

KCSE 2020 MOCKS

ALL SUBJECTS

SET 1

Dear Candidates, Attempt these Trials!

For Marking Schemes Call 0705525657

NAME..... ADM Number.....

Class.....

121/1

MATHEMATICS

JULY 2020

2 ½ hours

SECTION 1 (50 MARKS)

Answer all questions in this section

1. Evaluate without using a calculator

$$\frac{1}{4} + \frac{1}{5} \div \frac{1}{2} \text{ of } \frac{1}{3}$$

(3mks)

$$\frac{1}{2} \text{ of } \left(\frac{4}{5} - \frac{3}{4} + \frac{1}{2} \right)$$

2. Simplify completely.

$$\frac{3a^2 + 5ab - 2b^2}{9a^2 - b^2} \quad (3\text{mk})$$

3. Solve for x in the equation.
 $27^x \times 3^{(2x-2)} = 9^{(x+2)}$ (3 marks)

4. Given that $\sin \theta = 2/3$ and θ is an acute angle, find without using tables or calculators

(a) $\tan \theta$, giving your answer in surd form.

(2mks)

(b) $\cos (90 - \theta)$

(1mk)

5. Four machines give out signals at intervals of 24, 27, 30 and 50 seconds respectively. At 5.00pm all the four machines gave out a signal simultaneously. Find the time this will happen again. (3mks)

6. Two pipes **A** and **B** can fill an empty tank in 3hrs and 5hrs respectively. Pipe **C** can empty the full tank in 6 hours. If the three pipes **A**, **B**, and **C** are opened at the same time, find how long it will take for the tank to be full. (3mks)

7. A tourist arrived in Kenya with sterling pound (£) 4680 all of which he exchanged into Kenyan money. He spent Ksh. 51,790 while in Kenya and converted the rest of the money into U.S dollars. Calculate the amount he received in U.S dollars. The exchange rates were as follows.

	Buying	Selling.
US \$	65.20	69.10
Sterling Pound (£)	123.40	131.80

(4mks)

8. A straight line through the points A (2,1) and B(4,n) is perpendicular to the line $3y+2x=5$. Determine the value of n and the equation.
(4mks)

9. Determine the quartile deviation of the set of numbers below.
(2mks)

8, 2, 3, 7, 5, 11, 2, 6, 9, 4

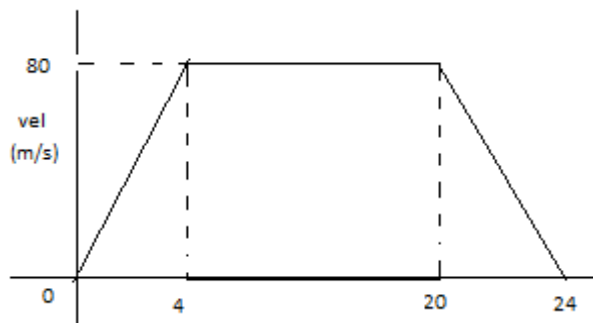
10. Solve the equation $2\cos 2(x + 30^\circ) = 1$ for $0^\circ \leq x \leq 360^\circ$.
(3 marks)

11. Without using tables or calculators, find the value of t in
 $\log_8(t + 5) - \log_8(t - 3) = \frac{2}{3}$ (3mks)

12. Solve for x : $3(x + 2) - \frac{20x - 5}{2} > 3\frac{1}{4}$
(3 mks)

13. Three years ago John was four times as old as his son Peter. In five years' time the sum of their ages will be 56. Find their present ages. (3mks)

14. The figure below show a velocity time graph for a wagon.



(a) Find the total distance travelled by the wagon. (2 marks)

(b) For how long did it maintain a constant speed? (1mark)

15. The volumes of two similar solids are 800cm^3 and 2700cm^3 . If the surface area of the larger one is 2160cm^2 , find the surface area of the smaller figure.
(3mks)

16. A ball is in the shape of a sphere. It weighs 125g. The material used to make it has a density of 2.5g/cm^3 . What is the volume of the material to make a dozen such balls?
(3 marks)

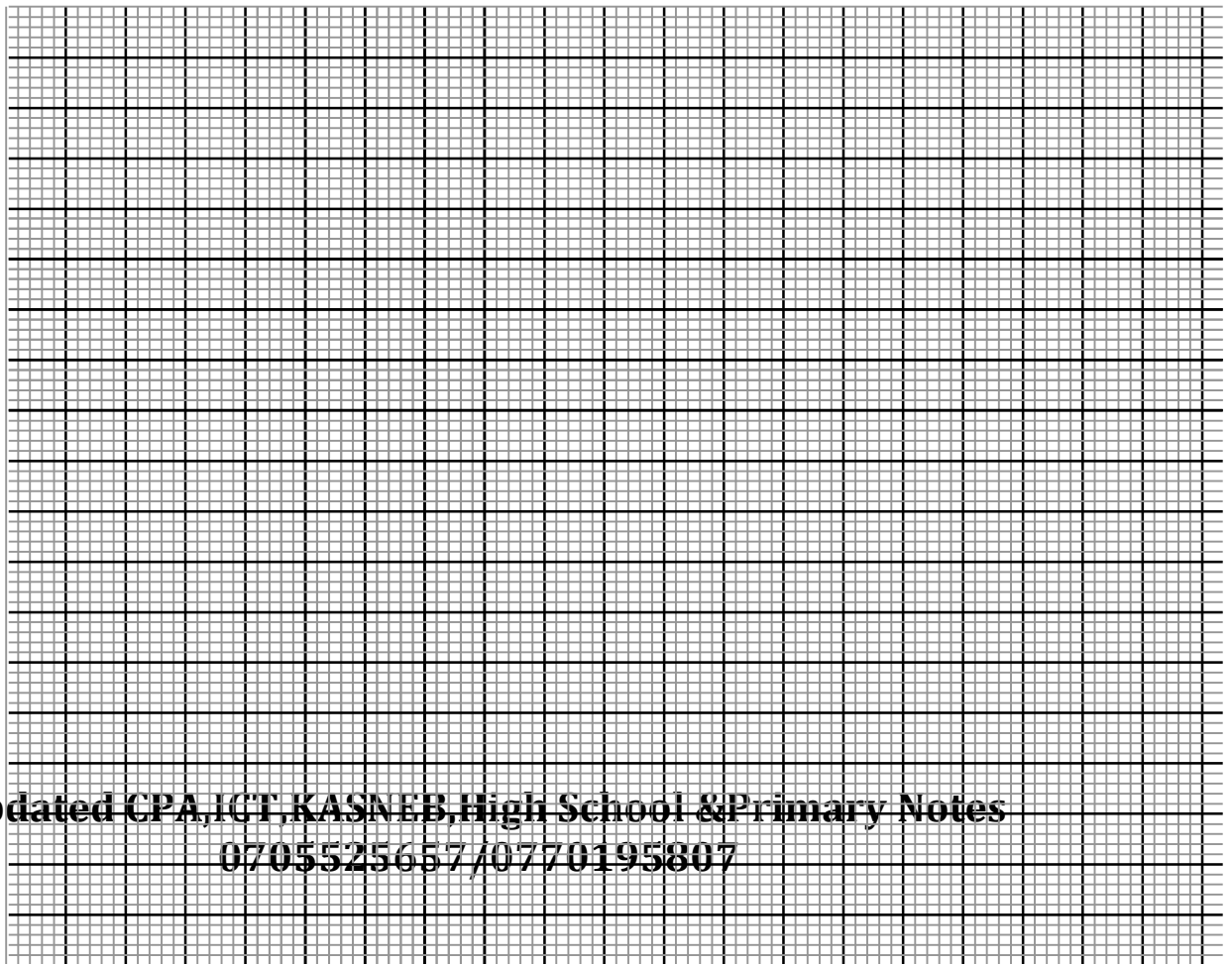
SECTION II (50 MARKS)

Answer any five questions in this section.

17. (a) Complete the table below for the equation $y = x^2 + 3x - 6$ given $-6 \leq x \leq 4$
(2mks)

x	-6	-5	-4	-3	-2	-1	0	1	2	3	4
y											

(b) draw the graph of $y = x^2 + 3x - 6$ (3mks)



(c) Use your graph to solve the quadratic equations.

(i) $x^2 + 3x - 6 = 0$
(2mks)

(ii) $x^2 + 3x - 2 = 0$
(3mks)

18. A saleswoman is paid a commission of 2% on goods sold worth over ksh. 100,000. She also paid a monthly salary of ksh. 12,000. In a certain month, she sold 360 handbags at ksh. 500 each.

a) Calculate the saleswoman's earnings that month.

(3 mks)

b) The following month the sales woman's monthly salary was increased by 10%. Her total earnings that month were ksh. 17600. Calculate:

(i) The total amount of money received from the sales of hand bags that month.

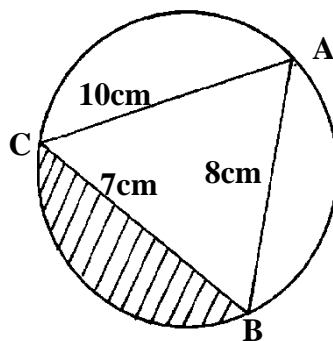
(5 mks)

ii) The number of handbags sold that month.
mks)

(2

19. The figure below shows a triangle **ABC** inscribed in a circle. **AC** = 10cm, **BC** = 7cm
and

AB = 10cm.



(a) Find the size of angle **BAC**.

(2mks)

(b) Find the radius of the circle.

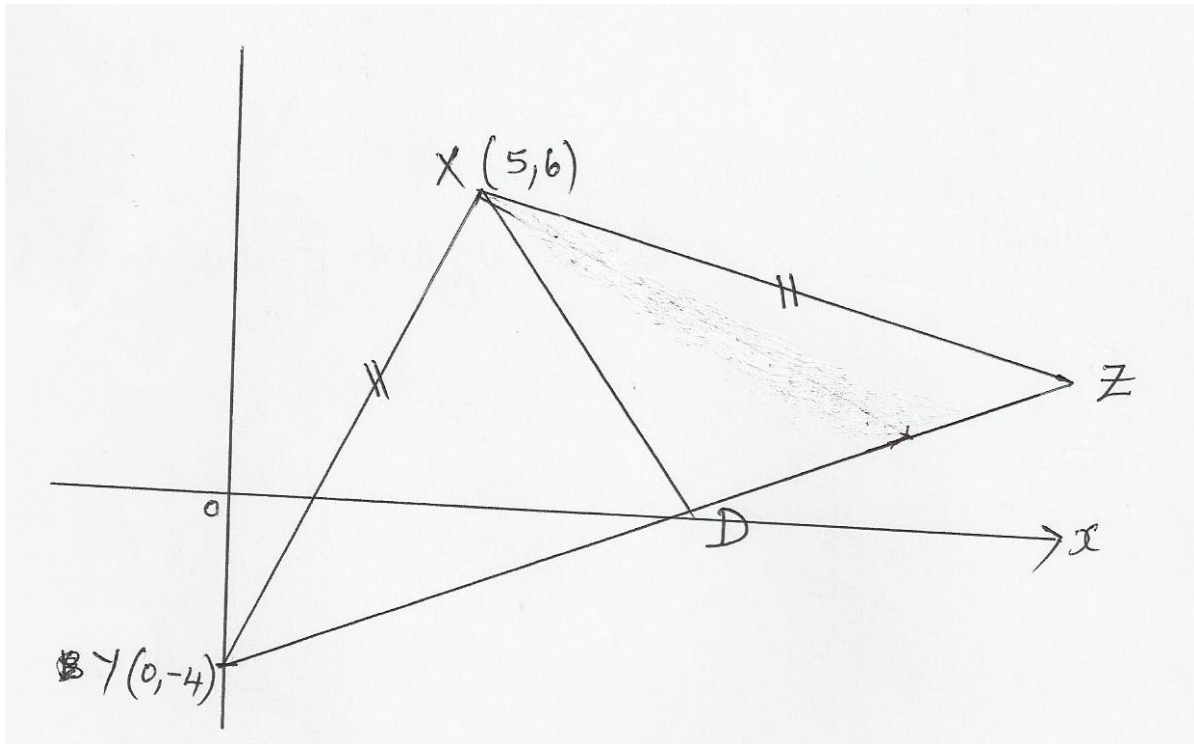
(2mks)

(c) Hence calculate the area of the shaded region.

(6mks)

20. The diagram below which is not drawn to scale, shows an isosceles triangle XYZ in which $XY=YZ$. The

Coordinates of x and y are (5, 6) and (0, -4) respectively.



Given that the equation of line YZ is $y = \frac{3}{4}x - 4$ and that the perpendicular from X to YZ meet YZ at D, find.

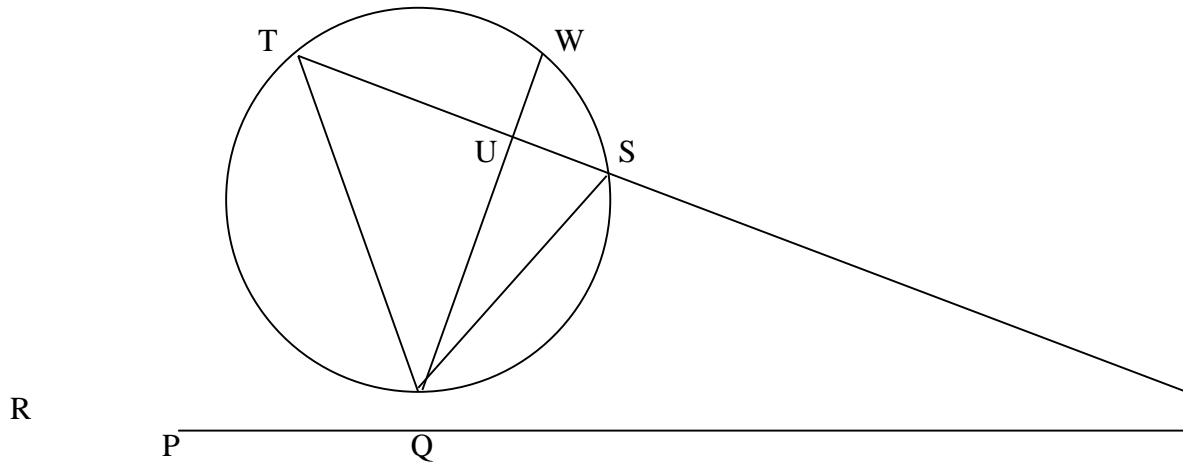
(i) The equation of XD (2 marks)

(ii) The coordinate of D (2 marks)

(iii) The coordinates of Z (2 marks)

(iv) The area of triangle XYZ (4 marks)

21. In the figure below, PQR is a tangent at Q and RST is a straight line. $\angle QTU = 50^\circ$,
 $\angle UTW = 33^\circ$ and $\angle TRQ = 25^\circ$



Giving reasons in each case, calculate
(i) Angle TSQ (3 marks)

(ii) Angle TSW (3 marks)

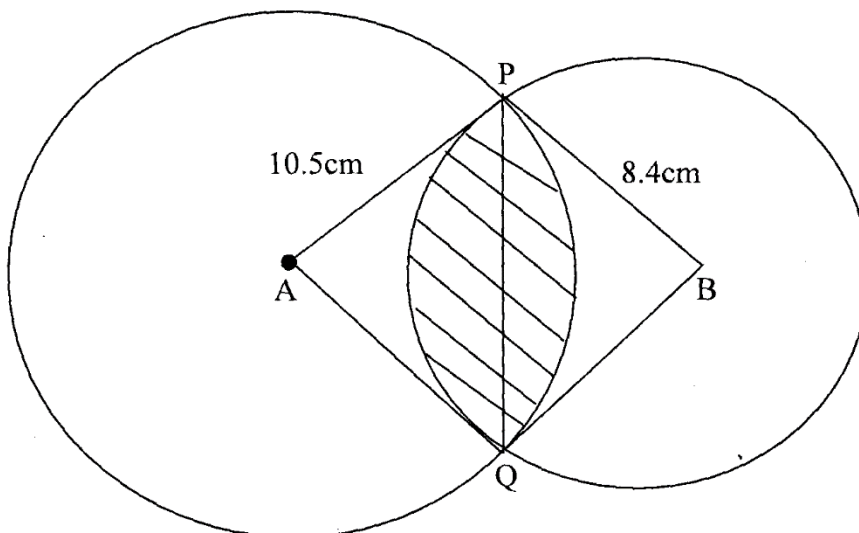
(iii) Angle TUQ (2 marks)

(iv) Angle PQW

(2

marks

22. The figure below shows two circles of radii 10.5 and 8.4cm and with centres A and B respectively. The common chord PQ 9cm.



- (a) Calculate angle PAQ.
(2 mks)

- (b) Calculate angle PBQ.
(2 mks)

- (c) Calculate the area of the shaded part.
(6 mks)

23. A and B are two towns 360 kilometers apart. A bus left **A** at 8.00 am travelling at 60km/h for town **B**.

After forty minutes, a saloon car left **A** travelling in the same direction as the bus at a speed of 80km/h.

- a) How far from **B** did the saloon car catch up with the bus?

- b) At what time did it catch up with the bus?

c) When the saloon caught up with the bus it got a break - down and had to be repaired before proceeding to **B** at the same speed. If they both reached **B** at the same time, find how long it took to repair the saloon?

24. An arithmetic progression (AP) has the first term a and the common difference d .

(a) Write down the third, ninth and twenty fifth terms of the AP in terms of a and

d . (1mk)

(b) The AP above is increasing and the third, ninth and twenty fifth terms form the first three

consecutive terms of a Geometric Progression (G.P) The sum of the seventh and twice the sixth terms of the AP is 78. Calculate:-

(i) the first term and common difference of the AP.

(5mks)

(ii) the sum of the first nine terms of the AP.

(2mks)

(iii) The difference between the fourth and the seventh terms of an increasing AP.

(2mks)

KCSE MOCK 2020

Name.....Index

No.....

121/2

MATHEMATICS

JULY 2020

2½ Hours

Section I (50 marks)

1. Use logarithms in all steps to evaluate.

(4marks)

$$\frac{2.532 \times 83.45}{\sqrt{0.4562}}$$

2. The sum of the interior angles of two regular polygons of sides $n-1$ and n are in the ratio of

2:3 Name the polygon with the fewer sides.

(3marks)

3. The diameter AB of a circle passes through points A (-4, 1) and B(2, 1). Find the equation of the circle and leave your answer in the form $x^2 + y^2 + ax + by = c$ where a, b and c are constants.(4 marks)

4. Without using mathematical tables and calculators simplify.

(3marks)

$$\frac{2}{3 - \sqrt{7}} - \frac{2}{3 + \sqrt{7}}$$

5. Expand $(2+x)^5$ up to the terms in x^3 . Hence approximate the value of $(2.03)^5$.

(3marks)

6. The sides of a triangular stool were measured as 8 cm, 10cm, and 15cm. Calculate the % error in the perimeter correct to 2d.p.

(3marks)

7. Solve for x given that the following is a singular matrix

(3mks)

$$\begin{pmatrix} 1 & 2 \\ x & x-3 \end{pmatrix}$$

8. The current price of a vehicle is sh. 500,000. If the vehicle depreciates at rate of 12% p.a find the number of years it will take for its value to fall to sh. 180,000. (3 marks)

9 Two variables are such that A is partly constant and partly varies as the square root of B. Given that

A = 27 when $B = \frac{1}{4}$ and A = 18; when B = 25, find A when $B = 12\frac{1}{4}$. (3 marks)

10. Determine the amplitude and period of the graph of $y = 6 \sin (\frac{x}{2} - 90^{\circ})$. (2marks)

11. A cylindrical container of radius 14 cm and 7cm is filled with water. If the container was a cube, what would be the base area of the cube? (3marks)

12. Solve the following equation.

(3marks)

$$1 + \log_5 x = \log_5 12$$

13. A law relating some two variables K and L was found to be $KL^n = C$. Make n the subject of the formula.

(3marks)

14. Solve the equation below by completing the square method $3x^2 - 7x + 2 = 0$ (3 marks)

15. Maize and millet costs Sh. 45 and Sh. 56 per kilogram respectively. Calculate the ratio in which they were mixed if a profit of 20% was made by selling the mixture at 66 per kilogram.

(4marks)

16. Given that $P = (3i + k)$ and $Q = (2i - k)$, find $|PQ|$ (3mk)

Section II (Answer five questions only from this section)

17. The position of two towns are A (30°S , 20°W) and B (30°S , 80°E) find

(a) the difference in longitude between the two towns. (1 mark)

(b) (i) the distance between A and B along parallel of latitude in km (take radius of the earth

as 6370km and $\pi = \frac{22}{7}$). (3 marks)

(ii) in nm. (2 marks)

(c) Find local time in town B when it is 1.45pm in town A. (4 marks)

18. Mr. Johnson is a teacher in Kenya .He earns a basic salary of Sh. 19,620 per month. He is paid a house allowance of Sh. 12,000, a medical allowance of Sh. 2,246 and a commuter allowance of Sh. 4,129 .He is deducted Sh. 1,327 towards a Retirement Benefit's Scheme. Use the tax rates given below to answer the questions below.

Monthly taxable (shp.m)	Rate of tax (%)
0 – 10,164	10
10,165 – 19,740	15
19,741 – 29,316	20
29,317 – 38,892	25
Over 38,892	30

(a) Calculate the monthly taxable income.
(2marks)

(b) Calculate the PAYE he pays to the government if he gets a monthly tax relief of Sh. 1162.
(6marks)

(c) Calculate his net monthly salary
(2marks)

19. The table below shows the distribution of ages in years of 50 adults who attended a clinic:-

Age	21-30	31-40	41-50	51-60	61-70	71-80
Frequency	15	11	17	4	2	1

(a) State the medium class

(1mk)

(b) Using a working mean of 45.5, calculate:-

(i) the mean age

(3mks)

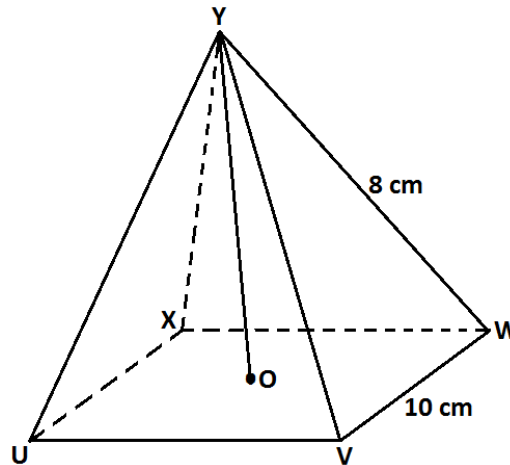
(ii) the standard deviation

(3mks)

(iii) Calculate the 6th decile.

(3mks)

20. UVWXY is a right pyramid on a horizontal square base of side 10cm. $YU = YV = YW = YX = 8\text{cm}$.



(a) Calculate the height of the pyramid.
(3marks)

(b) The angle between
(i) The slant face YWV and the base UVWX.
(2marks)

(ii) YV and the base UVWX.
(2marks)

(c) Calculate the angle between the planes UVY and WXY.

