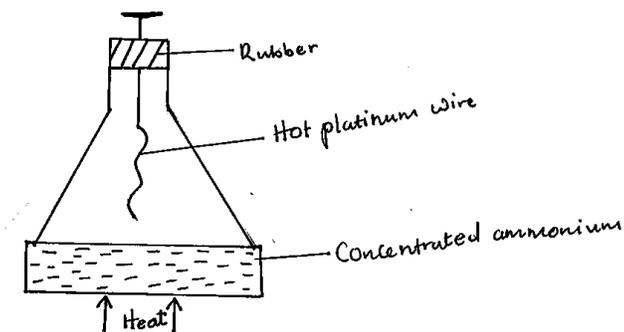
2. The diagram below shows an investigation on a property of ammonia gas.



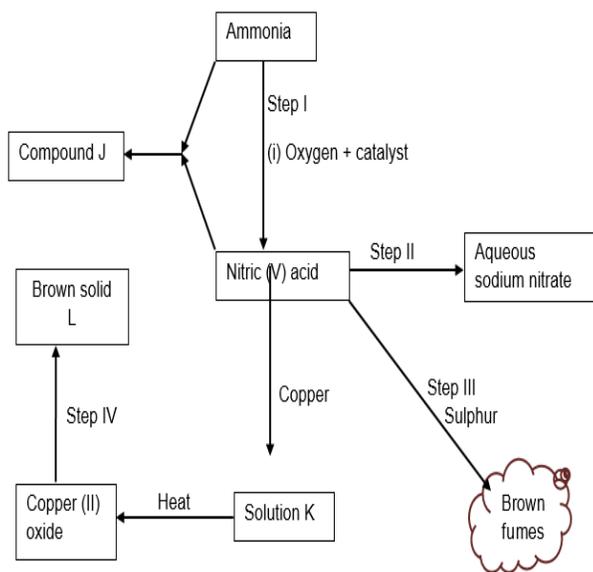
a) The platinum wire is observed to glow. **Explain** the cause of that observation.

b) **State** the observations made when the rubber bang is removed.

c) Ammonia gas is oxidized by air to nitrogen (ii) oxide when in contact with heated platinum. The apparatus set-up for this reaction is shown in the diagram below.



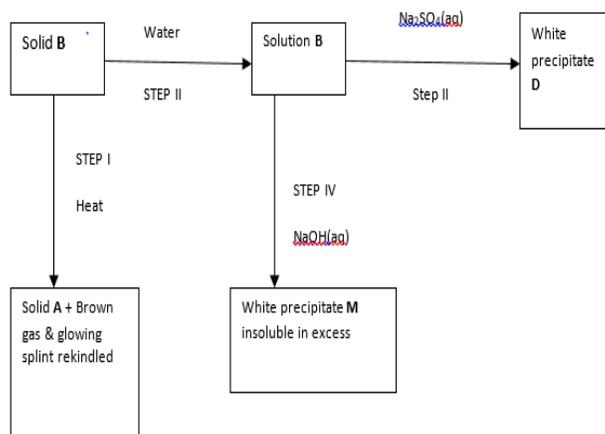
- Write a balanced equation for the reaction taking place in the conical flask
 - The spiral end of the platinum wire is first heated and quickly hanged inside the conical flask. The wire remains hot throughout the reaction even without further heating. Explain
 - Platinum wire acts as a catalyst in reaction in (a) above. Ammonia gas readily burns in an atmosphere enriched with oxygen in the absence of a catalyst. Write a balanced equation for this reaction.
3. The reaction scheme shows various reactions starting with ammonia. Study it and answer the questions that follow



- Name the raw materials used for the manufacture of ammonia.
- Write an equation for the reaction that occurs between ammonia and oxygen in step I.

- Name the process that takes place in step II.
- Explain how the reaction in step III takes place.
- Name:
 - A gas that can be used to carry out step (IV)
 - A substance that can be added to solution K to form solid L directly.
- Write the formula of compound J.
 - Calculate the mass of compound J that would contain 140kg of nitrogen. (R.A.M. N=14, O=16 H=1)
 -

4. The flow chart shown below depicts a series of reaction



- What inference can be made from STEP III alone
- Write the formula of the anion present in solid B.
- What type of compound is solid A
 - State two physical properties of solid A
- 1.344dm³ of the brown gas was obtained when 5.22g of solid B was heated until no further change. Determine the relative formula mass of B and the relative atomic mass of the cation present in B
- Nitric acid is stored in dark bottles. Explain
 - Nitric acid obtained from Ostwald's process has 67% by weight and a density of 1.41g/cm³. Calculate the molarity of the nitric acid (R.A.M; H=1,N=14,O= 16)

- ii) Describe how the molarity of nitric acid can be increased
- f) When ammonia gas is dissolved in water the resultant solution contains two types of ions.
- g) Name and write the formula of the ions present.
- h) Draw a dot and cross diagram for each of the ion present.

Form 3: CRE Holiday Assignment
Term 3 2018.

Selected Aspects Of African Religious Heritage

The African concept of God, Spirits and Ancestors.