(3marks)

21 The probability that three candidates; Anthony, Beatrice and Caleb will pass an examination are $\frac{3}{4}$, $\frac{2}{3}$ and $\frac{4}{5}$ respectively. Find the probability that:-

(a) all the three candidates will pass

(2mks)

(b) all the three candidates will not pass.

(2mks)

(c) only one of them will pass

(2mks)

(d) only two of them will pass.

(2mks)

(e) at most two of them will pass.

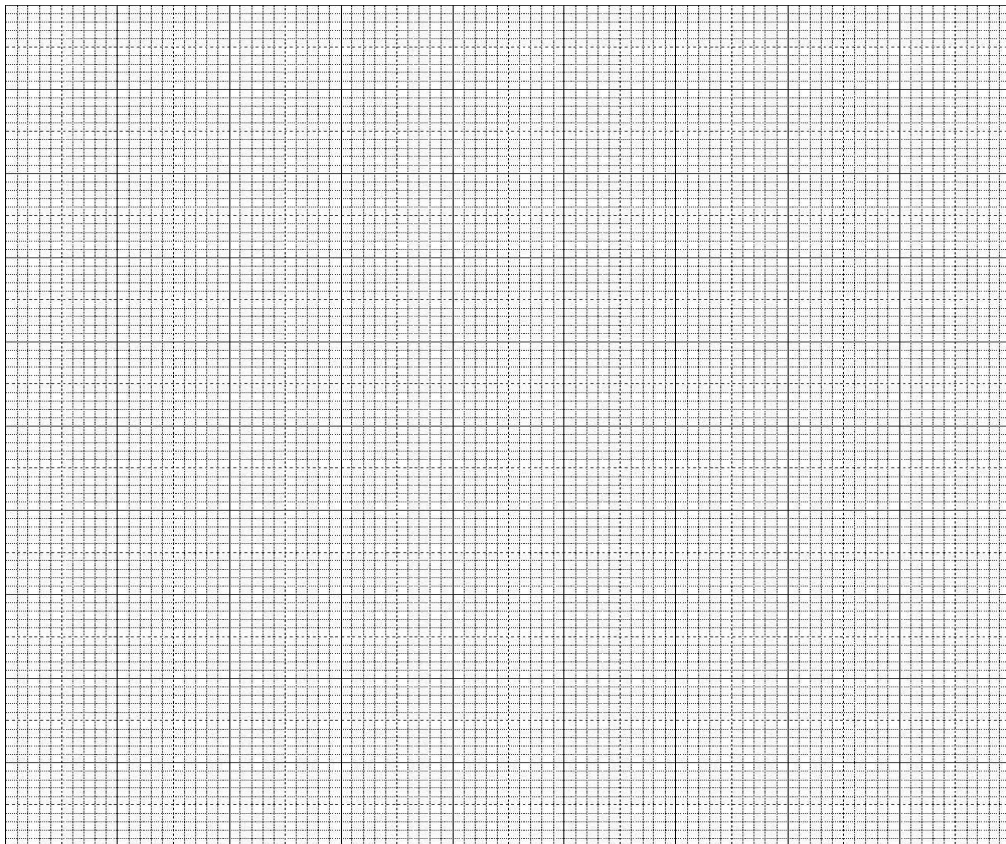
(2mks)

22. Complete the table below giving your values correct to 2 d.p.

(2marks)

x	0°	15°	30°	45°	60°	75°	90°	105°	120°
3cos x°	3.00		2.60		1.50		0	-0.78	
4sin(2x - 10°)		1.37		3.94	3.76		0.69		-3.06

(b) draw the graphs of $y = 3\cos x^\circ$ and $y = 4\sin(2x - 10^\circ)$ on the same set of axis on the grid provided. (4marks)



(c) Use your graph to find values of x for which $3\cos x - 4\sin(2x - 10^\circ) = 0$.
(2marks)

(d) State

(i) The amplitude of the graph $y = 3\cos x$.
(1mark)

(ii) The period of the graph $y = 4\sin(2x - 10^\circ)$.
(1mark)

23. Use a ruler and a pair of compasses only all constructions in this question.

(a) Construct the rectangle ABCD such that $AB = 7.2\text{cm}$ and $BC = 5.6\text{cm}$.

(3mks)

(b) Constructs on the same diagram the locus L_1 of points equidistant from A and B to meet

with another locus L_2 of points equidistant from AB and BC at M. measure the acute angle formed at M by L_1 and L_2 .

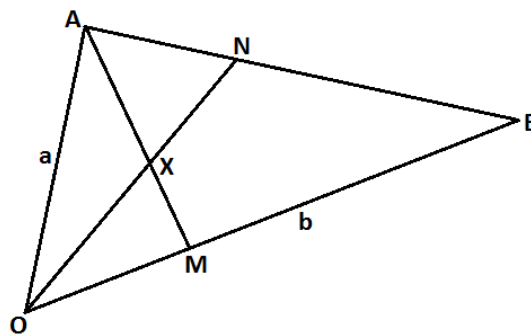
(3mks)

- (c) Construct on the same diagram the locus of point K inside the rectangle such that K is less than 3.5cm from point M. Given that point K is nearer to B than A and also nearer to BA than BC, shade the possible region where K lies. Hence calculate the area of this region.

Correct to one decimal place.

(4mks)

24. In the figure below, M and N are points on **OB** and **BA** respectively such that **OM: MB = 2:3** and **BN:NA = 2:1**. ON and AM intersect at X



- (a) Given that **OA = a** and **OB = b**, Express in terms of **a** and **b**

(i) **ON**

(2marks)

(ii) **AM**

(1mark)

- (b) Given that **OX = hON** and **AX = kAM** where h and k are scalars

(i) Determine the constants k and h

(5marks)

(ii) The ratio which X divides **AM**.

(2marks)

KCSE MOCK 2020

NAME..... INDEX

NO.....

DATE..... CANDIDATE'S

SIGNATURE.....

101/1

ENGLISH

PAPER 1

JUYL 2020

(Functional skills)

2 hrs.

FUNCTIONAL SKILLS

A. Functional writing

(20mks)

You are the journalism club chairperson in your school. You have seen an advertisement in the news paper about a Journalism Careers Day hosted by a media house. Unfortunately, it coincides with your school Annual Prize-Giving Day. The club members really wish to benefit from the information shared during the Journalism Careers Day. Write a letter of request to the managing director of the media house, through your principal, requesting that your club be hosted on a different day.

(20mks)

B. CLOZE TEST

Fill in the blank spaces in the following passage with the most appropriate word.

(10mks)

The devolved system of government that Kenya 1.....after the March 2013 general elections holds a lot of 2.....to unlock the country's economic, social and political fortunes 3.....have been stifled 4.....a centralized system of government since independence. Devolution will result in 5.....development in all parts of Kenya. The central system of government that was in place 6.....fifty years resulted in serious 7.....of large parts of the country 8.....Northern Kenya. Devolution has in the last two years delivered encouraging 9.....in many

counties.10.....include purchase of ambulances, road construction equipment, availing medicine in hospitals among others.

**C. ORAL SKILLS
MARKS)**

(30

- a) Read the poem below and answer questions that follow
(8mks)

To my Sister

It is the first mild day of March
Each minute sweeter than before,
The red breast sings from the tall larch
That stands beside our door

There is a blessing in the air,
Which seems a sense of joy to yield?
To the bare trees and mountains bare,
And grass in the green field

My sister! ('tis a wish of mine)
Now that our morning meal is done
Make haste, your morning task resign,
Come forth and feel the sun.

William Wordsworth.

Questions

- i. List any four pairs of rhyming words. (4mks)
- ii. Describe the rhyme scheme of the poem. (2mks)
- iii. How would you say the ninth line of the poem? (2mks)
- b) For each of the following words, write a word that has a similar pronunciation. (2mks)
- i. Profit
- ii. Medal
- iii. Style

- iv. Symbol
- c) Explain the two different meanings of the sentences below.
(2mks)
He cursed the day he was born.
- d) Identify the silent letter in each of the following words
(3mks)
- i. Mutton –
 - ii. Sachet –
 - iii. Sword –
- e) From the following set of words, identify the odd one out with regard to the pronunciation of the underlined letters.
(3mks)
- i. Critically Occasionally Academically
 - ii. Hop Rod Hope
 - iii. Soar Saw Soo
- f) State whether you would end with a rising or falling intonation against each of the following sentences.
(3mks)
- i. Why did you oversleep?-----
 - ii. What a tragic experience that was!-----
 - iii. My younger sister has identical twins. -----
- g) A Form Four class has been requested by their class teacher to suggest a place they would like to visit after posting very good marks in the county mocks.
Read the conversation below and answer the questions that follow.
Class teacher: Harry, please chair the discussion.
Harry: Colleagues, let us give proposals of where you'd like to visit. John, give your opinion
John: I propose we visit Nairobi.
Ken: What about Meru?
Harry: There is nothing to see in Meru

Peter: Why don't we go to Naivasha?
John: What? You are not serious. What is in Naivasha?
Harry: Brian?
Brian: I have not been to Nairobi, but
Steve: There are many places to visit in Nairobi.
Brian: Thank you. I have not been to Nairobi but given the distance and
the money at our disposal. I think we should visit nearer
places.
Harry: Yes Steve
Steve: I believe Nairobi would be the best place since there is the museum,
Snake Park, animal orphanage and other interesting places.
Harry: What about you Andrew?
Andrew: We visited Naivasha sometimes last year and wouldn't mind going
there a second time. We didn't visit the Hell's Gate.....
Harry: Excuse me Andrew, let us fix the place first before we say what we
shall see there. No more suggestions as this discussion is
lead us to nowhere.
so we shall vote for these places that is Nairobi, Meru and Naivasha.
The secret ballot is the way to go and the class teacher will
be the returning officer.

- i. Explain any three responses that have flouted the acceptable manner of conversation.
(6mks)

- ii. Pick out instances of etiquette in the conversation.
(3mks)

ENGLISH PAPER 2 MOCKS

101/2

ENGLISH

PAPER 2

(Comprehension, Literary Appreciation and Grammar)

COMPREHENSION

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

Unscrupulous as he was, Kwame Asante had a qualm as he looked at the woman sitting on the African stool near the bed. He had called her and yet when she came he did not quite know how to begin the conversation.

“Akosua, how would you like fifty pounds to start a small business of your own – selling cloths or perfume and powder?” The woman smiled nervously. Ten years of married life had made her wary of her husband’s fits of generosity.

She was as black as ebony, with the fine features peculiar to the girls of the Akwapim hills; graceful in her brown and red design cloth and the lovely silk head-tie wrapped round her head. Her feet were shod in ‘spitfire’ sandals and on her tiny ears she had the popular golden ear-rings named ‘Abongo’.

The slender woman on the stool was the mother of three children though she still looked a girl. Married under the native customary law, she had served her lord and master with zeal and zest. It is a law which as some other law in the Gold Coast, needs disinfecting for though it aids the man to gain his desire when it is at its fiercest, it in no way safeguards the position of the woman when the man’s passion abates.

“Would you like fifty pounds?” asked Kwame again. “Could make it a hundred. You have been a very good wife to me, Akosua.” Did the truth begin to dawn on the woman’s consciousness? No. She thrust the thought away from her. ‘He could not do it’.

Kwame cleared his throat – after all he might as well get it off his chest: hadn’t she noticed that the whole relationship had become impossible? A cloth woman was all right when one was young and struggling. She could be so useful – a general servant, and yet a wife. Akosua was so gentle, and even quite refined, but a man needs a change. He had just completed his two-storied building and he had been made a committee member of an important club. The other day his academy had conferred on him an associateship and his university had given him a coveted degree. He had at last achieved his ambition and had become an important man in the community. He was thinking seriously of entering the town council.

Fancy being addressed councilor Kwame Asante, O.B.A.... A.S.S. He smiled inanely to himself. Akosua looked at him in wonder.

“Er..... er.... Akosua...., I want to tell you I am going to marry a lady; you will be paid off with a hundred pounds. A.... frock..... lady.....um.....er of course you can read and write Ga and Twi but my friends will call you an illiterate woman.”

“Did you consult your friends before you married me ten years ago?” The voice was cold and calm, yet the words cut like a whip.

“If you are going to be impertinent, I shall not discuss the matter further.” He got up and walked up and down the room. “How many men in the Gold Coast will pay a woman off with one hundred pounds? You are only entitled to twenty-five pounds and here I am out of kindness offering you a hundred. Show some gratitude, Akosua.” Akosua looked at him. Stark misery was in her eyes.

“I shall send the children to Achimota College.” There was a whining note in his voice. “I am only doing this because of my position in society. You see I may be called to Government House and other important places..... say something Akosua.

“I say you can keep your twenty five pounds, fifty pounds or a hundred pounds. I will have nothing to do with it. I will not be paid off.

“What! What! Come! Come! Don’t do anything rush!”

“If you dare touch me I shall strike your face.”

“Strike your master, your husband! Are you mad?”

“I shall leave this house.”

“If you dare to disgrace me by leaving the house before I am ready for you to go, there will be trouble. I do not intend to put up with a willful woman. What is my sin after all? I only want to become a decent and respectable member of society. If you leave this house without my knowledge and permission, I shall claim every penny I have spent on you since I married and lived with you these ten years; and not only that but I shall claim all the presents I have given to your parents and other relatives. You know our native customary law.”

“Yes, I know your native customary law. It is a grave to bury women alive whilst you men dance to the tom-tom on top of the mound of earth.”

Questions

Why does Akosua smile nervously when Kwame offers her fifty pounds to start a small business of her own?

(2mks)

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Explain the effect of Akosua’s silence on Kwame?

(2mks)

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'It is a grave to bury women alive whilst you men dance to the tom-tom on top of the grave.'

Explain the meaning of this statement. (2 marks)

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What is Kwame's attitude towards women? (2mks)

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Explain the meaning of the following words and phrases as used in the passage. (3 mks)

Disinfecting

.....

The words cut like a whip

.....

Impertinent

.....

LITERARY APPRECIATION:

BLOSSOMS OF THE SAVANNAH

Read the following excerpt and answer the questions that follow.

Although Resian had a lot to complain and grumble about in life in their new environment, Taiyo found it tolerable. For instance, she gladly discovered that mornings in their new home began with a lively chatter of birds in the trees surrounding their house. That gave the home an atmosphere of tranquility and peace. However, one of the unpleasant aspects that the girls had to live with was the constant violation of their privacy. In Nasila, they soon discovered, the home belonged to all the clan members. It was not an unusual thing to get up in the morning to find the living room full of men and women who came early, not for any tangible business, but simply to share a sumptuous breakfast with their kith and kin. Taiyo and Resian were soon to get used to hearing an urgent knock at the door very early in the morning. On opening, they would invariably be met by a grinning group of men or women who would unashamedly ask them what they were doing in bed that late in the morning. They would proceed to take seats in the living room and order them to serve them breakfast. When they got used to what at first, they considered negative aspects of the Nasila culture, Taiyo and Resian adjusted accordingly and soon they began to live harmoniously with the people. Their father was out of the homestead most of the time working at the shop and organizing other business matters. His absence meant the absence of his irksome and corrosive remarks that always heightened tension in the house. In his absence, the house was a continuous joy with comfort and conveniences, and the girls found it pleasurable to keep it clean and well-arranged.

Questions

What happens immediately after this extract? (5 marks)

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.....

Where had the family been living before and why did they move? (3 marks)

.....
.....
.....

Give the character traits of the following: (6marks)

Taiyo

The people of Nasila

.....
.....
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.....
.....

Discuss a theme implied in the extract. (4 marks)

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Using the rest of the book, cite and explain one cultural aspect that had a life changing effect on the lives of the two girls (4mks)

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Explain a stylistic device used in the extract. (2mks)

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Taiyo and Resian adjusted accordingly? Add a question tag. (1mk)

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.....

ORAL LITERATURE

The Man, His Son and The Squirrel

There was a certain town whose only occupation was catching squirrels (ground squirrels). There was a man in this town who excelled at catching squirrels. One squirrel was so smart that it eluded everyone in town. It was said that only this man said to his son, "Come, let's go to catch the squirrel." They took an axe; they found the squirrel near its hole. Then the squirrel ran and entered its hole. They searched out all the holes, then they stopped them up. Then the man said to his son, "Don't let the quirrel get out of its hole." He answered, "Okay." But one hole wasn't stopped up, and the squirrel escaped. When it escaped, the father came to his son and said to him, "Why did you let it escape? If I go home now, I will beashmed." He grabbed the axe and struck his son. Then he went on his way and left his son unconscious. Ants began to fill his eyeballs an his ears; vultures were circling above him.

In the afternnon, the headman of a rich caravan arrived at the spot. When he arrived, he setp up camp. Then he got up and went for a stroll and saw the boy. He called his slaves to take him and have him washed and shaved. The boy recovered. The headman had no offspring. When he took the boy, he decided that he would make him his son. He sent a message to the chief of the town, telling him that he had an offspring, that he was happy he had become a complete man, and that he would now receive the gifts due to him.

The chief said, "This is a lie. He is not his son. If he is his son, then let him come that I can see." Then the headman arrived in town. The chief gave his sons horses worth ten pounds. He said, "Go and join the son of the headman. Have a race. When you finish give these horses away" (forcing him to do the same). They did it and they returned. the next day, the chief again gave them horses worth ten pounds. They did as the day before. They did it five times. They ran out of horses. Then the chief said, "Indeed, it is his son I have run out of horses. If it weren't his son, he wouldn't agree to let him give his own horses away to match the presents." Then the chief summoned his daughter. The Gralladima brought his to help. The Madaki also gave, and the Makama gave. Altogether, four wives. The chief gave a big house. The headman came and brought twenty concubines and gave to his son. There was continuous feasting.

Then one day the son saw his father, the one who had knocked him down with the axe because of the squirrels. The father came to the house of his son and said, "Throw away your gown and start catching squirrels." The slaves of the headman said, "This is a crazy man, let us all strike him." The boy said to him, "This is my father, the one who sired me." The headman said, "I have already lied to the chief. Let us keep that secret. I will give your father wealth. Let him go home. Should he want to see you, let him come to visit you. If you want to see him, then you can go and visit him." The real father said he did not agree. Then the headman said, "Well then, let us go out in the countryside." They went. The headman unsheathed his sword. He handed it to the son, and said, "Kill one of the two of us." Here ends the story.

Questions

- (i) Classify the above narrative.

(1 mk)

.....
.....

.....
.....

(ii) What are the characteristics of the above classification? (2 mks)

.....
.....
.....

What is the function of this narrative? (1 mk)

.....
.....

Identify and illustrate any three features of oral narrative evident in the story. (6 mks)

.....
.....

Give one economic activity that is undertaken by the community referred to in this narrative. (2 mks)

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.....

Describe the character of the following:
The young man (2 mks)

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.....
.....

(ii) his father (2 mks)

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.....
.....

(e) Whom do you think would be the most appropriate audience of this story. (2 mks)

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.....

(f) What is the moral lesson of this narrative? (2 mks)

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.....
.....

GRAMMAR

Rewrite the following sentences as instructed.

(i) (a) The photographs will be taken at the venue of the wedding. The photographs will be taken in a reputable studio. (Combine into once sentence using 'eitheror,,,,') (1 mk)

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.....

(b) Neither the children nor the peasant allowed to go to the hall yesterday. (Rewrite filling the blank with an appropriate auxiliary verb). (1 mk)

.....
.....
.....

(ii) (a) The principal noticed serious laxity among the students. He warned them against such behaviour. (Combine the sentence using present participle.) (1 mk)

.....
.....
.....

(b) The farmer's cow gives twenty-five kilos of milk everyday. He feeds and waters it very well. (Combine using the present participle). (1 mk)

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.....
.....
.....

(iii) Underline the gerund in the following sentence.

Kibet is studying but swimming is his hobby. (1 mk)

(iv) Replace the underlined word with a phrasal verb.

It is not good to despise other people. (1 mk)

.....
.....

I am currently living with my brother in Karen. (1 mk)

.....
.....

The principal was annoyed with the three boys. (1 mk)

.....
.....

Rewrite the following sentences correcting the errors.

(i) There are situations of which you need to act with speed or else the consequences will catch up with you. (1 mk)

.....
.....
.....
.....

(ii) She likes football as it is more superior than hockey. (1 mk)

.....
.....

Fill in the blanks with the appropriate prepositions.

- (i) He was chargedforging property inheritance document. (1 mk)
- (ii) Kamau dealsgroceries. (1 mk)

Give two meanings from the sentence below.

“Did you see the girls with a telescope?” (1 mk)

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Use the correct form of the words in the brackets to fill in the blanks.

- (i) The couple has applied for a divorce overdifferences.
(reconcile). (1 mk)
- (ii) That matter is highly(contest) in a court of law. (1 mk)

KCSE MOCKS PAPER 3

101/3

English Paper

ANSWER THREE QUESTION ONLY

Your relatives have organized a farewell party for you in preparation for your departure to the USA for further studies. Write the speech that you will deliver on that day.

2) Drama (compulsory) (20 marks)

The past always catches up with the present, sometimes with some unintended consequences. Using the play, A Doll's House, explain this statement.

3) Optional set texts

Either (20 marks)

a) The Short Story

The grass is always greener on the other side of the fence. Using the stories in the anthology, Memories we Lost and other Stories, discuss this adage. (20 marks)

Or

b) Drama

Using the play, Inheritance, explain the saying: the mouth that eats the seeds asks what it will plant. (20 marks)

Or

c) The Novel

The sea shapes the destiny of the Kino family. Discuss this statement using the book The Pearl. (20 marks)

KCSE MOCK 2020

JINA.....

NAMBARI YAKO.....SHULE.....

SAHIHI..... TAREHE.....

102/1

KISWAHILI

KARATASI 1

KIDATO CHA NNE

JULI 2020

MUDA $1\frac{3}{4}$

1. Wewe ni katibu wa kamati ya maendeleo wilayani mwenu. Andika barua kwa Gavana wa Kaunti yenu mkimpendekezea miradi ya maendeleo ambayo mnetaka ishughulikiwe katika wilaya yenu.

2. Tetea kauli kuwa dunia ni kijiji tandawazi.

3. Afadhali kujikwaa kidole kuliko ulimi.

4. Andika insha itakayomalizia hivi:

..... Jioni hiyo chajio kilinishinda, nikawazia hotuba ya Waziri wa salama kuhusu visa vya kudorora kwa usalama na mauaji yaliyokithiri.

KCSE MOCK 2020

JINA.....NAMBARI.....

.....

DARASA.....TAREHE.....

.....

KIDATO CHA NNE

MUDA: 2 ½

1. UFAHAMU

Licha ya kuwa na historia ya kiasi, maisha ya binadamu ni kioja kikubwa sana. Hebu jiulize jinsi uhai wako wewe mwenyewe ulivyoanza sembuse unavyoweza kupumua na kuishi na watu siku nenda siku rudi.

Dini zimefahamisha kuwa sisi binadamu tumeumbwa na Mwenyezi Muumba. Hata hivyo, Muumba hutumia mume na mke kutuanzishia maisha yetu humu duniani. Uhai wa hapa duniani huanzia katika tumbo la mwanamke muda mfupi baada ya mume na mke kushirikiana katika tendo la kujamiiana. Katika ngono hii yenye ufanisi, mbegu moja ya manii kutoka kwa mwanamume, hudunga n kujiingiza katika yai la mwanamke huku ikilirutubisha. Tangu hapo mtu huwa na mama akawa mjamzito. Hatua ya kwanza ya uhai!

Wanasayansi wametudhibitishia kuwa mbegu katika shahawa kutoka kwa mwanamume ina kromosomu ishirini na tatu (23) nalo yai la mwanamke lina idadi iyo hiyo ya kromosomu. Basi katika hatua ya kwanza ya uhai wake, binadamu ana kromosomu arubaini na sita (46). Kromosomu hizo zote ndizo humfanya mtu kuwa mkamilifu kwa kukadiria mambo mbalimbali adhimu. Kwa mfano, kama kiumbe kitakuwa cha kike au kiume, mtu mweupe au mtu mweusi, mwerevu au wa wakia chache, mwenye nywele za singa amaze kipilipili, atakuwa na damu ya aina gani, michoro ya vidole vyake itakuwa vipi na hata utu wake utakuwa wa namna gani katika siku za usoni.

Elimu yote mtu anayopata kutoka kwa jamii na mazingira huweza tu kujenga juu ya yaliyokwisha kuanzilishwa na kromosomu katika yai lililorutubishwa tumboni.

Haihalisi kabisa kufikiria kwamba hatua za mwanzo tumboni mwa mama kiumbe huwa katika hali ya ukupe. La hashu! Yeye hujitegemea kwa vyovyote na ana upekee wake. Hatangamani na mama yake. Roho yake humdunda mwenyewe na damu yake ambayo huenda ikawa tofauti kabisa na ya mama yake, humtembea na kumpiga mishipani mwake. Isitoshe, yeye si mojawapo kayika viungo vya mwili wa mama yake vinamvyomdhibiti katika himaya yake ndogo.

Amini usiamini, hapana binadamu hata mmoja ambaye amewahi kuwa sawa kimaumbile na mwingine na wala hatakuweko. Hata watoto pach kutoka yai moja la mama hawawi sawa, lazima watatofautiana. Si nadra kusikia mtu ameapata ajali akahitaji msaada wadamu, na pakosekane kabisa mtu hata mmoja kutoka jamaa yake wa kumwauni. Basi ukistaajabu ya Musa utayaona ya Firauni.

1.Ipe taarifa uliyosoma anwani mwafaka.

(al.1)

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...

2. Uchunguzi wa sayansi umekita mizizi katika imani gani ya kidini?

(al.2)

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3.Mwandishi ana maana gani anaposema ngono yenye ufanisi?

(al.2)

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4.Taja majukumu yoyote matano yanatekelezwa na kromosomu.

(al.5)

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5.Katika makala, elimu kutoka kwa jamii na mazimigira yaelekea kuwa bure.Kwa nini? (al.2)

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...
6.Eleza maana ya maneno yafuatayo kama yalivyotumiwa katika makala.

(a) huwa katika hali ya ukupe
(al.1)

.....
.....
(b) himaya
(al.1)

.....
.....
(c) hatangamani na mama yake.
(al.1)

2. MUHTASARI

Soma kifungu kifuatacho kisha ujibu maswali.

Uwezo wa kuyakumbuka mambo ni hazina kutoka kwa mtu yeyote Yule aliye hai. Uwezo huu wa kukumbuka ni mojawapo ya shughuli changamano za ubongo. Ubongo wa mwanadamu hutekeleza shughuli hii kwa namna tau. Kwanza ubongo hunasa jambo kisha hulihifadhi. Baadaye huanzisha mfumo wa kutoa kilicho hifadhiwa. Ubongo ukiadhirika kwa namna yoyote katika mojawapo ya njia hizi, basi uwezo wa kuyakumbuka mambo huvurugika.

Ingawa inaaminika kuwa uwezo wa kukumbuka hurithishwa kutoka kizazi kimoja hadi kingine, wataalamu wa maswala ya kiakili wanabaini kuwa uwezo huu unaweza kuimarishwa. Uimarisahji huu huhitaji mikakati madhubuti. Njia mojawapo ya kustawisha uwezo wa kukumbuka ni kupitia kwa lishe. Vyakula vilivyo sheheni vitamin B vyenye amino acidi husaidia kuimarisha uwezo wa kukumbuka. Vyakula

kama hivi ni mboga, nyama (maini), bidhaa za soya, matunda, maziwa, bidhaa za ngano, samaki, pamoja na mayai. Vyakula vingine muhimu katika ustawishaji huu ni vile vyenye madini ya chuma. Madini haya huwezesha usambazaji wa hewa katika ubongo kwa wepesi. Vyakula ambavyo vina madini haya ni mboga za kijani, mawelev, ndengu, soya, matunda kama maembe, ufuta (simsim), pamoja na nyama, hasa maini na mayai.

Ubongo wa binadamu aliye hai hufanya kila wakati awe macho au awe amelala. Utendaji kazi wake huendeshwa na glukosi mwilini. Kwa hivyo, vyakula vyenye sukari hii ni muhimu kuliwa. Hata hivyo, lazima mtu awe mwangalifu na kuhakikisha kuwa mwili una kiwango cha sukari kisicho hatarisha maisha. Haya yanawezekana kwa kula vyakula vyenye nyuzinyuzi kama vile mboga na matunda.

Njia ya pili ni kupiga marufuku vileo kama pombe na nikotini. Vileo hivi huathiri utaratibu wa kunasa, kuhifadhi na kutoa yaliyo ubongoni.

Iwapo mtu ana tatizo la kuyakumbuka majina ya watu, ni muhimu kufanya mazoezi ya kusikiliza kisha kurudia majina hayo wakati wa mazungumzo. Ni bora kulihusisha jina na sura ya mtu. Kwa njia hii ubongo utanasa jina na kile kinacholengwa.

Woga na kuvurugika kiakili ni mambo mengine tunayopaswa kuepuka kila wakati. Ni kawaida kupata woga wakati anapokubili jambo asilokuwa na uhakika na matokeo yake kama mtihani au mahojiano. Lakini unapashwa kuwa makini. Woga huo usikiuke mpaka na kumvuruga kiakili. Vurugu hizi huathiri kilichohifadhiwa ubongoni na pia namna ya kukitoa.

Halikadhalika, mwili wenye siha nzuri kuhakikisha kuwa ubongo ni timamu. Wataalamu wengi na siha wanakubali kuwa na mazoezi ya kunyoosha viungo hustawisha ubongo na hivyo kuhakikisha kuweko kwa uezo wa kukumbuka mambo. Ni muhimu kuwa na taratibu ya kunyoosha viungo kila wakati. Fauka ya hayo, mazoezi ya kiakili kama vile kusoma makala yanayovutia, kujaza mraba na michezo mingine kama mafumbo, vitanza dimi ni muhimu katika kustawisha uwezo wa kukumbuka.

Jamii ya watu wenye uwezo wa kuyakumbuka mambo ni jamii iliyopiga hatua kimaendeleo. Ni jukumu la kila mmoja wetu kuimarisha uwezi wa kukumbuka kila wakati.

- (a) Fupisha ujumbe wa aya tano za mwanzo kwa maneno..(90-100) (alama 9, 1 ya mtiririko)

Matayarisho

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Jibu

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(b) Fupisha aya tatu za mwisho kwa maneno (40-50) (alama 6, 1 ya mtiririko)

Matayarisho

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Jibu

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3. MATUMIZI YA LUGHA (ALAMA 40)

(a) Andika vitamkwa vyenye sifa zifuatazo (al.2)

- i. Kikwamizo sikhuna cha ufizi.....
- ii. Irabu ya mbele juu tandazwa.....

(b) Tambua mofimu katika sentensi ifuatayo (al.3)

Awaibiaye

.....
.....
.....
.....

(c) Eleza matumizi ya kiambishi 'ni' katika sentensi ifuatayo (al.2)

Halima ambaye ni rafiki yangu tangu utotoni, alinitembelea nyumbani juzi.

.....
.....
.....

(d) Tumia nomino 'sherehe' kama kitenzi katika sentensi (al.2)

.....
.....
.....

(e) Nyambua vitenzi vifuatavyo katika kauli zilizo kwenye mambano (al.2)

- i. Tua(tendama).....
- ii. Fumba(tendata).....

(f) Tumia kivumishi kimilikishi nafsi ya pili wingi kutunga sentensi. (al.2)

.....
.....
.....

(g) Bainisha aina za nomino katika sentensi hii (al.2)

Kucheka kwa bwana Omari kulionyesha raha baada ya kuionja asali.

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.....

(h) Bainisha aina za virai vilivyopigiwa mstari. (al.3)

Ukeketaji wa wasichanaume pingwa na jamiiyenye msimamo imara.

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(i) Tunga sentensi moja yenye kuonyesha aina tatu za shamirisho (al.3)

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.....
(j) Andika sentensi ifuatayo katika hali yakinishi (al.2)
Usiposoma kwa bidii, hutapita mtihani.
.....
.....
.....

.....
(k) Andika sentensi ifuatayo katika wakati ujao hali timilifu (al.2)
Mhubiri huwasomea waumini kitabu kitakatifu.
.....
.....
.....

.....
(l) Tunga sentensi yenye muundo ufuatao (al.3)
KN(N+V+E)+KT(T+H+N)
.....
.....
.....

(m)Tunga sentensi kubainisha kivumishi cha pekee chenye maana ya 'bila kubakiza'
(al.1)
.....
.....

.....
(n) Andika sentensi ifuatayo kwa wingi (al.2)
Kilema mwingine alikuja kwangu.
.....
.....
.....

.....
(o) Changanua sentensi ifuatayo kwa kutumia matawi (al.4)
Simba waliojeruhiwa jana walikimbia vichakani.
.....
.....
.....

(p) Andika kwa usemi halisi (al.2)
Njoroge alisema alikuwa amepata alama zote katika mjarabu wa siku iliyotangulia.
.....
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.....

(q) Andika sentensi ifuatayo ukitumia kinyume: (al.1)
Mama yule mfupi alianika nguo za mwanawe.
.....

KCSE MOCK 2020

102/3

KISWAHILI

Karatasi ya 3

FASIHI

Machi/Aprili 2020

Muda: Saa 2 ½

Karatasi hii ina kursa nne zilizopigwa chapa.

SEHEMU YA A: RIWAYA
Assumpata K. Matei: Chozi la Heri
LAZIMA

1. “Haiwezekani! Hili haliwekazi! Itakuwa kama kile kisa cha yule kiongozi wa kiimla wa kike”
 - (a) Eleza muktadha wa dondoo hili.
(alama 4)
 - (b) Eleza kwa kifupi yaliyowapata wahafidhina baada ya usemi huu.
(alama.4)
 - (c) Riwaya ya chozi la heri inaonyesha maovu yanayotamalaki katika jamii.Thibitisha.
(alama 12)

SEHEMU B: TAMTHILIA
Kigogo.Pauline Kea.
Jibu swali la 2 au la 3

2. Tatizo la uongozi katika bara la Afrika ni kikwazo kikubwa cha maendeleo. Kwa kurejelea matukio kwenye tamthilia ya kigogo, jadili ukweli wa kauli hii
(alama 20)

AU

3. “Mtalipa kila tone la damu mlilomwaga sagamoyo ;wewe na watu wako.”
 - a) Eleza muktadha wa maneno haya
(alama 4)
 - (c) Eleza sifa za mzungumzaji
(alama 4)
 - (b) Thibitisha kwa kutoa mifano kuwa maisha ya anayezungumziwa yametawaliwa na dhuluma.

(alama 12)

SEHEMU YA C: HADITHI FUPI

4. Kwa kurejelea hadithi ya mapenzi ya kifaurongo, onyesha jinsi jamii imegawanyika kitabaka kugemea.

i. Kielimu

ii. Kikazi

iii. Kiuchumi

(alama

20)

SEHEMU D: SHAIRI

WASIA

5. Huno wakati mufti, vijana nawausia
Msije juta laiti, mkamba sikuwambia
Si hayati si mamati, vijana hino dunia
Uonapo vyang`aria, tahadhari vitakula

Japo aula kushufu, na machoni vyavutia
Dunia watu dhaifu, yaugua nasikia
Vijana nawasarifu, falau mkisikia
Uonapo vyang`aria, tahadhari vitakula.

Jepusheni na zinaa, mlale penye sheria
Msije andama baa, makaa kujipalia
Jepusheni na zinaa, madhara kukadiria
Uonapo vyang`aria, tahadhari vitakula.

Ngawa waone wazuri, nadhifu kukuvalia
Wajimwaie uturi, na mapoda kumichia
Si mlango nyumba nzuri, ngia ndani shuhudia
Uonapo vyang`aria , tahadhari vitakula.

Wawapi leo madume, anasa walopapia?
Wamepita ja umeme, leo yao sitoria
Shime enyi wana shime, bora kumcha Jalia
Uonapo vyang`aria, tahadhari vitakula

Nambie faida gani, nambie ipi fidia
Upatayo hatimani, waja wakikufukua
Ila kufa kama nyani, kasoro yako mkia
Uonapo vyang`aria, tahadhari vitakula.

Vyatiririka tariri, vina vyanikubalia
Alo bora mshairi, pa tamu humalizia
Nahitimisha shairi, dua ninawapigia
Uonapo vyang`aria , tahadhari vitakula.

Ewe Mola mtukuka, si shaka wanisikia
Wakingie wanarika, na anasa za dunia
Amina wangu Rabuka, dua yangu naishia
Uonapo vyang'aria, tahadhari vitakula.

MASWALI:

- a) Ni ujumbe gani wanaopewa vijana kupitia shairi?. (alama 4)
- b) Bainisha tamathali mbili za usemi katika shairi hili. (alama 2)
- c) Eleza bahari ya shairi hili kwa kuzingatia vigezo vifuatavyo. (alama 2)
- i) idadi ya vipande katika mshororo
ii) mpangilio wa vina katika beti.
- d) Eleza mbinu zozote mbili za kishairi zilizotumika katika shairi hili. (alama 2)
- e) Andika ubeti wa pili kwa lugha nathari (alama 4)
- f) Eleza toni ya shairi hili. (alama 1)
- g) Tambua: (alama 2)
- i) Nafsi neni
ii) Nafsi nenewa
- h) Eleza umuhimu wa mbinu ya kimtindo iliyotumika katika ubeti wa tano. (alama 2)
- i) Eleza maana ya msamiati: 'aula' (alama 1)

SEHEMU YA E: FASIHI SIMULIZI

6. a) Eleza maana ya miviga. (alama.2)
- b) Eleza sifa tano za miviga. (alama.5)
- c) Miviga ina udhaifu gani. (alama.3)
- d) Fafanua umuhimu wa ngomezi katika jamii. (alama.6)
- e) Eleza vizingiti viwili vinavyokumba ngomezi. (alama.4)

Huu ni ndio ukurasa wa mwisho

KCSE MOCK 2020

NAME _____ ADM _____

443/1

AGRICULTURE

paper 1

TIME: 2 HOURS

Section A(30 marks)

Answer all questions in the space provided.

1. List **four** benefits of minimum tillage in crop production
(2marks)
2. Name **four** financial documents commonly used on the farm
(2marks)
3. State **four** advantages of practicing crop rotation
(2marks)
4. Name the classes of crop diseases characterized by the following symptoms:-
 - i) Black powdery mass of spores
(½ mark)
 - ii) Brown patches on leaves and stems
(½ mark)
 - iii) Green and yellow patches of different sizes and shapes on the leaves
(½ mark)
 - iv) Plant wilting even under conditions of sufficient soil moisture
(½ mark)
5. Give **three** features of extensive farming
(½mark)
6. Give **three** advantages of correct plant population in annual crops
(1 ½ mks)
7. List **four** physical methods of pest control in crop production
(2marks)
8. State **four** ways in which land consolidation facilitate farm management
(2marks)

Updated CPA,ICT,KASNEB,High School &Primary Notes

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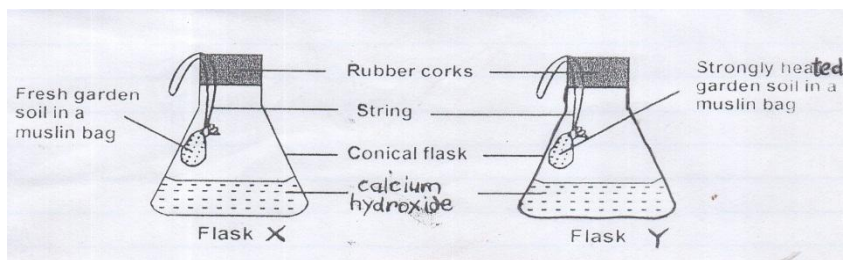
9. Mention four ways in which one may acquire land for agricultural use
(2marks)
10. List **two** economic activities that have influenced agriculture in Kenya
(2marks)
11. List **four** practices that can be used to ensure crops receive more sunlight (2marks)
12. Give **three** ways of controlling damping off in a vegetable nursery
(1 ½ mks)
13. Name the type of farm records the farmer would consider:
 - a) When deciding on promotion of workers (½ marks)
 - b) When acquiring new machinery for the farm
(½ mark)
 - c) To get best treatment for his sick cows (½ mark)
14. Give **four** reasons why water for use in the farm is treated
(2marks)
15. State **four** disadvantages of having weeds in pastures.
(2marks)
16. Give **two** ways in which PH influence crop production
(1mark)
17. Name **two** pests of sorghum
(1mark)

Section B (20marks)

Answer all the questions in the spaces provided.

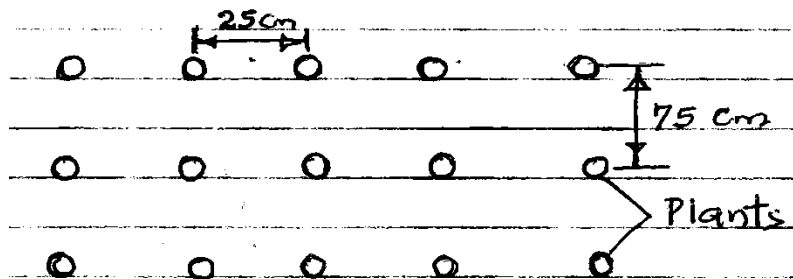
18. The diagram below represents a set up used to study soil. Study it carefully and answer the questions that follow

\



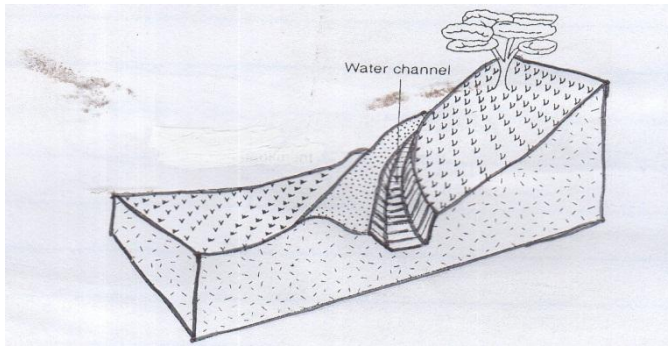
- a) What was the aim of the experiment?
(1mark)
- b) State the observation made at the end of the experiment
(2marks)
- c) Explain the observation made in the flask X
(1mark)
- d) State the reason for heating the soil in the flask Y strongly
(1mark)

19. The diagram bellow illustrates structure used for soil and water conservation. Study it and answer the the questions that follow



- a) Identify the structure
(1mark)
- b) Give two ways in which the structure in (a) above conserve soil and water
(2marks)
- c) Name two other structures used in conservation of soil and water.
(2marks)

20. The diagram bellow illustrates a method of planting. Study it and answer the questions that follow.



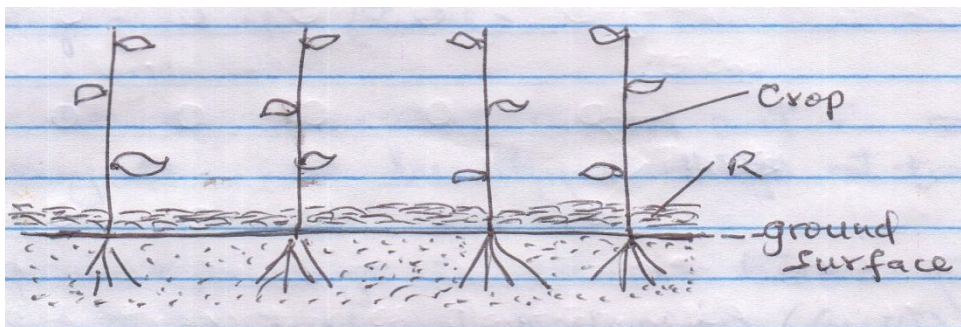
a) Identify the method of planting
(1mark)

b) State **two** advantages of the planting method in (a) above
(2marks)

A farmer planted maize as illustrated above on his plot measuring 45m x 35m. If he planted one seed per hole determine the plant population.

(2mks)

21. The diagram below illustrate a practice carried out during crop production



a) Identify the practice
(1mk)

b) State three disadvantages of carrying out the practice in (a) above
(3mks)

c) Name one possible material used as R in the diagram.

(1mks)

Section C (40marks)

Answer any two questions from this section in the spaces provided after question 24

22.(a) Describe eight cultural methods of controlling diseases in crop production

(8mks)

(b) Describe six practices carried out in a vegetable nursery to ensure healthy seedlings at transplanting

(6mks)

(c) Explain three ways in which biotic factors inhibit agricultural production

(6mks)

23. (a) Describe six ways through which a farmer can maintain soil fertility in his coffee farm

(6mks)

(b) Describe five field management practices that may be carried out in cabbage production

(5mks)

(c) State five disadvantages of individual owner operator form of land tenure.

(5mks)

(d) Describe four measures that can be taken to improve labour productivity

(4mks)

24. (a) Explain five practices carried out in the management of pastures to increase herbage yields.