1. a) What was the role of ancestors in Traditional African Communities?
b) Give the occasions when sacrifices were offered in Traditional African communities.
c) State **six** aspects of traditional religion which have been integrated into the Christian faith
2. Mention the roles of diviners in Traditional African Communities.
3. Explain how people in the Traditional African Community prevented calamities from befalling them.
4. a) Outline **six** roles of diviners in Traditional African society.
b) Explain **four** reasons which made traditional African communities to offer sacrifices.
c) Give **six** ways the Traditional Africans used to maintain their relationship with the ancestors
5. a) State **seven** roles of the Ancestors to the living in Traditional African Communities.
b) Write down **seven** teachings about God from the Traditional African myths of creation .
6. a) Identify **six** causes of death in the Traditional African Community
7. Explain how Africans demonstrated their belief that death was not the end of life

8. a) Describe how God punished people in African Traditional Society.
b) Identify **seven** traditional African practices which demonstrated their belief in God.
9. Outline **five** African understanding of evil.
10. Write down **seven** ways in which Traditional African communities demonstrated their respect towards the Ancestors.
11. a) Outline ways through which Africans venerated their ancestors
b) Explain how a Christian can show patriotism during the recent post-election chaos

Form 3: ART Holiday Assignment
Term 3 2018.

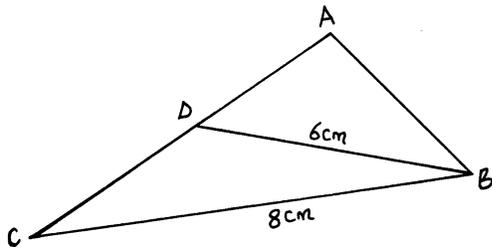
1. Summarise all your notes.
2. **Sculpture**
Create a high relief sculpture using papier mache'. It should be 15cm by 20cm in length and width and not more than 10cm high. Use the modelling technique.

Form 3: Computer Holiday Assignment
Term 3 2018.

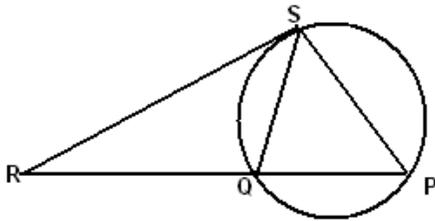
1. Identify three elements that make up a DBMS.
2. Compare the advantages and disadvantages of a DBMS.
3. Describe the functions of a DBMS.
4. Describe what spreadsheet and database software are and what each is used for.

Form 3: Mathematics Holiday Assignment
Term 3 2018

- Two of the interior angles of a polygon are 95° and 115° . The rest are 150° each. How many sides does this polygon have? (3 marks)
- Find the value of x that satisfy the equation
 $\text{Log}(x + 5) = \log 4 - \log (x + 2)$ (3mks)
- Given that $\triangle ABD$ is a similar triangle to triangle ACB . $\angle ABD = \angle ACB$. Calculate the length AC . (2mks)



- Given that $\cos \theta = \frac{15}{17}$ and $0^\circ \leq \theta \leq 360^\circ$. Find without using tables or calculator the value of $\sin \theta$ and $\tan(90 - \theta)$ (3 marks)
- In the figure below RS is a tangent to the circle at S and PQR is a straight line. If $PQ=8\text{cm}$, $QR=x-2\text{cm}$ and RS is $x\text{cm}$, **Calculate** the value of x . (3mks)



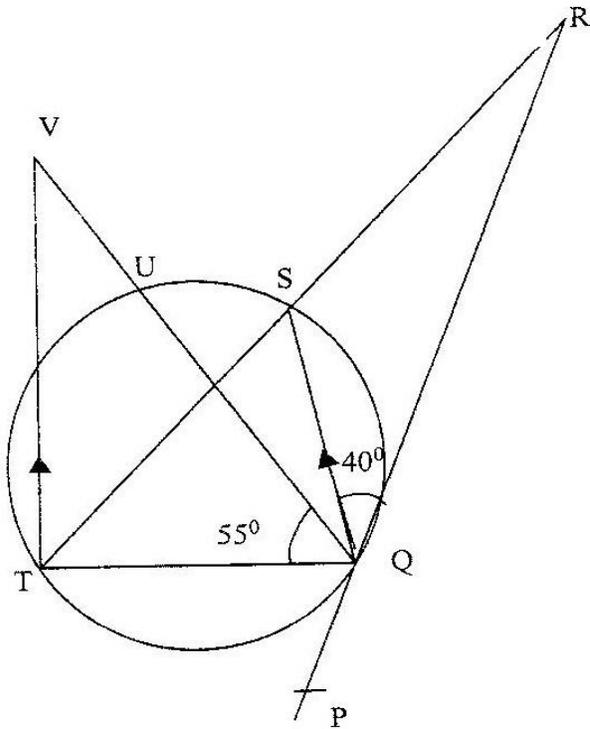
- The cost of hiring a tractor is partly constant and partly varies with the square of distance covered. When the distance covered was 20km the cost was sh 3200 and when the distance covered was 30km the cost was sh 3450. **Determine** the cost of hiring the tractor for 40km. (3mks)