(10mks)

(b) Describe planting of maize

(4mks)

(c) Describe six cultural methods of weed control in arable farming

(6marks)

5. List two factors that influence the amount of concentrates fed to a lactating cow.
(1mk)

6. Give two practices, other than application of preservatives that can be carried out on wooden fencing posts to make them last long.
(1mk)

7. Give the use of smoke during harvesting of honey? (½mk)

8. Give three advantages of artificial calf rearing. (1½mks)

9. Explain the meaning of the following breeding terms
 - i. Belting (1mk)

 - ii. Raddling (1mk)

10. Give the appropriate use of the following tools:
 - i. Garden trowel (1mk)

 - ii. Elastrator (1mk)

11. State two methods of stocking a beehive. (1mk)

12. Name four components of power transmission system. (2mks)
13. Name two practices aimed at keeping birds busy in a deep litter system. (1mk)
14. State two ways of stimulating milk let down in a dairy cow. (1mk)
15. Give four functions of calcium in dairy cows. (2mks)
16. Name two points of attachment of tractor drawn implements. (1mk)
17. Name four breeds of dairy goats. (2mks)
18. List down two roofing materials used by farmers. (1mk)

19. Give two functions of a footbath in a plunge cattle dip. (1mk)

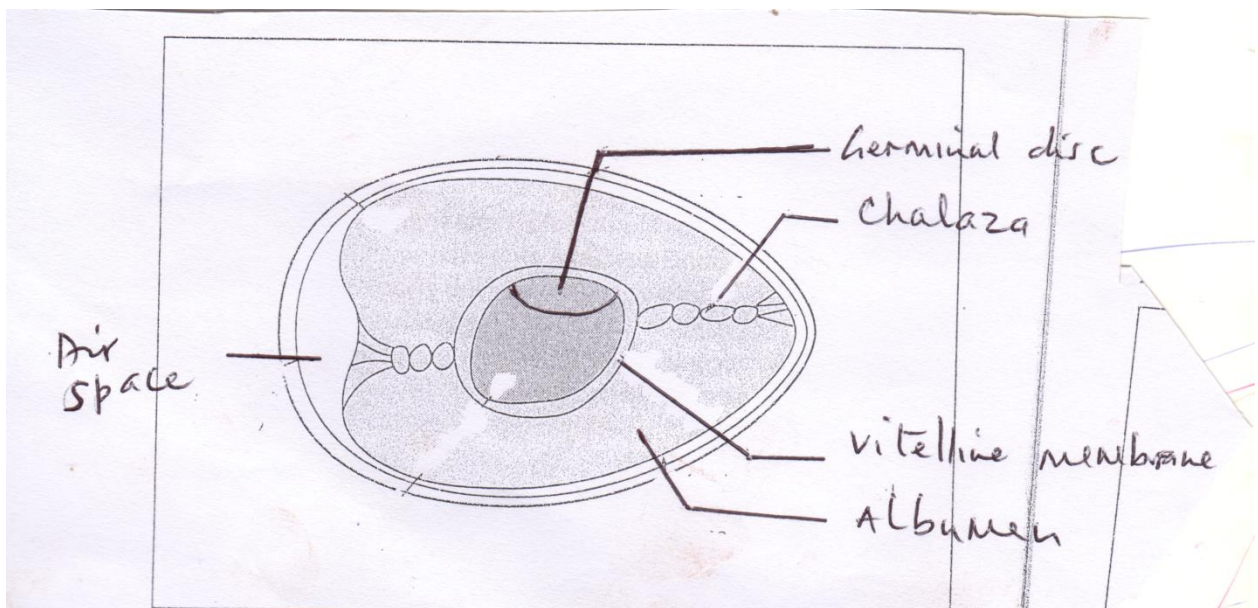
20. State four factors that would affect digestibility in livestock. (2mks)

21. Name four diseases transmitted by ticks. (2mks)

SECTION B (20 MARKS)

ANSWER ALL QUESTIONS IN THE SPACES PROVIDED.

22. Below is a diagram of poultry egg. Use it to answer the questions that follow.



a) State the function of the following parts:

i. Germinal disc (1mk)

ii. Vitelline membrane (1mk)

iii. Air space (1mk)

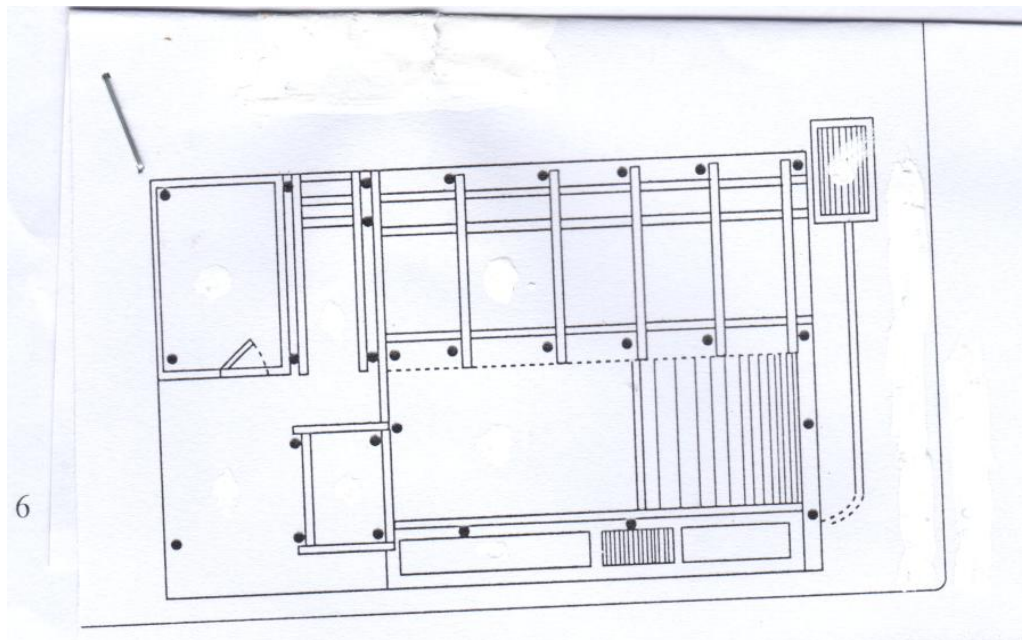
b) Differentiate between egg incubation and egg candling. (1mk)

23. Mr. Mwangi wants to mix feed for his calf containing 20% DCP. He intends to use sorghum meal with 8% DCP and soya bean meal with 38% DCP.

a) Calculate the quantities of each feed Mr. Mwangi would require to make 200kg feed using Pearson's square method. (4mks)

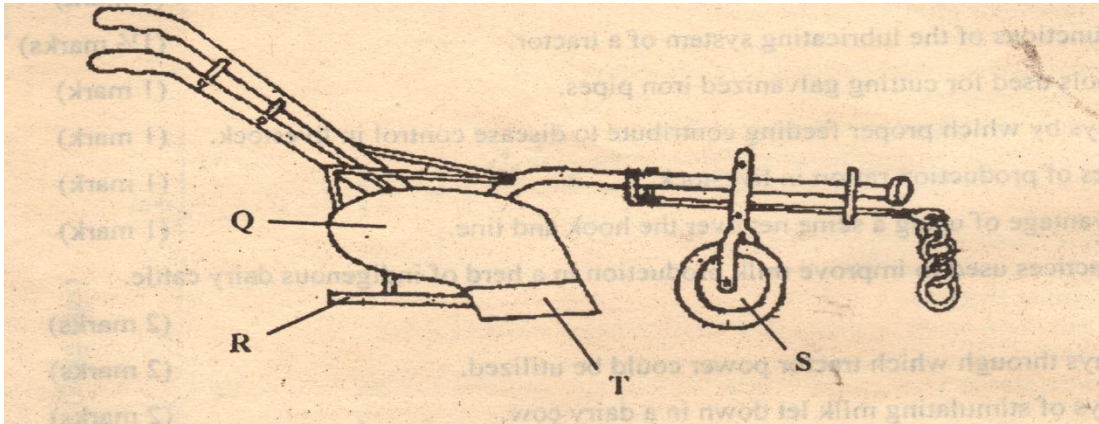
b) Identify another method of computing feed, apart from Pearson's square method. (1mk)

24. Study the ground plan of a zero grazing unit shown in the diagram below and answer the questions that follow



- a) Indicate the following parts of a zero grazing unit using roman numbers on the diagram. (2mks)
 - i. Store
 - ii. Calf pen
 - iii. Walking area
 - iv. Food and water trough area
- b) State two structural requirements of a calf pen. (2mks)

25. Below is an illustration of a farm implement study it carefully and answer the questions that follow.



a) Identify the implement (½mk)

b) Label parts Q R S and T. (2mks)

Q –

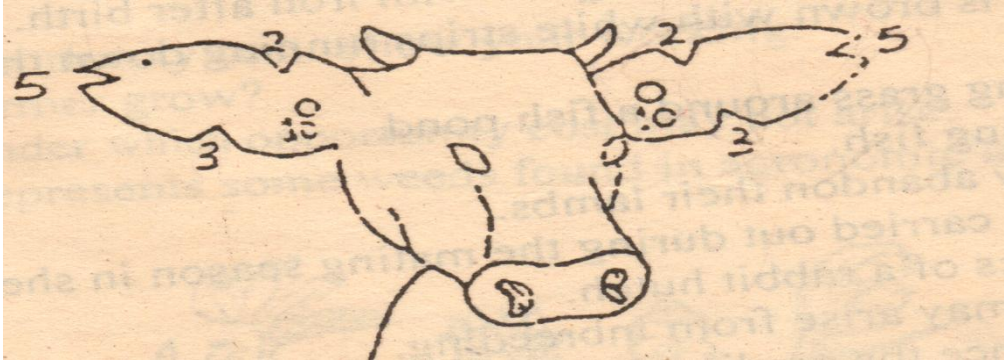
R –

S –

T –

c) State one way of increasing the depth of ploughing using this implement. (1mk)

26. The diagram below illustrates a method of identification used in livestock production. Use it to answer the questions that follow



- a) Name the type of identification illustrated above. (½mk)
- b) Give the identification illustrated in the diagram above. (1mk)
- c) Using diagrams, illustrate how you can identify animal number 34 and 38 using the above method. (2mks)

SECTION C (40MARKS)

ANSWER ANY TWO QUESTIONS

27. a) Describe five predisposing factors of livestock diseases. (5mks)
b) Explain six mechanical methods of controlling ticks. (6mks)
c) Describe nine factors that affect milk composition in a cow. (9mks)
28. a) Describe the procedure of harvesting honey; (5mks)
b) Explain five factors considered when culling a breeding boar. (5mks)
c) Describe poultry management under the following sub-headings.
i. Causes of stress. (5mks)
ii. Control measures for cannibalism. (5mks)
29. a) State eight advantages of live fences. (8mks)
b) Describe the functions of six named components of the cooling system of a tractor (12mks).

KCSE MOCK 2020

NAME INDEX NUMBER

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SCHOOL CANDIDATES

SIGNATURE

233/1

BIOLOGY

PAPER 1 (THEORY)

TIME: 2 HOURS

Answer all questions in the spaces provided

1. Name the branch of biology that deals with

- (i) Study of development of animals from egg to adult. (1
mk)

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.....

- (ii) Study of internal structure of living organisms. (1
mk)

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2. What is irritability? (1
mk)

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3. (i) In which organelle does photosynthesis take place? (1
mk)

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(ii) How is the organelle named adapted for photosynthesis? (2 mks)

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4. a) List two characteristics of polysaccharides. (2 mks)

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b) Name three polysaccharides. (3 mks)

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5. a) Name the kingdoms whose all members are multicellular. (2 mks)

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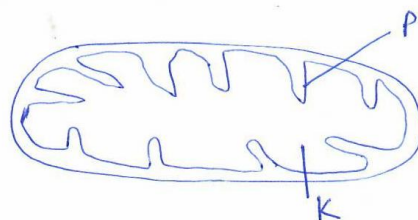
b) Give the formula used to determine magnification when using a hand lens. (1 mk)

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6. The diagram below represent a cell organelle.



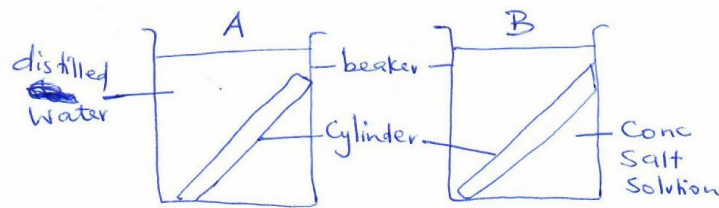
a) Name parts labelled p and k. (2 mks)
P _____
K _____

b) State two adaptations of the organelle to perform its function. (2 mks)
.....
.....
.....
.....

c) Name the cell organelle where ribosomes are made. (1 mk)
.....
.....
.....

7. Explain three adaptations of the sperm cell to perform its function. (3 mks)
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8. An experiment was set up as shown below. Two potato cylinders of equal girth and length were put in different solutions as shown.



The set up was allowed to stand for 2 hours. The two cylinders were then removed.

a) State two observations in set up A. (2 mks)
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b) Explain your observations in (a) above. (2 mks)

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c) Explain what happened to the cylinder in set up B. (3 mks)

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9. In rabbits, black fur colour is dominant over white. A homozygous black male was crossed with a heterozygous female.

a) Make a cross to show the above mating. (4 mks)

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b) State the genotypic ratio of the offspring. (1 mk)

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10. Name the gaseous exchange sites in

- (i) Man _____
 - (ii) Fish _____
 - (iii) Insect _____
- mks)

(3

11. Describe double fertilization in flowering plants (4 mks)

(4

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12. Explain how blood sugar level is maintained constant in human blood. (3 mks)

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13. Define

(i) Population (1 mk)

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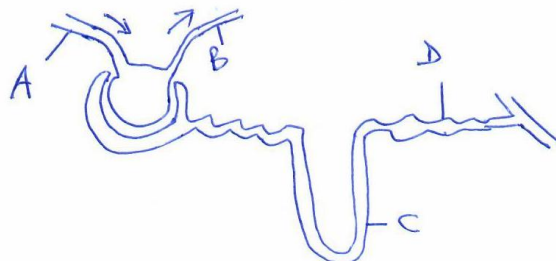
(ii) Growth (1 mk)

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14. Name two internal factors necessary for seed germination. (2 mks)

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15. Diagram below represent a kidney nephron.



1. List two substances present in blood in A but absent in blood in part labelled B. (2 mks)

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2. Name the parts D and C. (2 mks)
D

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.....
C
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.....

3. In which region of kidney is part labelled C found? (1 mk)

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16. List three differences between aerobic and anaerobic respiration. (3 mks)

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17. a) State two unique characteristics of members of the class crustacea. (2 mks)

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- b) List two characteristics of members of the phylum Arthropoda. (2 mks)

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c) List two unique characteristics of members of the class Mammalia. (2 mks)

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18. How is the mammalian skin adapted for excretion? (3 mks)

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19. State three adaptations of xylem vessels to their function. (3 mks)

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20. The diagram below represents a certain plant.



(a) Suggest the habitat of the plant drawn. (1 mk)

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(b) State two adaptations of the plant to the habitat you have named in (a) above. (2 mks)

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21. Generally, leaves are thin with a large lamina. Explain how the two aspects are significant to a leaf in photosynthesis. (2 mks)

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22. State two major characteristics of the kingdom Plantae. (2 mks)

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23. Name two hormones that take part in the menstrual cycle in a female human being. (2 mks)

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24. State two observable features that differentiate the guard cell from other epidermal cells. (2 mks)

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25. Name the structure formed when a sperm fuse with ovum. (1 mk)

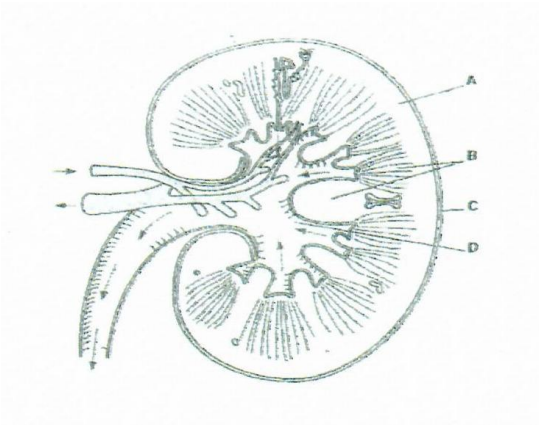
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KCSE MOCK 2020

BIOLOGY
PAPER 2 (THEORY)
TIME: 2 HOURS

SECTION A: 40 MARKS

d) Study the diagram below and answer the questions that follow.



26. Label the diagram.

parts A and D on the
(2mks)

27. State two mammalian kidney.

(2mks)

functions of the

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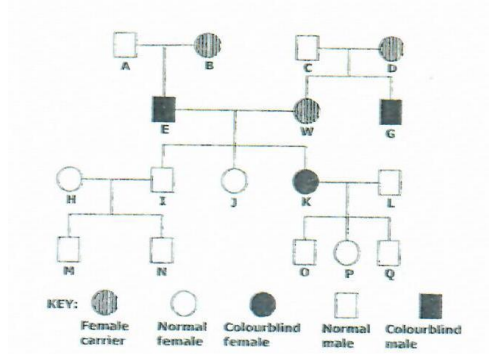
28. Explain how the kidney keeps the concentration of water in the blood constant. (2mks)

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29. State two reasons why plants do not have an elaborate excretory system. (2mks)

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e) The following is a human pedigree showing the transmission of red-green colour blindness. The gene trait is recessive and sex-linked.



(a)

(c) Using R to represent the normal gene for vision and r to represent the gene for colour-blindness, work out the genotype of W.

represent the gene for vision and r to represent the gene for colour-blindness. (4mks)

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(d) What is the percentage of male sufferer in the cross above? (1mk)

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(b) Explain the meaning of the term sex-linked with respect to the gene that controls the red-green colour blindness. (1mk)

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(c)

a) In which sex is the occurrence of colour blindness more common. (1mk)

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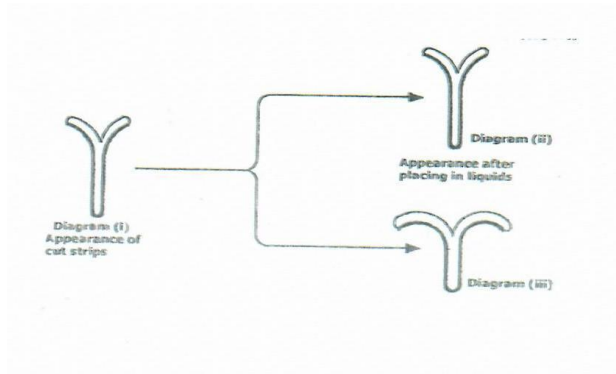
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- b) Give the reason for your answer in question c (i) above.
(1mk)

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- f) Two strips of a herbaceous plant stems were cut as shown below.



Each was resulting in diagram (ii)

placed into a liquid appearance shown in and (iii).

d) Account for the observations made in

diagram (iii).

(4mks)

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- e) Explain the similarity in appearance between diagram (i) and (ii).
(2mks)

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- f) Draw a diagram to show the appearance of the stem strip in diagram (ii) after staying in hypertonic solution for 30 minutes.
(1mk)

g) State one factor that affects the rate of active transport.

(1mk)

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4.

(iii) Define the term immunity.

(1mk)

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(iv) Differentiate between 'Natural passive immunity' and 'artificial passive immunity.

(2mks)

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(v) State two functional differences between pulmonary artery and pulmonary vein. (2mks)

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(vi) State two importance of blood clotting.

(2mks)

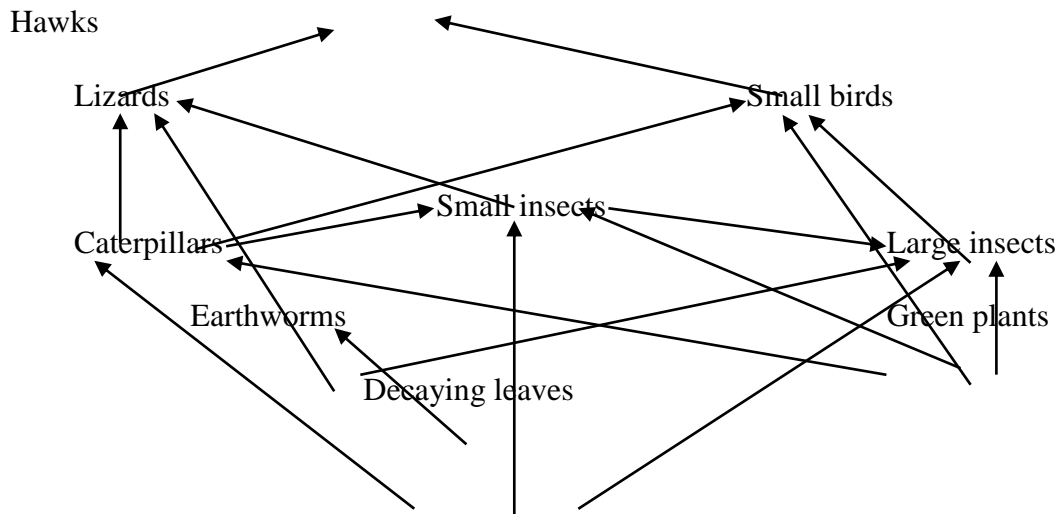
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(vii) What do you understand by the term counter-current flow system as applied in gaseous exchange in fish?

(1mk)

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(iv) The diagram below represents a food web in a certain ecosystem.



- c) Name the trophic level occupied by each of the following.
- (i). Caterpillars.....
(1mk)
- (ii). Small insects.....
(1mk)
- d) From the food web, construct two food chains which end with lizards as a tertiary consumer.
(2mks)
-
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- e) (i) Which organisms have the least biomass in the ecosystem?
(1mk)
-
- (ii) Explain the answer in c (i) above
(3mks)
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SECTION B: (40MKS)

INSTRUCTION: Answer question 6 (compulsory) and either question 7 or 8 in the space provided after question 8.

(v) In an experiment to investigate a certain process in a given plant species, the rate of carbon (IV) oxide consumption and the rate of carbon (IV) oxide release were measured over a period of time of the day. The results of the investigation are shown in the table below.

Time of day (Hrs)	6	8	10	12	14	16	18	20	22	24
CO ₂ consumption (mm ³ min ⁻¹)	10	43	69	91	91	50	18	0	0	0
CO ₂ Release (mm ³ min ⁻¹)	38	22	10	3	3	6	31	48	48	48

(iii) On the same axes, plot graphs of volumes of carbon (IV) oxide against time. (7mks)

(iv) Name the biochemical process represented by.

(a) Carbon (IV) oxide consumption.

(1mk)

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.....

(b) Carbon (IV) oxide release.

(1mk)

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(v) Account for the shape of the curve for;

4. Carbon (IV) oxide consumption between 6 to 12 hrs.

(3mks)

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5. Carbon (IV) oxide release between 14 to 20hrs.

(3mks)

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(vi)

d) From the graph, state the time of the day when the plant attains compensation point. (1mk)

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e) State two factors that affect the rate of carbon (IV) oxide release by a plant.

(2mks)

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(vii) Explain how temperature affects the rate of Carbon (IV) oxide consumption in a plant.

(2mks)

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(vi)

(a) Explain the mechanism of opening and closing of the stomata using photosynthetic theory. (6mks)

(b) Explain the breathing process in man. (14mks)

8. Describe the role of hormones in the human menstrual cycle. (20mks)

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KCSE MOCK 2020

BUSINESS PP1

JOINT EXAMINATION MOCK 2020

Kenya Certificate of Secondary Education (K.C.S.E)

1. Highlight **four** ways in which the government can ensure a clean environment. (4 Marks)

2. State **four** ways in which commerce facilitates the satisfaction of human wants.(4 Marks)

3. Outline **four** characteristics of an entrepreneur. (4 Marks)

4. State **four** importance of a good business plan. (4 Marks)

5. Highlight **four** reasons that would discourage you from joining a partnership. (4 marks)

6. State **four** disadvantages of a public warehouse. (4 Marks)

7. Outline **four** reasons that can make a firm use competitive advertisement. (4 Marks)

8. Outline **four** features of an oligopoly market. (4 Marks)

9. The demand for rental houses has continued to decline in Kangari market. State **four** factors that could have contributed to this. (4 Marks)

10. Highlight **four** benefits of privatizing government parastatals. (4 Marks)

11. Hamisi started a business on 1st January with a capital of shs.350, 000. During the year the following transactions took place.

- i. Realized a profit of shs.47,000.
- ii. Brought into the business equipment valued at Shs. 50,000
- iii. Made drawings amounting to shs. 20,000.

Determine Hamisi's final capital. (4 Marks)

12. Outline **four** factors that should be considered when buying an office machine. (4 Marks)

13. State **four** advantages of mail order businesses. (4 Marks)

14. Mention **four** disadvantages of containerization in transport. (4 Marks)

15. Highlight **four** challenges that are faced by developing countries in calculating national income. (4 Marks)

16. State **four** factors that should be taken into account when deciding on the types of goods and services to produce. (4 Marks)

17. Outline the way different parties are interested in the information contained in the balance sheet. (4 Marks)

18. State **four** factors that influence the transaction motive of holding money. (4 Money)

19. Highlight **four** roles that are played by banking in the economy of a country. (4 Marks)

20. The following information relates to Marumi Traders on 1st July 2015.

	shs.
Opening stock	40000
Closing stock	55000
Purchases	200000
Margin	25%

Required: Draw Marumi Traders' trading account. (4 Marks)

21. Outline **four** advantages that may be attributed to a high population growth rate. (4 Marks)

22. Highlight **four** reasons that may make an insurer not to compensate an insured. (4 Marks)

23. Highlight **four** advantages of using cell phones within and outside an organization. (4 Marks)

24. Highlight **four** reasons why the Kenya Consumer Organization has been ineffective. (4 Marks)

25. Outline **four** advantages of source documents. (4 Marks)

KCSE MOCK 2020

BUSINESS PP2

Answer any five questions in this paper.

1(a) Explain **five** circumstances under which a manufacturer would find it necessary to sell his product direct to consumer.

(10 Marks)

(b) Explain **five** factors a manager would consider before buying office equipment for the organization.

(10 Marks)

2(a) Explain **five** benefits that will accrue to the Kenyan government when drilling of Turkana oil wells will be completed.

(10 Marks)

(b) Highlight **five** reasons why the government may find it necessary to participate in business activities.

(10 Marks)

3(a) With the aid of a diagram, explain the effects of changes in consumer incomes on the demand curve.

(10 Marks)

(b) Highlight **five** ways in which the transport industry contributes to development of the Kenyan economy.

(10 Marks)

4(a) Explain **five** ways in which the central bank may control the supply of money in the country. (10 Mks)

(b) The following trial balance relates Hazina Traders as at 31st December 2015.

**Hazina Traders,
Trial Balance,
As at 31st December 2015.**

Particulars	Dr.(Sh)	Cr(Sh)
General expenses	120,000	
Rent	46,000	
Telephone	48,000	
Salaries	360,000	
Sales and purchases	2,600,000	4,000,000

Discounts received		36,000
Sales returns	40,000	
Motor Vehicle	500,000	
Debtors	300,000	
Land and Buildings	2,000,000	
Cash at bank	120,000	
Cash in hand	12,000	
Capital		1,950,000
Drawings	<u>80,000</u>	
Creditors		<u>24,0000</u>
	<u>6,226,000</u>	<u>6,226000</u>

Additional information:

Stock as at 31st December was ksh. 100,000.

(i) Prepare trading, profit and loss account. (7 Marks)

(ii) Calculate return on capital. (3 Marks)

5(a) Explain **five** limitations of using per capita income to compare standards of living in different countries. (10 Marks)

(b) Outline **five** causes of unemployment in Kenya. (10 Marks)

6(a) Explain four macro-environmental factors that might adversely affect the performance of a business. (8 Marks)

(b) On 1st March 2014, Kendi had cash in hand sh.7800 and a bank overdraft of shs.23,400. During the month, the following transactions took place:

March 3: Cash sales sh6,500 paid direct into the bank.

“ 4: Bought goods for shs.15,000 and paid by cheque.

“ 6: Cash sales sh.50,000.

“ 9: Received a cheque for Sh.76,500 from Amolo in settlement of his debts.

“ 13: Paid insurance premium sh. 16,000 in cash.

“ 14: Paid Kamotho by cheque Sh.9,700 in full settlement of his account having deducted 3% cash discount.

“ 17: Cash sales Sh.150, 000 paid direct to bank.

“ 21: Withdrew Sh 30,000 from bank for office use.

“ 23: Received a cheque of sh 23,750 from Rotich in full settlement of his account less

5% cash discount.

“ 25: Paid wages of shs. 20,000 in cash.

“ 26: Cheque received from Amolo was dishonored.

“ 30: Banked all cash except Sh 3,000.

Prepare a three-column cash book duly balanced. (12 Marks)

KCSE MOCK 2020

Name

Index No.

ADMISSION NUMBER:

233/1

CHEMISTRY

Paper 1

JULY 2020

Time: 2 Hours

1. Al^{3+} and Na^+ have the same electron arrangement.

- a) Give the electron arrangement. (1 mk)

—

- b) Explain why more energy would be required to remove an electron from Al^{3+} than Na^+ .

(2 mks)

—

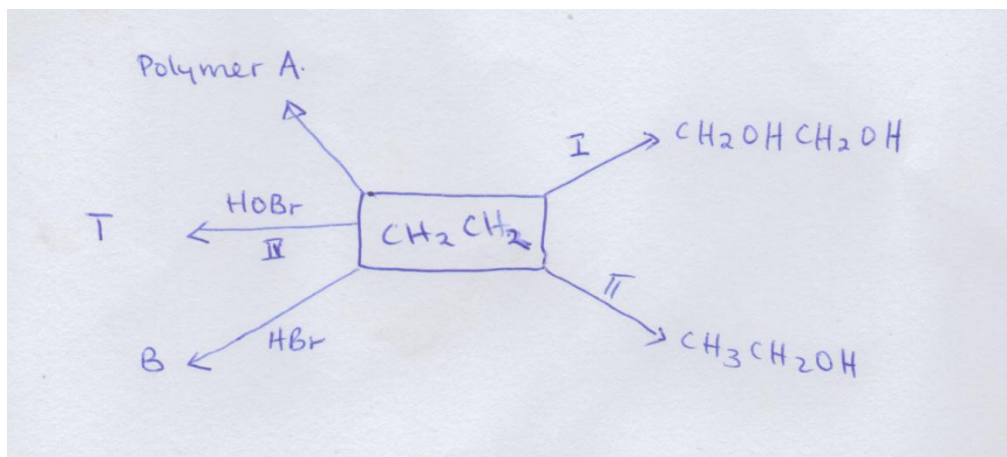
—

- i) In terms of structure and bonding. Explain why at room temperature water is a liquid while Carbon (IV) Oxide is a gas. (2 mks)

—

—

- ii) Study the scheme below and answer the questions that follow:



a) State the condition and reagents required in step I and II.

Condition	Reagents
I	
II	

(2 mk)

b) What observation is made in step (IV).

(1 mk)

c) Give the formula and name of compound B.

(1 mk)

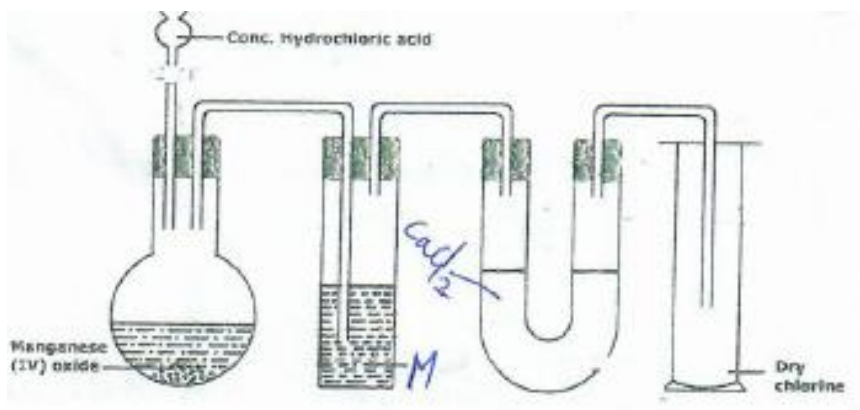
d) Draw polymer A using 4 monomers.

(1 mk)

iii) Write two equations to show that Aluminium Oxide is amphoteric. (2 mks)

(2 mks)

iv) The diagram below shows a set up for preparation and collection of chlorine gas.



- a) What is the function of
- (i) M _____ (1 mk)
- (ii) Manganèse (IV) Oxide _____ (1 mk)
- b) Give two physical properties of chlorine. (2 mk)
- _____
- _____
- c) Chlorine gas is bubbled through aqueous Sodium Bromide.
- i) State the observation made during the reaction. (1 mk)
- _____
- _____
- _____
- ii) What property of Chlorine is shown in this reaction. (1 mk)
- _____
- _____
- v) In an experiment, Sulphur (IV) Oxide gas was bubbled into beaker of water. To the mixture formed chlorine gas was also bubbled. The resulting mixture gave a white precipitate with acidified Barium Chloride. Explain these observations (3 mks)

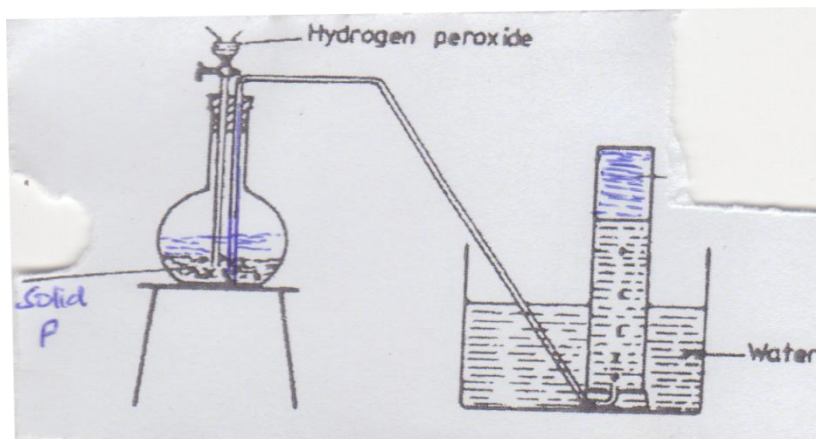
vi) 30 cm^3 of 0.2M Sulphuric (VI) acid were reacted with 30 cm^3 0.2M Sodium hydroxide.

a) Write an equation for the reaction that took place. (1 mk)

-

b) State and explain the observations that were made when phenolphthalein indicator was added to the mixture. (2 mks)

vii) The diagram below shows a set up for preparation of oxygen gas.



a) Name solid P. (1 mk)

-

b) Write an equation for the reaction that took place. (1 mk)

-

—

c) Name 2 other reagents that could be reacted in the set up above to produce oxygen. (1 mk)

—

viii) When excess Lead (II) Nitrate was reacted with Sodium Chloride a precipitate weighing 5.56g was formed. Determine the Mass of Sodium Chloride that reacted. (3 mks)
(pb=207, cl=35.5, Na=23)

—

—

—

ix) A sample of water is suspected to contain Sodium Sulphate. Given the following describe 2 tests to be carried out to confirm presence of Sodium Sulphate in water.

Glass rod

Flame

Acidified Barium Nitrate

Test Description	Observation	Inferences
1 mk	1 mk	(1 mk)
1 mk	1 mk	1 mk

x) State and explain the observations made when Hydrogen Sulphide gas is bubbled through a solution of Iron (III) Chloride. (2 mks)

—

xi) In an experiment Hydrogen Chloride gas is bubbled through separate beakers containing water and Methyl benzene. Explain what happens when Magnesium is added to the solutions formed.

(2 mks)

xii) Study the formation in the table below and answer the questions that follows:-

Salt	Solubility (g/100g of water)	
	60°C	30°C
Copper Nitrate	40	25
Magnesium Chloride	90	70

A mixture of 38g of Copper Nitrate and 66g Magnesium Chloride in 100g of water at 70°C is cooled to 30°C.

a) Which salt will crystallise out and what mass of crystals is collected? (2 mks)

b) Name the above method of separation. (1 mk)

xiii) a) What is hard water? (1 mk)

b) Give an advantage and a disadvantage of using hard water.

Advantage _____ (1 mk)

Disadvantage _____ (1
mk)

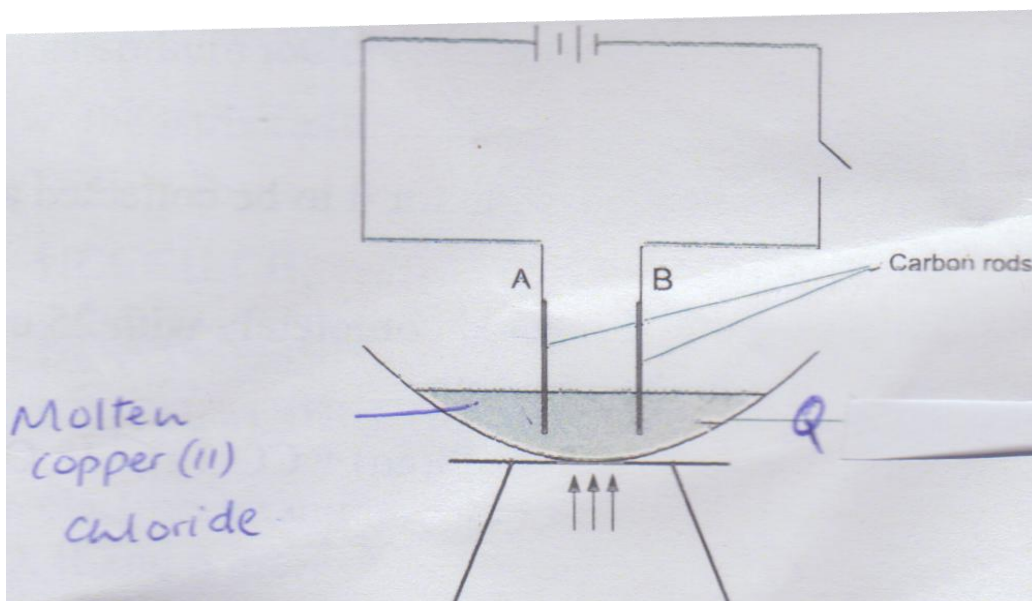
xiv) Draw and name 2 isomers of C_4H_9Br .
(2 mks)

xv) a) What is an efflorescent salt?
(1 mk)

b) Give an example of an efflorescent salt. (1
mk)

xvi) An element X has two isotopes ^{35}X and ^{37}X . Calculate percentage abundance
of each isotope if the relative atomic mass of X is 35.5.
(3 mks)

xvii) The diagram below shows a set up of apparatus which was used to investigate
the effects of an electric current on molten Copper (II) Chloride.



- a) Name apparatus Q. _____ (1 mk)
- b) On the diagram label anode and cathode. _____ (1 mk)
- c) Write equation for the reaction at the anode. _____ (1 mk)
- d) What observation is made at the cathode? _____ (1 mk)
- e) What precaution should be taken when carrying out this experiment? _____ (1 mk)

xviii) Determine the volume of 2.0 m Sodium Hydroxide which when diluted to 250 cm³ would produce a 0.8 m Sodium Hydroxide solution. (2 mks)

xix) In an experiment to determine the molar enthalpy of solution of concentrated Sulphuric (VI) acid, 2cm³ of the concentrated acid was added to 48cm³ of distilled water in a lagged plastic beaker. A temperature rise of 5°C was noted.

- a) Why was the beaker lagged. _____ (1 mk)

-
-
- b) Calculate the molar enthalpy of solution of concentrated Sulphuric (VI) acid.
(Density of solution = 1g/cm^3 , $C=4.2\text{ J/g/k}$, density of concentrated Sulphuric acid = 1.84g/cm^3 , $H=1$, $S=32$, $O=16$) (3 mks)
-
-
-
-
-

xx) 200 cm^3 1M ethanoic acid and 200 cm^3 1M Hydrochloric acid were separately reacted with marble chips. After thirty seconds it was noted that the volume of gas produced with Hydrochloric acid was higher than with ethanoic acid.

- a) Identify the gas produced. (1 mk)
-
-

- b) Why was the volume of gas produced with ethanoic acid lower? (2 mks)
-
-
-
-

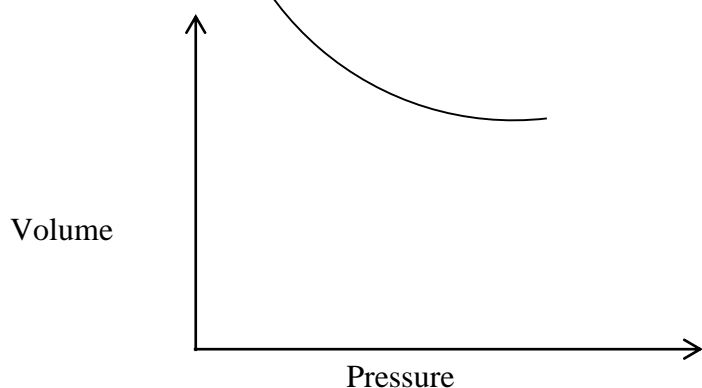
xxi) a) Using dots (.) and crosses (x) to represent electrons show bonding in the following.

- i) Water ($H=1$, $O=16$) (1 mk)

- ii) Calcium Oxide ($Ca=20$, $O=16$) (1 mk)

iii) Give two properties of substances with giant ionic structures. (2 mks)

xxii) The graph below shows the relationship between pressure and temperature of a gas in a closed system.



a) What is the relationship between pressure and volume? (1 mk)

b) Whose gas law is represented in the graph? (1 mk)

xxiii) When 2.5 g of hydrated Sodium Carbonate ($\text{Na}_2\text{CO}_3 \cdot x\text{H}_2\text{O}$) was reacted with excess Hydrochloric acid, 300cm^3 of Carbon (IV) Oxide was collected at room temperature and pressure.

Calculate the value of x in one mole of hydrated Sodium Carbonate (H=1, C=12, O=16, $\text{MGV}=24000\text{cm}^3$). (3 mk)

xxiv) A student was supplied with a colourless liquid suspected to be water.
a) Describe two chemical tests that could have been done to confirm the liquid is water. (2 mks)

b) Give one physical property of pure water. (1 mk)

xxv) Graphite is one of the allotropes of Carbon.

a) What are allotropes? (1 mk)

-

b) Explain why graphite is soft. (2 mks)

xxvi) What name is given to elements between group (II) and group (III) in the periodic TABL

KCSE MOCK 2020

233/2

CHEMISTRY

Paper 2

JULY 2020

Time: 2 Hours

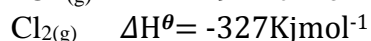
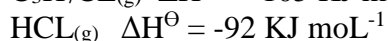
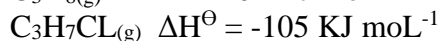
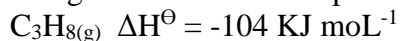
In an experiment of diluting concentrated sulphuric (vi) acid, 2 cm^3 of acid were carefully poured into a plastic beaker containing exactly 40 cm^3 of distilled water with a room temperature of 20°C . The mixture was stirred with a thermometer; the highest temperature noted was 35°C . (Density of acid = 1.84 g/cm^3 while that of solution is assumed to be 1 g/cm^3 . The acid is 98% pure, S.H.C. = $4.2 \text{ J/g}^\circ\text{C}$ H = IS = 32 O = 16)

a). i). Determine the number of moles of the acid that dissolved (2 mks)

ii). Determine the enthalpy change for the reaction. (2mks)

iii). Determine the enthalpy change when one more of the acid is dissolved in water. (2 mks)

b) The following are standard enthalpies of formation for some compounds.

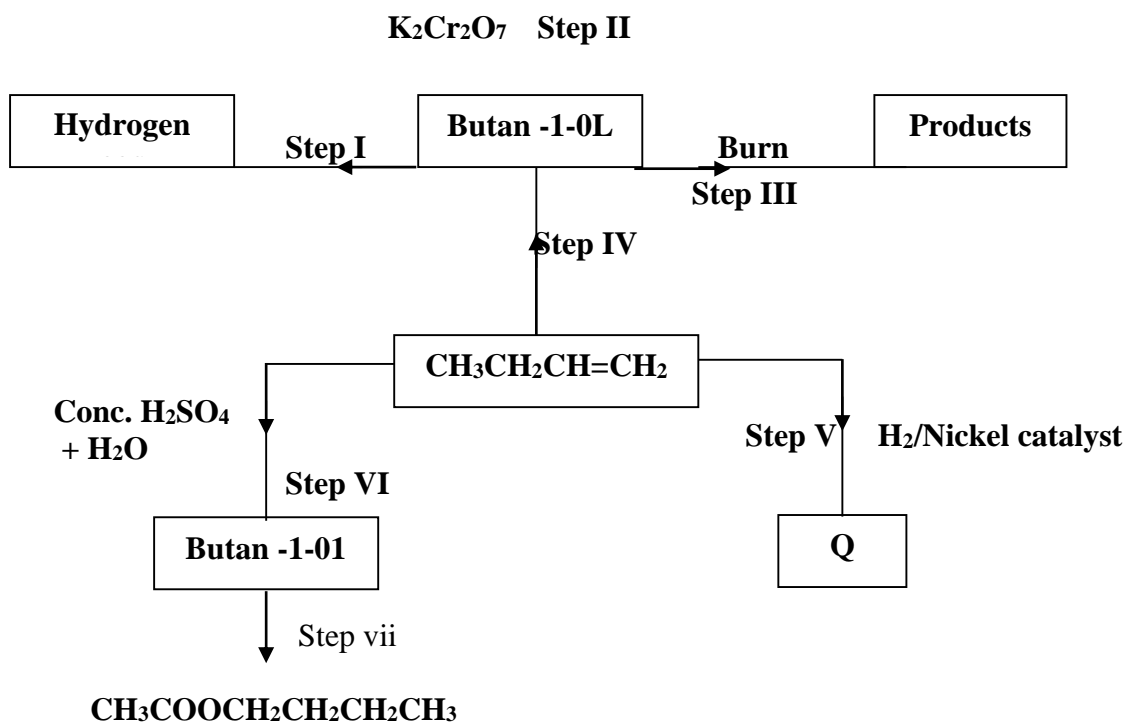


Calculate the enthalpy change for the reaction below (3 mks)



2. Use the information in the scheme below to answer the questions that follow.

P



- a) Name substance P
(1mk)
- b) Give the structure and name of compound Q.
(1mk)
- c) Write the equation for the chemical reaction in steps III
(1mk)
- d) Name the reagents and conditions necessary for the reaction in
(i) Step IV

Reagents
(1mk)

Conditions
(1mk)

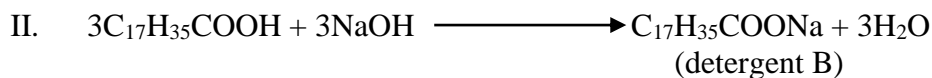
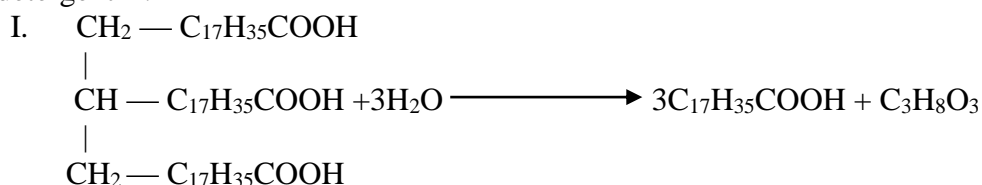
(ii) Step VII

Reagents
(1mk)

Conditions
(1mk)

e) What name is given to the reaction in step VII?
(1mk)

f) Below are **two** reactions showing how a long chained alkanolic acid can be converted into detergent B.