- The probability that Chilla and Jotunda will pass an examination paper are $\frac{3}{5}$ and $\frac{7}{10}$ respectively. Find the probability that;
 - Both candidates will pass. (2mks)
 - At least one will pass (2mks)

- Write down the first five terms of the expansion of $\left(1 - \frac{x}{3}\right)^5$. Using the first three terms of the expansion find the value of $(1.01)^5$ to four decimal places. (4mks)
- Make s the subject of the formulae. (3mks)

$$a = \sqrt{\frac{S^2 + q}{p^2}}$$

- The floor of a rectangular room measures 4.8m by 3.2m. Estimate the percentage error in the area. (4mks)
- Christine deposited Ksh.50,000 in a financial institution in which interest is compounded quarterly. If at the end of the second year she received a total amount of Ksh.79,692.40, calculate the rate of interest per annum. (3mks)
- Two perpendicular lines meet at the point (4,5). If one of the lines passes through the point (-2,1), determine the equation of the second line in the form $ax + by + c = 0$. (3mks)
- A bus 5m long completely overtakes a trailer 15m long travelling in the same direction in 4.8 seconds. If the speed of the bus is 40 km/hr, determine the speed of the trailer in km/hr. (3marks)



Find the following angles, giving reasons for each answer

- a) $\angle QST$
- b) $\angle QRS$
- c) $\angle QVT$

20. Draw the graph of $y = 2x^2 - 4x - 5$ for x between -3 and 5 on the grid provided

- a) State the line of symmetry for the graph
- b) State the range of values for which $2x^2 - 4x - 5 \leq 0$
- c) On the same set of axes, draw the graph of $y = 2x + 3$
- d) Determine the solutions to the equation: $2x^2 - 4x - 5 = 2x + 3$

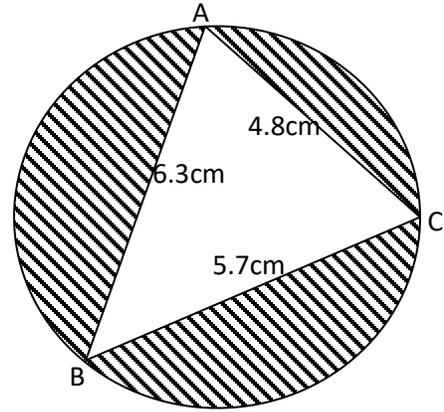
21. The circle below circumscribes a triangle ABC where $AB = 6.3\text{cm}$, $BC = 5.7\text{cm}$ and $AC = 4.8\text{cm}$.

Find

- (i) $\angle ABC$ (3marks)
- (ii) radius of the circle (3marks)
- (iii) the area of the shaded part (use $\pi = 3.142$) (4marks)

22. An arithmetic progression has the first term a and the common difference d

- a) Write down the third, ninth and twenty fifth terms of the progression in terms of a and d

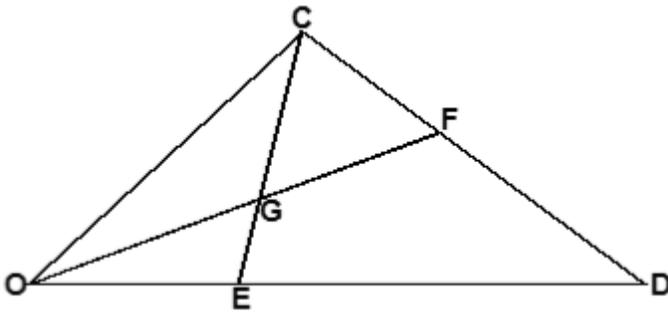


- b) The arithmetic progression above is increasing and that the third, ninth and twenty fifth terms form the first three consecutive terms of a geometric progression. The sum of the seventh and twice the sixth terms of the arithmetic progression is 78. Calculate:

- i) The first term and common difference of the arithmetic progression (5marks)
- ii) The sum of the first nine terms of the arithmetic progression (3marks)

23. In the figure below F is the midpoint of CD, $OE : ED = 2 : 3$ and G is the point of intersection of OF and CE.

10. Outline various methods used by livestock farmers to identify their animals



Given that $OC = c$ and $OD = d$, express in terms of c and d

- i) OF (1 mark)
- ii) CE (1 mark)
- b) Given further that $CG = hCE$ and $OG = kOF$, find the values of h and k . (5 marks)
- c) Hence show that O, G and F are collinear. (3 marks)

Form 3: Agriculture Holiday Assignment
Term 3 2018.

1. Define pre disposing factors
2. Outline eight signs of ill health in livestock animals
3. List 4 ways by which an animal may get infected by a disease from another
4. Discuss mastitis under:
 - a) Pre-disposing factors
 - b) Symptoms of attack
 - c) Control and treatment
5. State four signs which indicate the sow is about to farrow
6. What is the difference between the following in livestock management?
 - a) Crutching and ringing
 - b) Steaming up and flushing
7. State four reasons for weighing the young ones of livestock animal immediately after parturition
8. State four precautions taken by farmers when harvesting honey
9. Describe five methods of preserving fish