(i) Name the type of reaction in
(2mks)

I

II

(ii) Give **one** disadvantage of using detergent B in washing clothes.
(1mk)

3. The grid below represents part of the periodic table (The letters do not represent the actual symbols of the elements).

				D	F	
A				E		
B	C				G	

(a) (i) Select an element that can form an ion with a charge of -2. (1 mark)

(ii) What type of structure will the chloride of A have. (1mark)

(iii) Explain how the reactivities of F and G. Compare (1mark)

(iv) Compare the atomic radius of C with that of B. (1 mark)

(b) 2.5g of A react completely with 1.2dm³ of gas F at S.T.P.

(i) Write a balanced equation for the reaction of A and gas F. (1 mark)

(ii) Determine the relative atomic mass of A (Molar gas volume at s.t.p = 22.4dm³) (3 marks)

(c) B and E burn in oxygen to form oxides.

(i) State which of the two oxides is basic and which is acidic. (2 marks)

(ii) Write down the formulae of the oxides of B and E

(2 marks)

B

E

(d) An element Z consists of isotopes of masses 10 and 2 with percentage composition 18.7% and 81.3% respectively. Determine the relative atomic mass of Z

(2 mks)

4. (a) Electrolysis is used to electroplate objects among other uses. With the help of a diagram

describe how you can copper plate an iron spatula.

(2mks)

(b) A concentrated solution of sodium chloride is electrolysed using carbon electrode. An electric current is passed through the solution for 15 minutes. The volume of the gas produced at the cathode is 447.6cm^3 . Calculate the current used. (Molar gas volume at r.t.p = 24 dm^3 , $1\text{F} = 96500\text{C}$).

(3mks)

- (c) Study the standard electrode potentials for the elements given below and answer the questions that follow. The letters are not the actual symbols of the elements.

Half reaction	E^0 volts
$Q_{2(aq)} + 2e \longrightarrow 2Q_{(aq)}^-$	+ 2.87
$R_{2(g)} + 2e \longrightarrow 2R_{(aq)}^-$	+ 1.36
$S_{(aq)}^+ + 2e \longrightarrow S_{(s)}$	+ 1.23
$2T_{(aq)}^+ + 2e \longrightarrow T_{2(s)}$	0.00
$U_{(aq)}^{2+} + 2e \longrightarrow U_{(s)}$	- 0.13
$V_{(aq)}^{2+} + 2e \longrightarrow V_{(s)}$	- 0.76

- (i) What is the E^0 value of the weakest reducing agent?
(1mk)
- (ii) Draw and label an electrochemical cell between elements S and V.
(3mks)
- (iii) Determine the electromotive force E^0 value of the electrochemical cell
in (ii)
above.
(1mk)

(d) In an electrolysis of a molten metal halide, a current of 1.25A was passed for 20 minutes

(i) Calculate the quantity of electricity used (1 mk)

(ii) Determine the mass of the metal deposited given that the metal is divalent [R.A.M of metal M = 207; IF = 96,500c]

(2 mks)

5. Lead (II) oxide reacts with both Nitric (V) acid and Potassium hydroxide solution

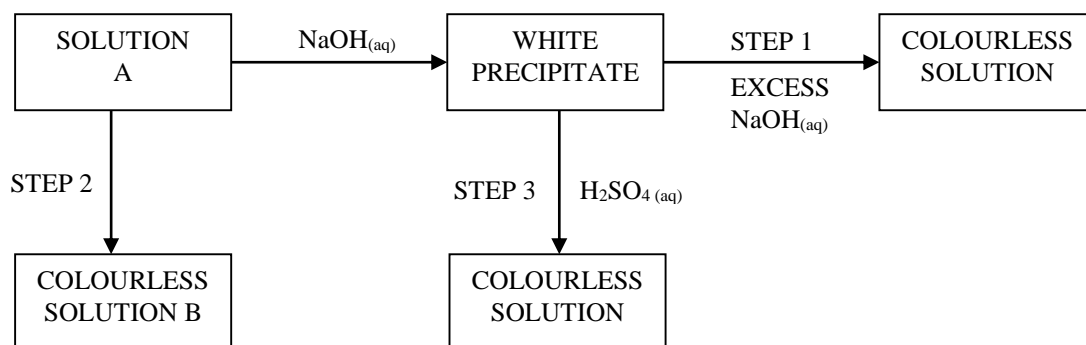
(a) What property of Lead (II) oxide is shown by these reactions? (1 mk)

(b) Write an equation for the reaction between:

I. Lead (II) oxide and Potassium hydroxide (1 mk)

II. Lead (II) oxide and Nitric (V) acid (1 mk)

(c) The flow chart below shows a reaction scheme starting with solution A



(i) Name the type of reaction taking place in step 3 (1 mk)

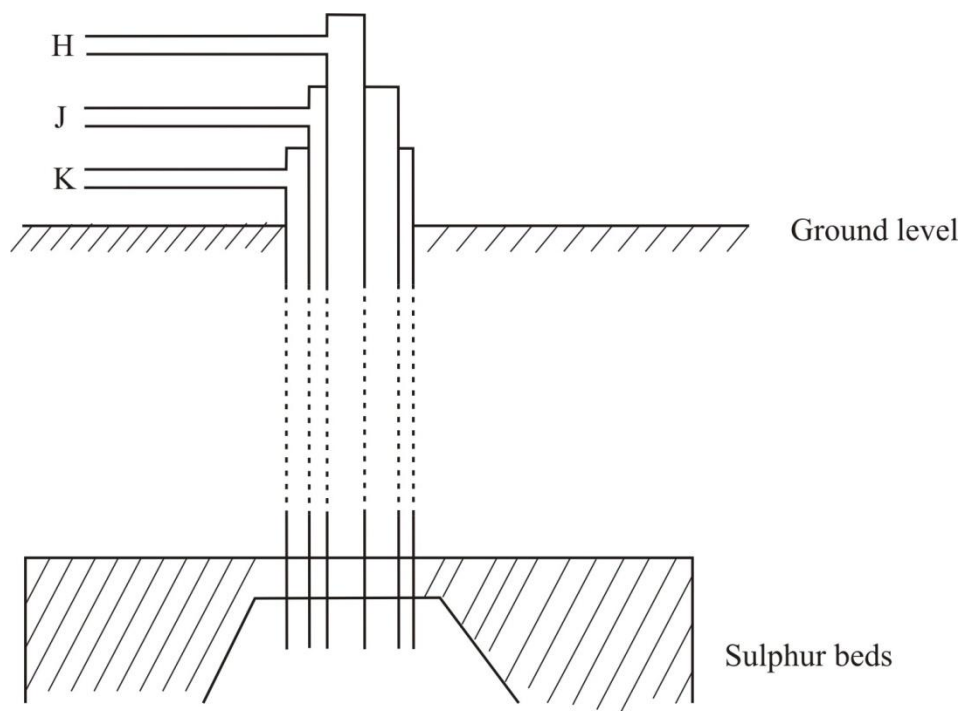
(ii) Identify the cation present in solution A (1 mk)

(iii) Write the formula of the complex ion present in solution B (1 mk)

(d) (i) A solution of Hydrogen chloride gas in Carbon tetrachloride does not provide bubbles when marble chips are placed in it, while a solution of the same gas in water provides bubbles. Explain (2 mks)

(ii) Calculate the volume of 3M Hydrochloric acid that is needed to react completely with 0.4g of Calcium powder (Ca = 40) (3mks)

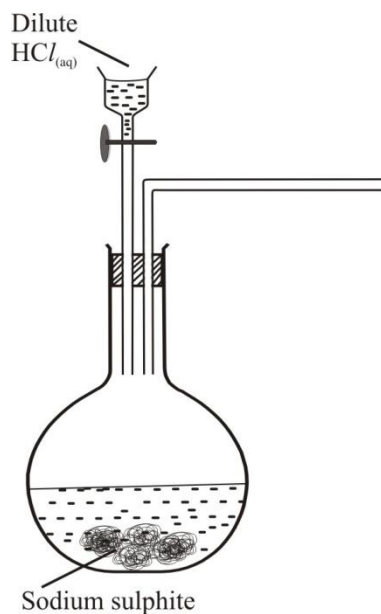
6 (a) The diagram below illustrates how sulphur is extracted by the Frasch process



- i) Which pipe is the hot compressed air pumped in?
(1 mark

- ii) State one physical properties that enables the sulphur to be extracted by frasch process. (1mark

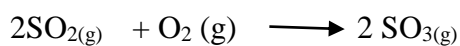
b) The diagram below shows an incomplete set-up used to prepare and collect sulphur(IV)oxide gas.



- i) Complete the diagram to show how a dry sample of sulphur(IV)oxide gas can be collected. (2marks)
- ii) Write an equation for the reaction in the flask.
(1mark)
- iii) State the observation made when sulphur (IV) oxide gas is bubbled through iron (III) sulphate solution in a test-tube.

(1mark)

- c) The equation below shows the oxidation of sulphur (IV) oxide to sulphur(VI)oxide in contact process.



- i) Name one catalyst for this reaction.

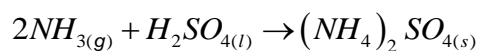
(1 mark)

- ii) Describe how sulphur (VI)oxide is converted to sulphuric(VI)acid in the contact process. (2marks)

- iii) Give one reason why it is necessary to use a pressure of 2 to 3 atmospheres and not more in the contact process.

(1mark)

- d) Ammonium sulphate is a fertilizer produced by passing ammonia gas into concentrated sulphuric(VI)acid as shown in the equation below;



Calculate the mass in kg of sulphuric(VI)acid required to produce 25kg of the fertilizer.

(S=32.0, O=16.0; N=14.0; H=1.0)

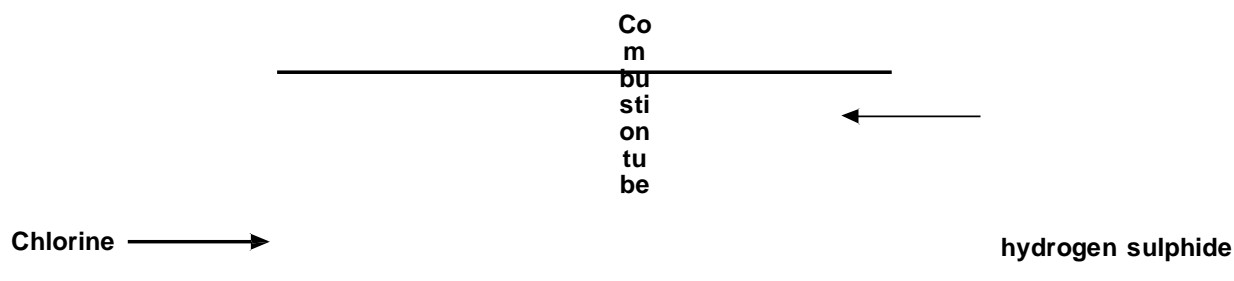
(3marks)

7. a) State Graham's law of diffusion.

(1 mark)

- b) An experiment was carried out to compare the rates of diffusion of chlorine gas and

hydrogen sulphide gas. (H=1, S=32, Cl=35.5)



For Marking Schemes Call 0705525657

i) What observation was made in the combustion tube? (1 mark)

ii) Indicate where the observation in (i) above would occur. (1 mark)

iii) It takes 15 seconds for 45cm^3 of chlorine to diffuse through the combustion tube. How long will it take 135cm^3 of hydrogen sulphide to diffuse under similar conditions? (3 marks)

c) i) Complete the table below involving variation of volume with pressure at constant temperature.

(3 marks)

Pressure (Pascals)	101325		103221	
Volume (cm^3)	80	100		120

ii) State the law being investigated in (i) above. (1 mark)

KCSE MOCK 2020

CRE PAPER 1 EXAM

INSTRUCTIONS TO CANDIDATES

1. This paper consists of **six** questions.
2. Answer any **FIVE** questions in the answer booklet provided.

1.
 - a) Mention five versions of the Bible used in Kenya today.(5mks)
 - b) Explain four differences between the first creation account and the second creation account.(8mks)
 - c) State the effects of translating the Bible into local languages.(7mks)
2.
 - a) Outline 7 activities that were carried out during the night of the Passover by the Israelites.(7mks)
 - b) Give 7 characteristics of God revealed to Moses during the renewal of the covenant.(7mks)
 - c) State 6 challenges that Christians face when practicing their faith in Kenya today.(6mks)
3.
 - a) State 7 functions of the temple to the Jewish community.(7mks)
 - b) Mention seven lessons that Christians learn from Saul's failures.(7mks)
 - c) How do Christians fight corruption in Kenya .(6mks)
4.
 - a) Give 6 reasons why God sent prophets in Israel.(6mks)
 - b) Mention four visions of Amos and their significances .(8mks)
 - c) List six characteristics of true prophets of God in today's society.(4mks)
5.
 - a) Outline six evils addressed by Jeremiah during his temple sermon.(6mks)
 - b) Explain Jeremiah's suffering and lamentations in his prophetic mission.(8mks)
 - c) Give 6 reasons why Christians should pray.(6mks)
6.
 - a) State seven importance of kinship in traditional African communities.(7mks)
 - b) Give seven roles of the living towards God in traditional African communities.(7mks)
 - c) Mention 6 moral values acquired during initiation rites.(6mks)

KCSE MOCK 2020

C.R.E PAPER 2 EXAM

INSTRUCTIONS TO CANDIDATES

1. This paper consists of **six** questions.
2. Answer any **FIVE** questions in the answer booklet provided.
 1.
 - a) Narrate the annunciation of the birth of the Messiah.(7mks)
 - b) How did Jesus fulfil the prophecies of the suffering servant.(8mks)
 - c) Evidence to show that Jesus came from a humble background.(5mks)
 2.
 - a) State seven reasons why Jesus was baptized.(7mks)
 - b) Narrate the raising of the widow's son in Luke 7:11-17.(7mks)
 - c) Give the importance of the transfiguration of Jesus.(6mks)
 3.
 - a) Give six teachings of Jesus on the cost of discipleship.
 - b) Give 8 reasons why Jesus used the parable of great feast in his teaching in his teaching(8mks)
 - c) How do Christians prepare themselves for end times?(6mks)
 4.
 - a) Outline Six teachings of Jesus on the role of the Holy spirit.(6mks)
 - b) Explain the teachings of Saint Paul on the similarities between the church and the husband wife relationship in Ephesians. (8mks)
 - c) State six activities the churches engage themselves in today to show love for others.(6mks)
 5. What are the cause of prostitution in the society today 7mks
Identify 7 factors one should consider when choosing a marriage partner 7mks
Explain four ways in which Christians couples can demonstrate responsible parenthood .(6mks)
 6.
 - a) Give 8 reasons why it is necessary for Christians to work
 - b) State 7 rights of employers
 - c) Outline 6 ways in which the church is helping to reduce the rate of unemployment in kenya

KCSE MOCK 2020

JOINT EXAMINATION MOCK 2020

Kenya Certificate of Secondary Education

GEOGRAPHY PP1

(312/1)

SECTION A

Answer ALL questions in this section

- Q1 (a) Define the term mineral (1mk)
(b) Distinguish between porous and pervious rocks (2mks)
- Q2 (a) Define the term environment (1mk)
(b) Give two types of environment (2mks)
- Q3 Describe the origin of the continents according to the theory of continental drift (5mks)
- Q4 (a) Give three examples of mechanically formed sedimentary rocks (3mks)
(b) State two changes that occur in sedimentary rocks when they are subjected to intense heat and pressure (2mks)
- Q5 (a) Name two processes of wind erosion (2mks)
(b) State three reasons why wind is an effective agent of erosion in hot deserts (3mks)

SECTION B

Answer question 6 and any other 2 questions in this section.

Q6 Study the map of Oyugis 1:50,000 (sheet 130/1) provided and answer the following questions.

- (a) (i) What type of map is Oyugis map extract? (1mk)
(ii) Give two types of scales that have been used in the map extract (2mks)
(iii) What is the longitudinal extent of the area covered by the map (2mks)
(iv) What is the latitudinal location of the air strip (2mks)
- (b) (i) Identify the methods that have been used to represent relief of the area covered by the map (2mks)
(ii) Name the physical features found in grid square 6842 (4mks)
(iii) Identify the index to the adjoining sheet of Oyugis to the East (1mk)
(iv) Calculate the area to the East of Easting “90” and south of Northing 24 (2mks).
- (c) (i) What is the height of God Nyajanja hill? (2mks)
(ii) Describe the drainage of the area covered by the map (6mks)
(iii) Apart from the forest vegetation, name one other type of vegetation growing in the area represented by the map (1mk).
- Q7 (a) Outline three stages in the cycle of a volcano (3mks)

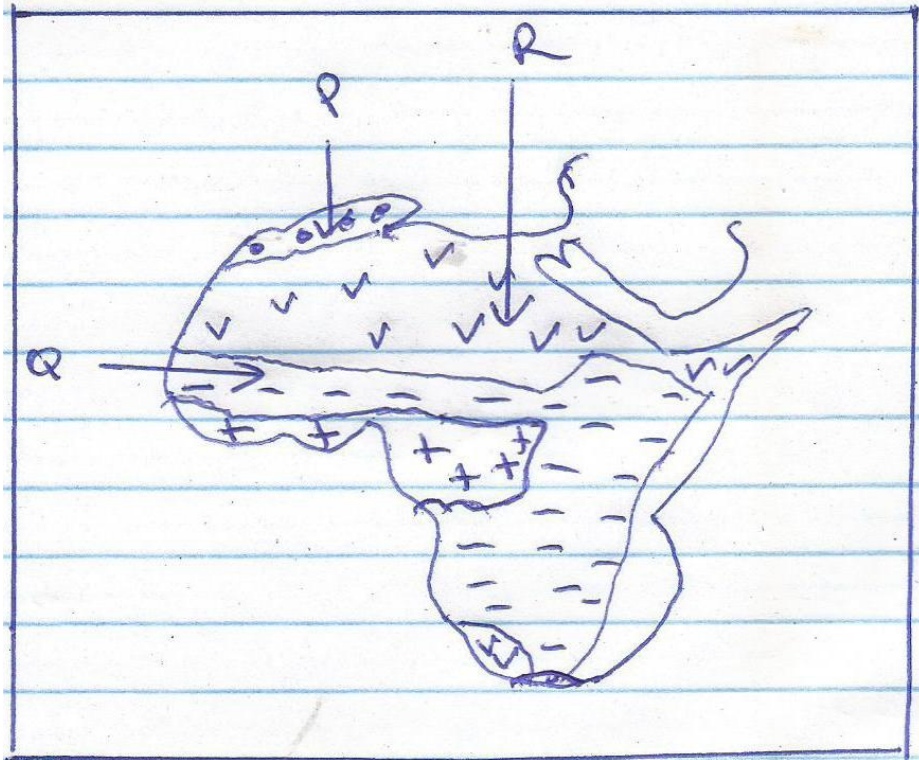
For Marking Schemes Call 0705525657

- (b) (i) Distinguish between a vent and a fissure (2mks)
 (ii) Describe the characteristics of a composite volcano (5mks)
- (c) (i) Outline four causes of earthquakes (4mks)
 (ii) Distinguish between seismic focus and epicentre (2mks)
- (d) Explain the effect of earthquakes on the human environment (8mks)

Q8 (a) Explain how the following factors influence climate

- (i) Latitude (2mks)
 (ii) Distance from the sea (2mks)

(b) Study the climatic map of Africa and answer the questions that follow:



- (i) Name the climatic regions marked P, Q and R (3mks)
 (ii) Describe three characteristics of equatorial climate (3mks)
- (c) (i) What is climate change (1mk)
 (ii) Explain two effects of climate change on the physical environment (4mks)

(d) The table below shows rainfall and temperature figures of a station in Africa.

Month	J	F	M	A	M	J	J	A	S	O	N	D
Temperature	23	24	23	22	19	17	18	19	19	20	22	23
Rainfall in (mm)	109	122	130	76	52	34	28	38	70	108	121	120

- (i) On the graph paper provided, draw a simple bar graph to represent the rainfall figures (use vertical scale of 1cm to represent 10mm). (5mks)
 (ii) Describe the rainfall pattern of the station (2mks).

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- (iii) Calculate the average monthly temperature of the station. Show your working (2mks).
- (iv) Identify the type of climate represented in the table above (1mk)

- Q9 (a) (i) Name three erosional features in glaciated lowlands (3mks)
(ii) Describe the process involved in the formation of a tarn (5mks)
- (b) State three conditions that may lead to glacial deposition in lowlands (3mks)
- (c) Explain four ways in which a glaciated landscape is of significance to human activities? (5mks)
- (d) Supposed students were to carry out a field study on glaciations on Mt. Kenya.
- (i) Give two reasons why they would need a route map (2mks)
 - (ii) Name two types of moraines they are likely to study (2mks)
 - (iii) State two problems they are likely to experience during the study (2mks)
- Q10 (a) State three ways in which underground water may reach the surface (3mks)
- (b) Differentiate between:
- (i) A watershed and a catchment area (2mks)
 - (ii) Confluence of a river and a tributary of a river (2mks)
 - (iii) A marine delta and lacustrine delta (2mks)

(c) Students of a school X carried out a field work in a river system in local environment.

(i) Explain five negative influences of a river to the environment they discovered.

Give

five points (10mks)

(ii) Apart from taking photographs, list three methods of data collection they are likely to use in the field (3mks).

(iii) Outline the disadvantages of using photograph taking as a method of collecting data (3mks)

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KCSE MOCK 2020

NAME _____ ADM _____

CLASS _____ STUDENT _____

SIGNATURE _____

DATE _____

443/1

GEOGRAPHY paper 2

TIME: 2³/₄ HOURS

JULY 2020

SECTION A.

Answer ALL QUESTIONS in this section

1. (a) Give TWO examples of mineral fuels (2 mks)
- (b) State THREE disadvantages of overdependence on crude oil as a source of energy (3 mks)
2. (a) Give THREE physical conditions that favour the growth of tea in Kenya (3 mks)
- (b) Apart from Palm oil, name TWO other products of oil palm tree (2 mks)
- 3.(a) What is a polder? (2 mks)
- (b) State THREE benefits of the Zuider Zee project in the Netherlands (3 mks)
4. (a) Name TWO types of trade (2 mks)
- (b) State THREE problems facing trade in East Africa (3 mks)
5. (a) Differentiate between immigrations and Emmigration (2 mks)
- (b) Give THREE factors leading to immigration. (3 mks)

SECTION B

Answer question 6 and any other TWO questions from this section.

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Q. 6. The table below shows the estimated hardwood production in one of the tropical countries between 2000 and 2004 in millions of tonnes. Use it to answer questions (a) and (b) below

Species	2000	2001	2002	2003	2004
Mahogany	27.3	25	25	30	26
Ebony	3.0	4.0	3.7	4.1	4.0
Rose wood	0.90	1.20	0.90	1.20	0.80
Greenheart	0.37	0.66	0.40	0.50	0.60

- (a) (i) Calculate the total production of Ebony species. **(1 mk)**
- (ii) Which tropical hardwood species has the highest production? **(1 mk)**
- (b) Draw a compound bar graph to represent tropical hardwood production in this country **(8 mks)**
- (c) State FIVE problem hindering exploitation of tropical hardwood forests in Africa (5 mks)
- (d) (i) State FOUR problems facing forest conservation in Kenya **(4 mks)**
- (ii) Explain THREE ways in which the Kenyan government is undertaking to manage and conserve forests **(6 mks)**
- 7.(a) (i) State THREE biotic factors influencing agriculture **(3 mks)**
- (ii) State THREE physical conditions that favour coffee growing in the central highlands of Kenya **(3 mks)**
- (b) Describe the stages involved in coffee production from picking to marketing **(1 0 mks)**
- (c) Give FIVE major difference between coffee growing in Kenya and in Brazil **(5 mks)**
- (d) Your geography class carried out a field study on a coffee farm near your school.
- (i) Name TWO coffee varieties you may have identified **(2 mks)**
- (ii) State TWO methods of data presentation you may have used **(2 mks)**
- 8.(a) (i) Name TWO types of rural settlement patterns **(2 mks)**
- (ii) Apart from urban – rural migration name TWO other types of

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- migration (2
mks)
- (b) State THREE factors that may lead to urban – rural migration (3
mks)
- (c) Apart from pollution explain FOUR problems experience in urban centers (8
mks)
- (d) (i) Name TWO non – food agricultural industries in Thika (2 **mks)**
(ii) Explain FOUR factors that have led to the growth of Thika town as an industrial centre (8
mks)
9. (a) (i) Differentiate between nomadic pastoralism and transhumance (2
mks)
- (ii) Name TWO counties in Kenya where livestock ranches have been established. (2
mks)
- (b) (i) Give THREE food products from pastoral farming (3
mks)
- (ii) State and explain FIVE conditions that favour nomadic pastoralism in Kajiado County. (10 **mks)**
- (c) Suggest measures that the government of Kenya can take to improve nomadic pastoralism (8
mks)
- 10.(a) Differentiate between :-
- (i) Multilateral trade and Bilateral trade (2
mks)
- (ii) Balance of trade and balance of payment (2
mks)
- (iii) Visible trade and invisible trade (2
mks)
- (b) Explain FOUR factors that inhibit trade between countries in the COMESA region
- (c) Highlight the achievements of COMESA (5
mks)
- (d) A school intends to conduct a field study in a trade fair/exhibition in the capital city
- (i) List down THREE methods of data collection they may have used
- (ii) Formulate THREE objectives for the field study (3
mks)

KCSE MOCK 2020

NAME.....DATE.....

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INDEX NO.....CANDIDATES

SIGNATURE.....

441/1

HOMESCIENCE

PAPER 1

(THEORY) 2 1/2HRS

JULY/ AUGUST 2020

SECTION A (40 MARKS)

Answer all the questions in this section in the spaces provided.

1. List down two reasons for covering food during cooking.
(1mk)

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2. (a) What is stitching? (1 mark)

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- (b) Give two qualities of a well-made stitch. (1 mark)

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3. Akinyi was machine stitching her apron then the needle broke suddenly. Give four causes for this. (2 marks)

For Marking Schemes Call 0705525657

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4. Soup is an important part of an invalid diet, give two reasons for this. (2 marks)

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5. Name Two types of beriberi (2 marks)

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6. What is a dessert? (1 mark)

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7. Other than burning test, state two ways of identifying textile fibres. (2 marks)

For Marking Schemes Call 0705525657

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8. List two preparations to make on a fabric before laying out patterns. (2 marks)

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9. Give two reasons for using interfacings in garment construction. (2 marks)

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10. List two reasons why sleeves are used in a garment. (2 marks)

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11. State three disadvantages of hoarding of goods. (3 marks)

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12. Name two nutrient disorders associated with lack of calcium in the body. (2 marks)

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13. Give two reasons why lemon juice is sometimes added to fruit salads. (1 mark)

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14. Give two advantages of being able to draft your own patterns for your garment construction. (2 marks)

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15. Give two reasons for artificial feeding of the baby. (2 marks)

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16. Differentiate between overcasting and oversewing. (2 marks)

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17. Give four factors determining the cleaning efficiency of a detergent. (2 marks)

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18. Give two reasons why fullness is managed in garment during construction. (2marks)

For Marking Schemes Call 0705525657

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19. Give one reason for each of the following practices in cleaning.

(i) Cleaning a glass window from outside to the inside. (1 mark)

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(ii) Cleaning a wall from down to up. (1 mark)

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(iii) Sweeping with low long strokes. (1 mark)

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(iv) Pouring hot water down a kitchen sink drain. (1 mark)

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20. Give two reasons for fitting airbricks on the outer wall of a room. (2 marks)

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SECTION B (20 MARKS)

Compulsory

Answer question 21 in the spaces provided.

For Marking Schemes Call 0705525657

KCSE MOCK 2020

NAME.....Index
Number.....

Candidates signature.....
Date.....

HOMESCIENCE

Paper 2

July 2020

2 ½ hours

A pattern of a Childs bodice is provided.

You are advised to study the sketches, instructions and the layout before you begin the test.

Materials provided:

1. PATTERN PIECES
 - A. FRONT BODICE
 - B. BACK BODICE
 - C. BACK YOKE
 - D. COLLAR
 - E. BACKNECK FACING
2. Plain lightweight cotton fabric 55cm by 91cm wide
3. Sewing thread to match
4. Embroidery thread (one to be used by all candidates)
5. One large envelope.

THE TEST.

Using the materials provided, lay out, cut out and make THE LEFT HALF of Childs dress bodice to show the following processes;

- | | |
|---|------|
| a) Cutting out
mks | 12 ½ |
| b) Making the bust dart
mks | 8 |
| c) Preparation and top stitching of inverted pleat
mks | 5 |

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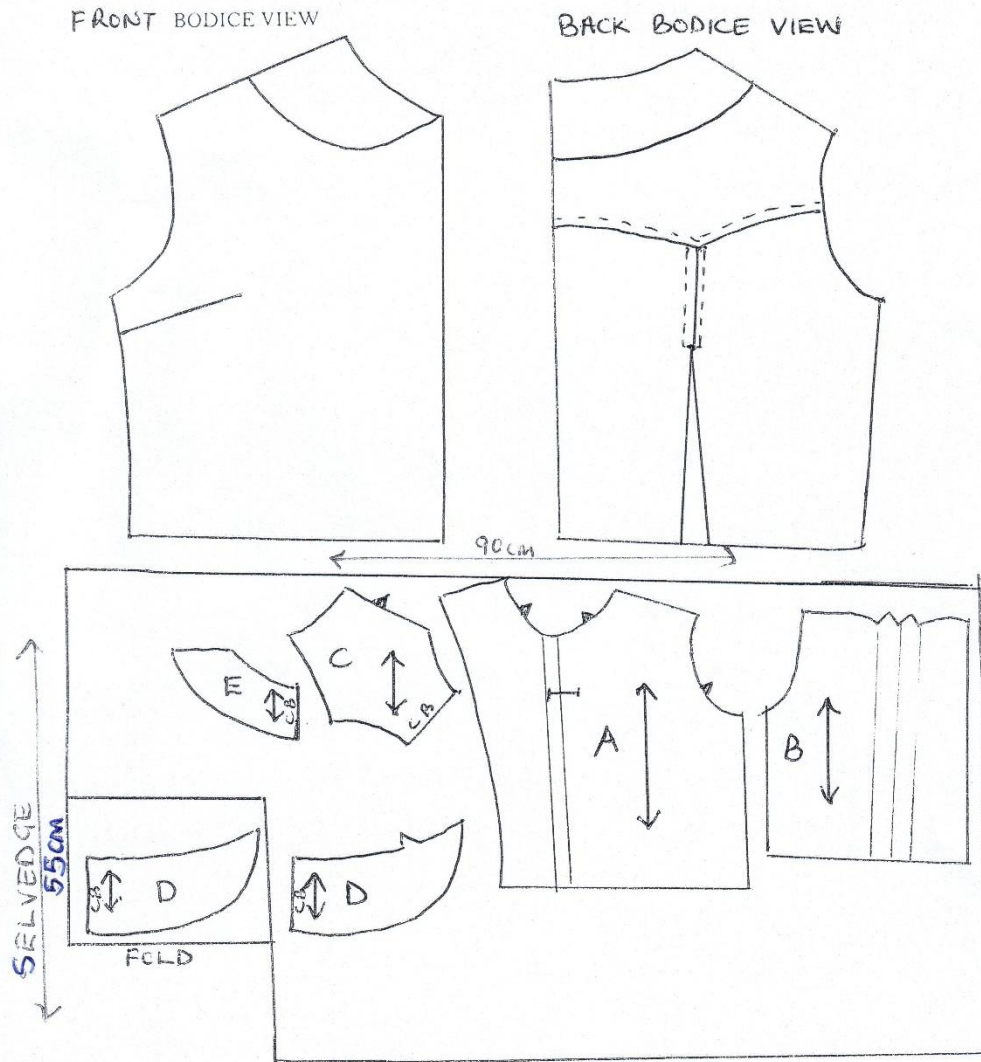
- d) Attaching the back yoke to the back bodice and using the an overlaid seam (Neaten half of it)
8mks
 - e) Preparation of machine fell seam on the shoulder
12mks
 - f) Preparing the interfaced collar demonstrate snipping on the collar
6mks
 - g) Joining the back neck facing to the extended front facing and using it to attach the collar (Neaten the free edges of facing) demonstrate snipping on neckline.
15mks
 - h) Working an open seam on the side seam
9mks
 - i) Working of the buttonhole with rounded ends
4mks
 - j) Embroidering the scroll at the bodice front using chain stitches
mks
- 6 ½

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At the end of the examination, firmly sew onto your work, on a single fabric, a label bearing your name and index number.

Remove the needle, pins and loose threads from your work. Fold your work neatly and place it in the envelope provided.

DO NOT PUT SCRAPS OF FABRIC IN THE ENVELOPE. DO NOT SEAL THE ENVELOPE.



KCSE MOCK 2020

311/1

HISTORY AND GOVERNMENT

PAPER 1

SECTION A (25 Marks)

Answer all the questions in this section in the booklet provided

- 1. Identify the Eastern Cushitic community that displaced the Bantu from Shungwaya (1 mark)**
- 2. Name two Kalenjin speaking communities that remained in Mt. Elgon region during their migration into Kenya. (2 marks)**
- 3. Which was the most common political authority in pre-colonial Kenya? (1 mark)**
- 4. State two religious functions performed by the Oloibon of the Maasai during the pre-colonial period. (2 marks)**
- 5. Mention two treaties signed between the British and the Oman Arab rulers at the coast of the East African to end slavery and slave trade. (2 marks)**
- 6. Give the main factor that led to the decline of Gedi town in the 15th Century. (1 mark)**
- 7. Give two reasons why the constitution is important in Kenya. (2 marks)**
- 8. Outline two social responsibilities of a Kenyan citizen. (2 marks)**
- 9. State the main outcome of the Heligoland treaty of 1890. (1 mark)**
- 10. Mention two natural calamities that weekend the Maasai community in Kenya in the 19th century. (2 marks)**
- 11. Give one political reason why the British constructed the Uganda railway. (1 mark)**
- 12. Give two roles played by women during the Mau Mau uprising (2 marks)**
- 13. Give the main reason why Africans in Kenya were not allowed to grow cash crops during the colonial period. (1 mark)**
- 14. Name the first African to be appointed to the Council of Ministers in Kenya by the colonial government. (1mark)**
- 15. Name the constitution that was rejected by the African Elected members Organisation (AEMO) in 1958. (1mark)**

For Marking Schemes Call 0705525657

16. State two ways through which Independence of the Judiciary is guaranteed in Kenya. (2 marks)

17. Identify the ex-officio member of the Senate in Kenya. (1 mark)

Section B (45 marks)

Answer any three questions from this section in the answer booklet provided.

18. (a) State three characteristics of the culture of the coastal city states by 1500 (3 marks)

(b). Explain six factors that hindered the work of the early Christian missionaries in Kenya (12 marks)

19. (a) State three social effects of colonial rule to the Africans in Kenya. (3 marks)

(b) Explain six reasons why Kenyan communities were defeated by the British during establishment of colonial rule (12 marks)

20 (a) Outline three demands of the white settlers addressed in the Devonshire White Paper of 1923. (3 marks)

(b) Describe six factors that promoted settler farming in colonial Kenya. (12 marks)

21(a) State five African grievances that led to the establishment of political associations after 1919 (5 marks)

(b). Describe five achievements of Prof. Wangari Maathai (10 marks)

SECTION C (30marks)

Answer any two questions from this section in the answer booklet provided

22. (a) State five reasons why national integration is important in Kenya. (5 marks)

(b) Explain five factors which undermine National Unity in Kenya (10 marks)

23 (a) State three disadvantages of democracy (3 marks)

(b) Describe six features of the Kenyan Bill of Rights (12 marks)

24 (a) Give five measures that have been introduced to improve the work of National Police Service (5 marks)

(b). Explain five factors that may undermine the administration of Justice in Kenya (10 marks)

For Marking Schemes Call 0705525657

KCSE MOCK 2020

311/2 HISTORY AND GOVERNMENT PAPER 2

SECTION A: (25 Marks)

Answer ALL questions in this section.

1. Give the name for man's past material culture (1mark)
2. Identify two branches of history (2marks)
3. Give one result of the invention of the wheel in Mesopotamia (1mark)
4. Give two reasons why gold was the first metal to be used by man(2marks)
5. Identify one political feature that formed the basis of the Asante Unity (1mark)
6. Identify two treaties signed between Lobengula and the Europeans (2marks)
7. Identify one political party that participated in Ghana's struggle for Independence (1mark)
8. Name two communes in Senegal where assimilation policy was successful(2marks)
9. State two aims of the International African Association that was formed by King Leopold of Belgium (2marks)
10. Identify one event which occurred in 1917 that led to the end of World War I (1mark)
11. Identify two war weapons that were used in the First World War (2marks)
12. Identify one political reform introduced by President Fredrick De Klerk that led to the achievement of black majority rule in South Africa (1mark)
13. State two European countries that formed the Triple Alliance before the outbreak of the First World War (2marks)
14. Give the main reason for the formation of the League of Nations in 1919 (1mark)
15. Identify two economic results of the First World War (2marks)
16. Give the main reason why the United States of America adopted the marshal plan after the second world war (1mark)

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17. Give the main incident which made Japan to surrender unconditionally to the Allied powers in 1945 (1mark)

SECTION B (45 Marks)

Answer any three questions from this section

18. (a) State five ways in which man used stone tools during the Old Stone Age (5marks)
(b) Explain five problems facing archaeologists in their work of writing History using unwritten sources (10marks)
- 19 (a) State five disadvantages of the open field system of farming in Britain before the Agrarian Revolution (5marks)
(b) Explain five ways that the developing countries can use to reduce the problems of food shortages (10marks)
- 20 (a) State three limitations of Barter Trade during the Trans-Atlantic Trade (3marks)
(b) Explain six factors that led to the decline of the Trans-Atlantic Trade (12marks)
- 21 (a) Outline three challenges faced by factory workers in Europe during the industrial Revolution. (3marks)
(a) Discuss six ways in which the Buganda collaboration with the British reduced the Kabaka influence over the Buganda Kingdom (12marks)

SECTION C (30 marks)

Answer any two questions from this section

- 22 (a) Give five reasons why the British preferred to use British South Africa Company (BSACo) to administer Zimbabwe (5marks)
(b) Explain five reasons why indirect rule failed in Southern Nigeria (10marks)
- 23 (a) Give three reasons that led to the failure of the Von-Schlieffen plan (3marks)
(b) Explain six political causes of the First World War(12marks)
- 24(a) Identify three terms of the Treaty of Versailles of 1919 that affected Germany (3marks)
(a) Explain six achievements of the League Nations between 1919 and 1939 (12marks)

KCSE MOCK 2020

Name..... Index
NO..... Candidate's signature.....
Date.....

314/1

ISLAMIC RELIGIOUS EDUCATION

Paper 1

- a. Give reasons why Quran was revealed in Arabic (7mks)
- b. Give reasons why the nature of revelation changed from short in Makkah to long in Madina (6 mks)
- c. Outline the conditions to be adhered to for translation of Quran to be valid (7mks)

Q 2

- a. Give the benefits of diacritilization of the Quran (5mks)
- b. Highlight the teachings of Suratul Hajurat (8mks)
- c. State the factors that made the compilation of the Quran easy (7mks)

Q3

- a. Differentiate between Hadith Qudsi and the Holy Quran (8mks)
- b. The prophet said “ whoever destroys a plant in Holderness which gives a shelter to passersby without a good reason, Allah will direct his head into hell fire”. In light of the above hadith give the Islamic teachings on the care of the environment (6mks)
- c. Give the characteristics of the golden age of hadith (period of Tabi Tabiun) (6mks)

Q4

- a. Describe the major forms of polytheism (8mks)
- b. Outline the effects of beliefs in the last day to the life of a Muslim (6mks)
- c. Give the importance on belief in Qadar and Qadha (6 mks)

Q5

- a. Differentiate between Sijdatu Shukr and Sijdatul Swalah (6mks)
- b. Describe the performance of Hajji (8mks)
- c. Explain the reasons that led to the emergence of schools of thought (madhahib) (6mks)

Q6.

- a. Outline the measures that can be put in place to improve Zakat collection in Kenya (8mks)
- b. Describe categories of legal acts in Islam (6mks)
- c. State the relevance of Islamic criminal law (6mks)

KCSE MOCK 2020

ISLAMIC RELIGIOUS EDUCATION

314/2 Paper 2

1. a) Outline the basic principles of Islamic morality (6 marks)
- b) Suggest ways that can help curb betting among the youth in the society (7 marks)
- c) Give reasons why Muslims advocate for abstinence in the prevention of HIV/AIDS (7 marks)
- Q2. a) Discuss the circumstances under which a woman can seek for divorce (6 marks)
- b) Explain the significance of Wasiyyah (will) (6 marks)
- c) Discuss the causes of increased domestic violence in the society (8 marks)
- Q3. a) Discuss the rationale behind the prophet's polygamous marriage (6 marks)
- b) Give the reasons why the family is considered the foundation of the Islamic society (6 marks)
- c) State the conditions necessary for contracts and agreements to be valid in Islam (8 marks)
- Q4. a) Describe **FIVE** lessons Muslim youth can learn from the battle of khandaq (10 marks)
- b) Discuss the effects of Islamic culture on the Kenyan society (5 marks)
- c) Explain the reasons that led to the downfall of the Fatimid Dynasty (5 marks)
- Q5. a) State the reforms introduced by Khalifa Umar bin Abdulaziz of the Umayyad Dynasty (7marks)
- b) Discuss the challenges faced by Muslims in the spreading of Islam in Kenya (7 marks)
- c) Highlight the reforms introduced by khalifah Umar binul Khatwab in the Muslim army (6marks)
- Q6. a) Outline the objectives of the Muslim brotherhood (Ikhwanul Muslimin) established by Hassan Al Banna in Egypt (6 marks)
- b) Discuss the achievements of Sheikh Abdullahi Swaleh Al Farsy (7 marks)
- c) Explain the various contributions made by Muslim scholars in Science (7 marks)

KCSE MOCK 2020

232/1

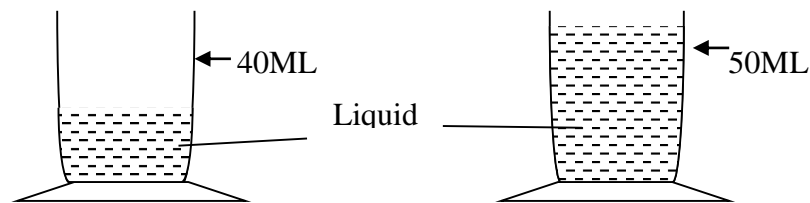
PHYSICS PAPER 1

2HOURS

MARCH/APRIL 2020

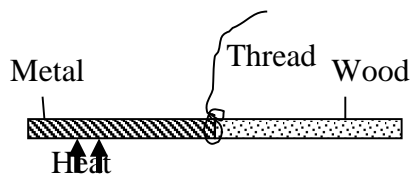
SECTION A: 25 MARKS

1. A stone of mass 40g was completely immersed in a liquid. The level of liquid are shown in the figure



Determine the density of the stone in SI units
(2mks)

2. The following figure shows a rod made of wood on one end and metal on the other end suspended freely with a piece of thread so that it is in equilibrium.



The side made of metal is now heated with a Bunsen flame. State with a reason, the side to which the rod is likely to tilt

(2mks)

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3. Estimate the size of an oil molecule if a drop of oil of volume $6.0 \times 10^{-10} \text{ m}^3$ forms a patch of 32 on a water surface.

(2mks)

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4. Other than oil patch being monolayer, state any one other assumption in the oil drop experiment.
(1mk)

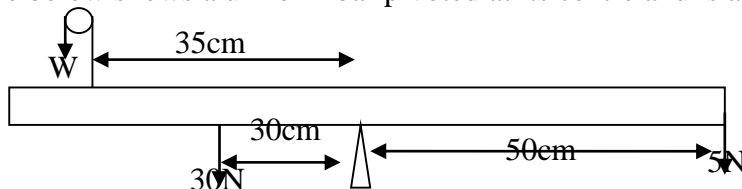
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5. An immersion heater rated at 180W is placed in a liquid of mass 2kg. When the heater is switched on for 7.5 minutes the temperature of the liquid rises by 40°C. Determine the specific heat capacity of the liquid.
(3mks)

6. Other than temperature state one other factor that affects the surface tension of water.
(1mk)

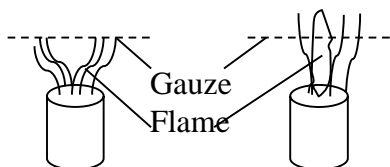
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7. The figure below shows a uniform bar pivoted at its centre and is at equilibrium.



Determine the value of w.
(3mks)

8. When a Bunsen burner is lit below wire gauze, it is noted the flame initially burns below the gauze as shown in (i). After sometime, the flame burns below as well as above the gauze as shown in (ii).

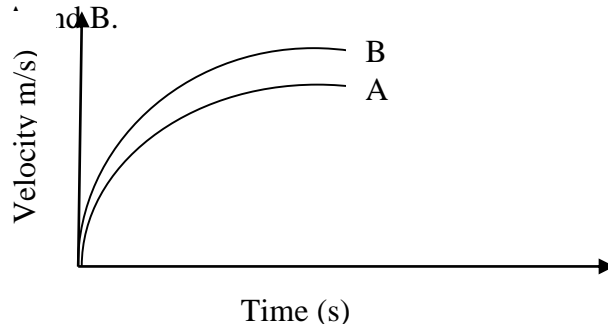


- (ii) Expl i this observation ii
(2mks)

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9. The figure shows the velocity time graph of two identical spheres released from the surfaces of two liquid



Give a reason why the terminal velocity of the sphere in B is higher than in A.
(1mk)

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10. A box of mass 500g is dragged along a level ground at a speed of 12m/s. if the force of friction between the box and the floor is 2000N, calculate the power developed.
(2mks)

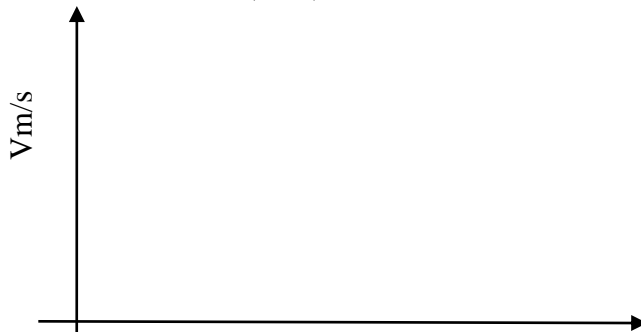
11. State how heat losses by convection and radiation are minimized in a thermos flask.
(2mks)

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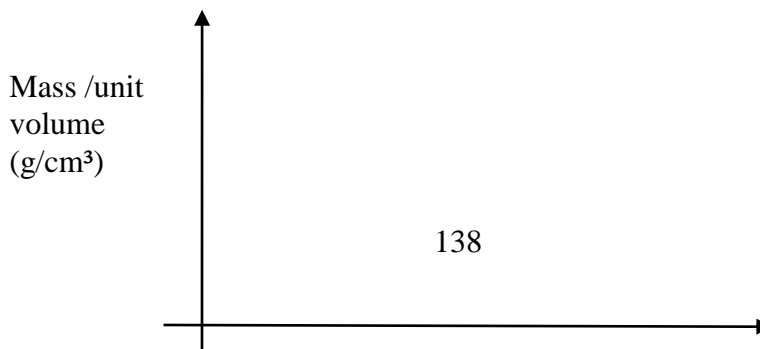
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12. On the axes provided sketch a graph of velocity (v) verses time (t) for uniformly accelerated motion given that $t=0, v$ is greater than zero.
(1mk)



13. Sketch on the axes provided a graph showing how mass per unit volume of water varies with temperature when water is heated from 0° to 20°
(2mks)



14. State how the velocity of a moving fluid varies with pressure.
(1mk)

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SECTION B (55 MARKS)

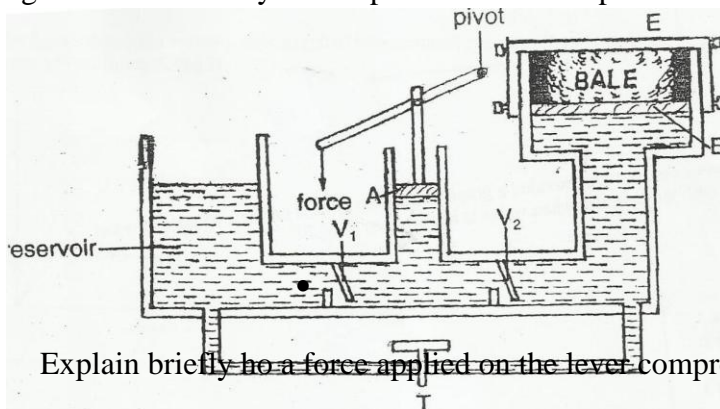
15. (a) When a fountain pen is taken in a high aero plane, it leaks. A ball point pen does not have this problem. Explain how the ball point is able to overcome this problem.
(1mk)

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- (b) The fig below shows a hydraulic press used to compress a bale



- (i) Explain briefly how a force applied on the lever compresses the bale. (4mks)

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- (ii) Given that the area of piston B is 18cm^2 and that of piston A 3.0cm^2 . A force of 2N is applied to piston A, find the force produced on the larger piston B that compresses the bale.

(2mks)

- (c) A 180W heater is immersed in a copper calorimeter of mass 100g containing 200g of alcohol. When the heater is switched on after 36 seconds the temperature of

For Marking Schemes Call 0705525657

calorimeter and its contents rises to 12° . If S.H.C of water and copper is 4200 J/kgK and 400 J/KgK respectively.

Determine:

(i) Heat lost by the heater

(2mks)

(ii) Heat gained by calorimeter and alcohol, if the specific heat capacity of alcohol C_u .

(2mks)

(iii) The value of specific heat capacity of alcohol

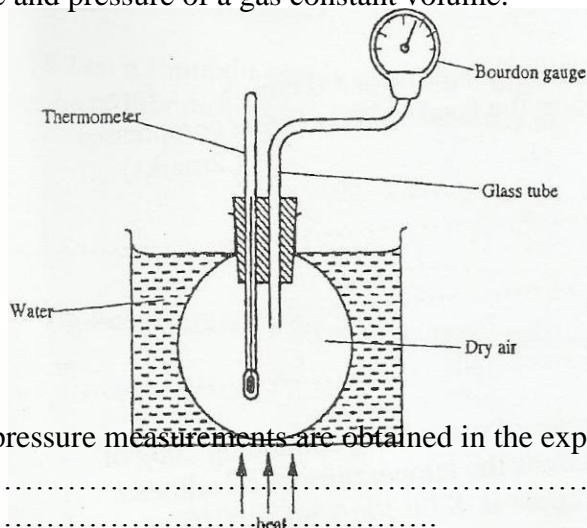
(1mk)

16. (a) State the pressure law for an ideal gas

(1mk)

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(b) The set up shows an arrangement to determine the relationship between temperature and pressure of a gas constant volume.



(i) Describe how pressure measurements are obtained in the experiment. (3mks)

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(ii) Explain how the result from the experiment can be used to determine the relationship between temperature and pressure.

(2mks)

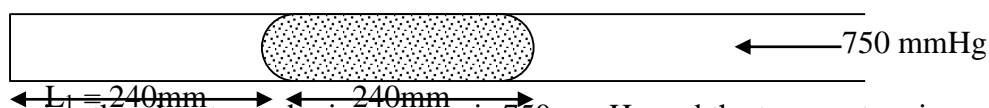
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- (c) A bicycle tire is pumped to a pressure of $2.2 \times 10^5 \text{ pa}$ at 23°C . After a race the pressure is found to be $2.6 \times 10^0 \text{ pa}$. Assuming the volume of the tire did not change, what is the temperature of the air in the tire.

(3mks)

- (d) Air is trapped inside a glass tube by a thread of mercury 240 mm long. When the tube is held horizontally the length of the air column is 240mm.



Assuming that the atmospheric pressure is 750mm Hg and the temperature is constant; calculate the length of the air column when the tube is vertical with open end down. (3mks)

17. (a) Define the term work

(1mk)

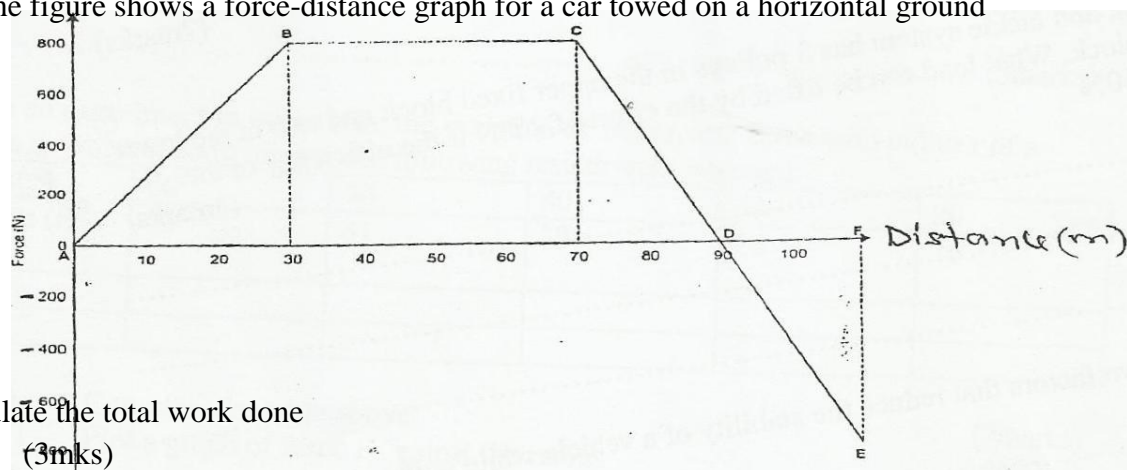
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- (b) The figure shows a force-distance graph for a car towed on a horizontal ground



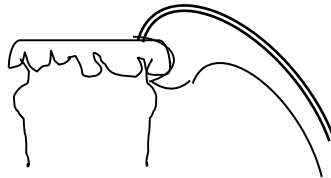
- (i) Calculate the total work done

(3mks)

- (ii) If the velocity just before reaching point C is 0.6m/s, calculate the power developed by the agent providing the force at this point.

(3mks)

(c) The figure below shows a bottle top opener



Indicate on the diagram the direction of the load and effort. (2mks)

(d) A block and tackle system has 3 pulleys in the upper fixed block and two in the lower movable block. What load can be lifted by the effort of 200N if the efficiency of the system is 60%

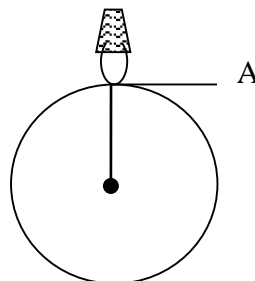
(3mks)

18. (a) State two factors that reduce the stability of a vehicle while going round a banked bend.

(2mks)

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(b) The figure shows a bucket filled with water of mass 5kg tied on a string 2.0 m long being rotated in a vertical circle with a constant speed V m/s.



Calculate the minimum speed the bucket takes to rotate in position A so that the water remains in the bucket. (3mks)

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(c) A car of mass 6000kg is driven round a horizontal curve of radius 250m. if the force of friction between the tyres and the road is 21000N, what is the maximum speed that the car can be driven at on the curve without going off the road.

(3mks)

(c) In an experiment to investigate the variation of centripetal force with radius r of a circle in which a body rotates, the following results were obtained.

Mass(g)	60	50	40	30	20
Radius® cm	50	41	33	24	16
F(N)					
R(m)					

(i) Complete the table above (2mks)

(ii) Plot a graph of force F against the radius (5mks)

(iii) Given that mass of the body is 100g, use the graph to determine the angular velocity.

(3mks)

(e) State one application of circular motion (1mk)

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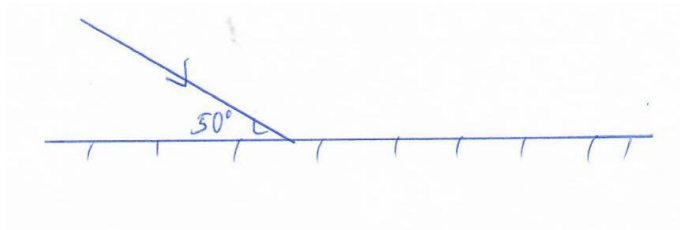
PHYSICS

PAPER 2(THEORY)

TIME: 2 HOURS

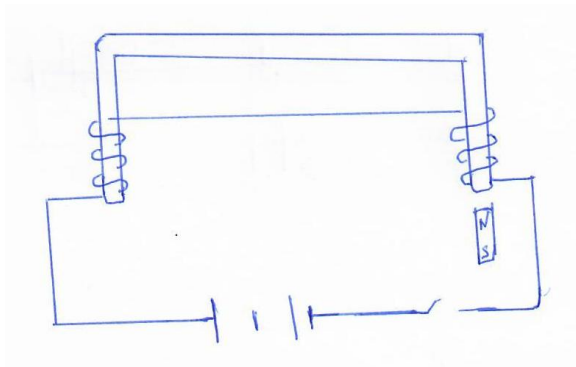
SECTION A (25 MKS)

1. Determine the angle between incident and reflected ray when mirror below is rotated clockwise by 10° . (2 mks)



2. Wavelength of wave was 1.33m in air and 1.0m in a medium, determine refractive index of that medium. (3 mks)

3. Explain what happens to magnet below when circuit is switched on. (2 mks)



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4. Explain why power is transmitted at high voltage. (1 mk)

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5. Complete diagram below for forward biased diode. (1 mk)



6. A mirror of focal length 9cm forms an image of height 3cm at 6cm behind the mirror but diminished.

- (a) Identify mirror used. (1 mk)

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- (b) Determined image position. (3 mks)

7. Arrange radiations below in order of decreasing wavelength Red, U.V, infra-red, yellow light. (1 mk)

8. A sample of 64g disintegrates with half life of 5 days. Determine mass decayed after 25 days. (3 mks)

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9. A bulb was rated 60w, 240v, what does it mean. (1 mk)

10. State any property of x-rays. (1 mk)

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11. Frequency of wave was 50Hz, determine its period. (2 mks)

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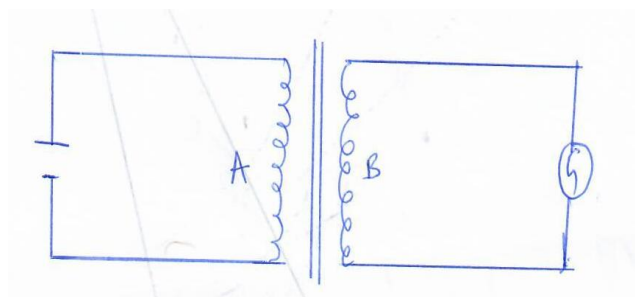
12. State any application of pulse echo technique. (1 mk)

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13. A battery supplies 50Ah for 720 minutes, determine current supplied. (3 mks)

SECTION B (55 MKS)

14. Study figure below to answer following questions.



a) State what happens to Galvanometer when:
(i) Switch is closed. (2 mks)

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(ii) Switch is open (2 mks)

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b) Primary coil of transformer has 2000 turns and secondary has 400 turns. Primary is connected to 240V a.c main supply.

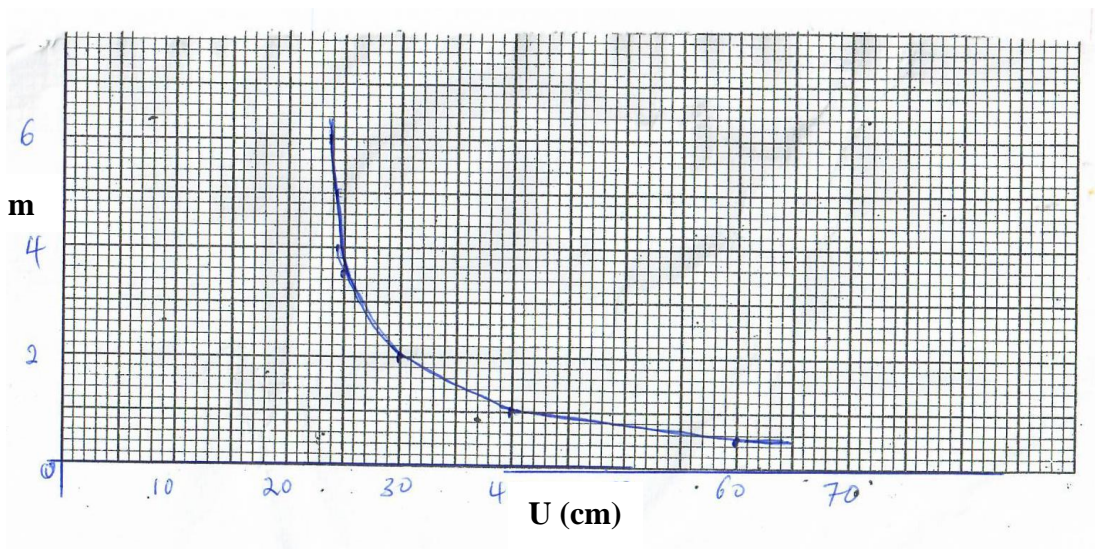
(i) Explain how Emf is induced in secondary coil. (2 mks)

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(ii) Determine secondary voltage. (3 mks)

(iii) Determine efficiency of transformer if current in primary coil is 0.2A and in secondary coil is 0.80 A. (3 mks)

15. Graph below is a magnification against object distance for lens of focal length 20cm.



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- a)
- (i) State effect on image size when object distance is increased from 25cm. (1 mk)
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-
- (ii) Determine distance between object and lens when image is same size as object. (2 mks)
- (iii) Determine image distance when object distance is 25cm. (3 mks)

- b) An object is 30cm in front of converging mirror of focal length 15cm. Sketch ray diagram to locate image formed. (3 mks)

- c) State why parabolic reflectors are used in car head lights. (1 mk)

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16.

- a) Explain why a positively charged electroscope gets discharged when the cap is touched with a finger. (2 mks)

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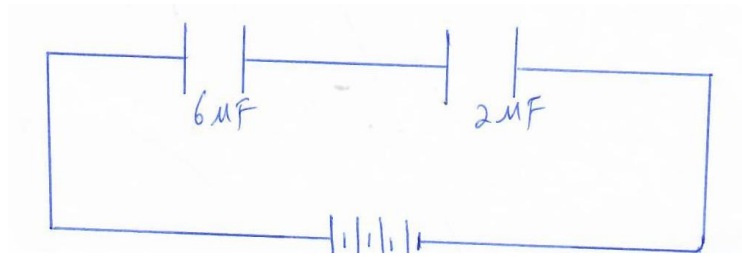
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- b) Use figure below to answer following questions.

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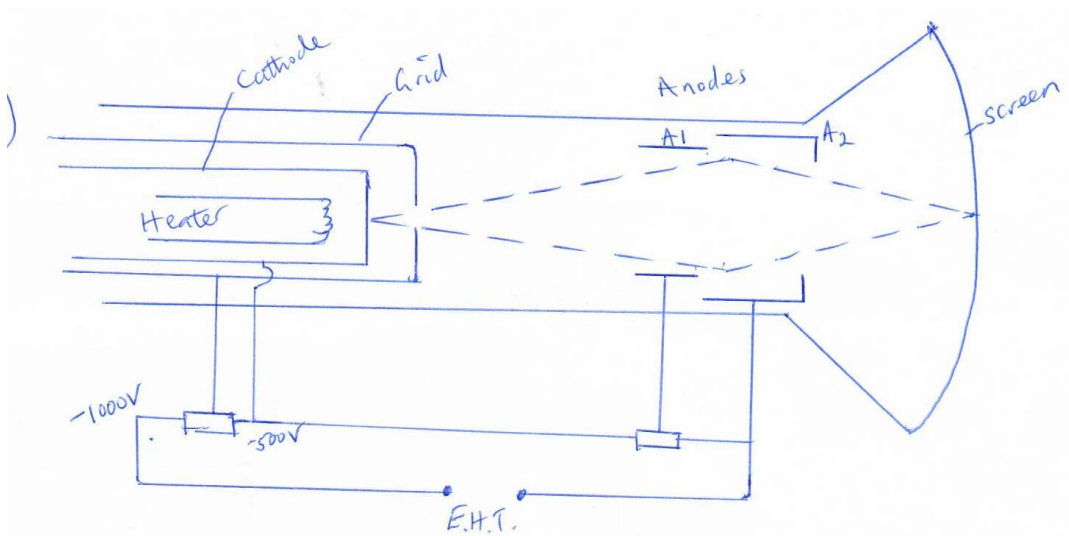
- Determine
- (i) Effective capacitance in circuit. (3 mks)
- (ii) Quantity of charge in 6UF capacitor. (3 mks)
- (iii) Quantity of charge in 2 UF capacitor. (1 mk)
- c) Sketch electric field pattern around isolated point charge below. (1 mk)
17. A charge of 300 coulombs flows across conductor of potential difference 12V in 10 seconds.
- a) Determine
- (i) Electrical energy supplied. (3 mks)

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(ii) Power transmitted. (2 mks)

(iii) Show that $p = IV$ (2 mks)

b) A lighting circuit in a house has 15 lamps each rated 75w, 240v. Determine whether a fuse rated 4A can be used in circuit when all lamps are put on. (4 mks)



18.

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- a)
(i) State how electrons are produced in tube. (1 mk)

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- (ii) State how electron beam is detected. (1 mk)

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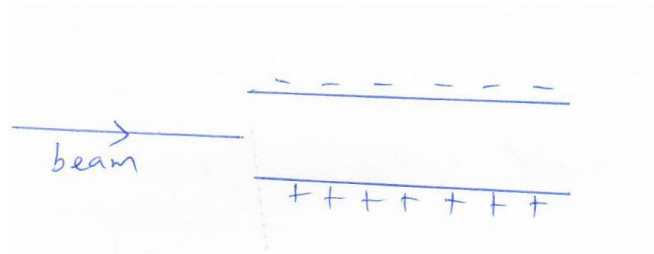
- (iii) State function of variable p.d at
i) Grid (1 mk)

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- ii) Anode (1 mk)

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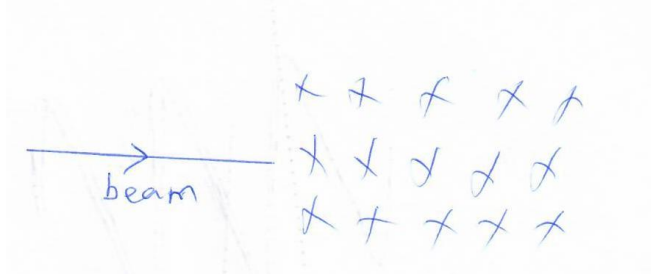
- b) Show how beam is deflected in
(i) Electric field (1 mk)



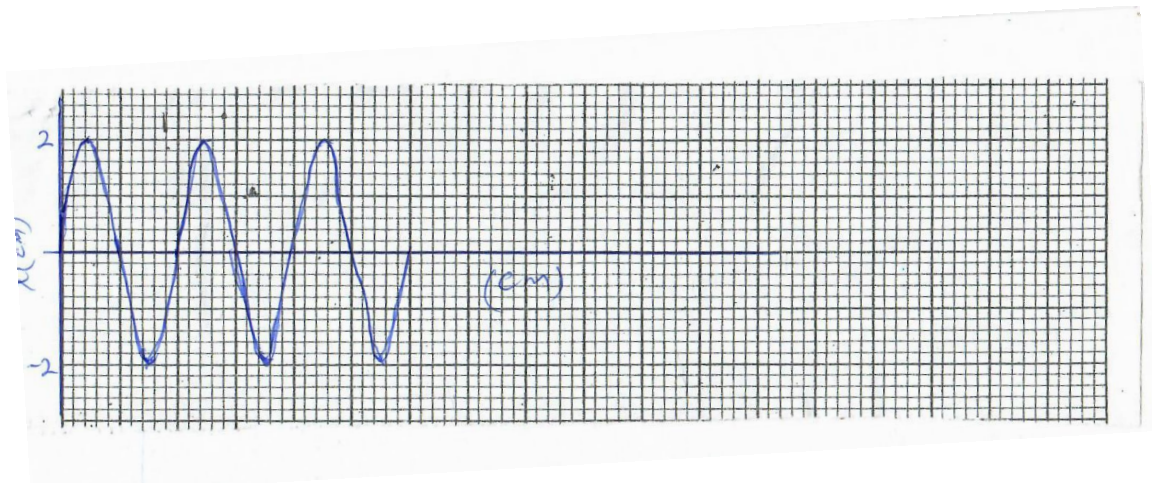
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(ii) Magnetic field.

(1 mk)



c) Waveform below is obtained from signal applied to y-plate of C.R.O whose time base setting is 2 ms/div



Determine

(i) Period of signal

(2 mks)

(ii) Frequency of signal

(3 mks)

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