

FORM 4 SET 3 CHAMPIONS K.C.S.E REVISION 2020 ALL SUBJECTS (14 SUBJECTS)

*****Service Beyond expectation*****

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FORM 4 SET 3 CHAMPIONS HOLIDAY EXAMS 2020 SET 3 (14 SUBJECTS)

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REVISION HISTORY AND GEOGRAPHY**

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MATHEMATICS
PAPER 1
FORM FOUR EXAMS 2020
TIME: 2½ HOURS

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

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

INSTRUCTIONS TO THE CANDIDATES

- Write *your name and index number* in the spaces provided above
- This paper contains two sections; **Section 1** and **Section II**.
- Answer all the questions in **section 1** and only **five** questions from **Section II**
- All workings and answers must be written on the question paper in the spaces provided below each question.
- Marks may be given for correct working **even if** the answer is wrong.
- Non programmable silent electronic calculators and KNEC Mathematical tables may be used **EXCEPT** where stated otherwise.
- Show all the steps in your calculations, giving your answers at each stage in the spaces below each question.

FOR EXAMINERS'S USE ONLY

Section 1

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
Marks																	

Section II

Question	17	18	19	20	21	22	23	24	Total
Marks									

GRAND TOTAL

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This paper consists of 14 printed pages. Candidates should check carefully to ascertain that all the pages are printed as indicated and no questions are missing.

SECTION 1 (50 MARKS)

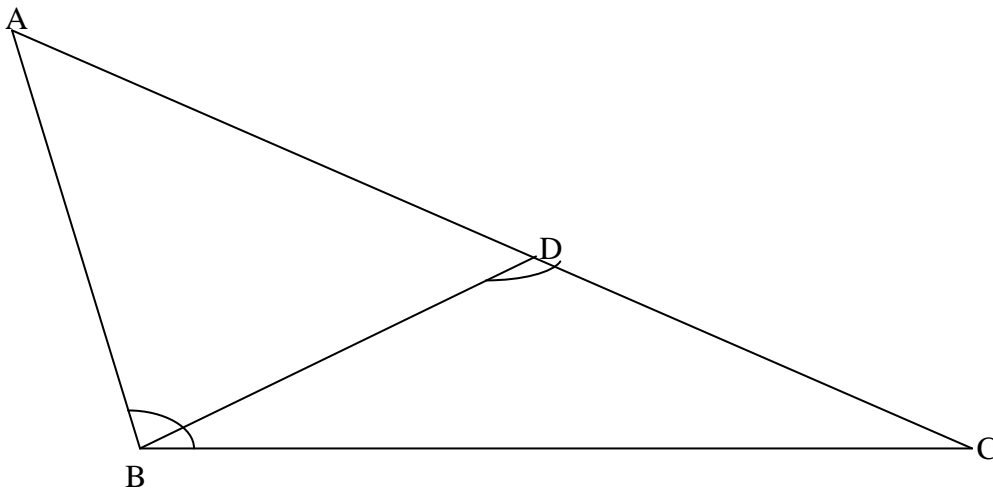
Answer all questions in the spaces provided.

1. Evaluate without using a calculator $\frac{\left(2\frac{3}{7} - 1\frac{5}{6}\right) \div \frac{5}{6}}{\frac{2}{3} \text{ of } 2\frac{1}{4} - 1\frac{1}{7}}$ (3mks)
2. Calculate the standard deviation for the data below (3mks)
5,8,13,12,7,10,8,15,3,14
3. A straight line L_1 is perpendicular to another line L_2 whose equation is $3y+4x=12$. If the two lines meet at point P which lies on the x-axis, find:
(i) The co-ordinate of point P (1mk)
- (ii) The equation of line L_1 in the form $y=mx+c$ (3mks)
4. Mr. Ochuodho who deals in electronics sells a radio to a customer at Kshs. 1,440 after giving him a discount of 10% but finds that he still makes a 20% profit. Find the profit Mr. Ochuodho would make if he does not give a discount. (3mks)

5. A solid block in the shape of a cylinder has a height of 14cm and weighs 22kg. If it is made of material of density 5g/cm^3 , find the radius of the cylinder. Take $\pi = \frac{22}{7}$ (3mks)

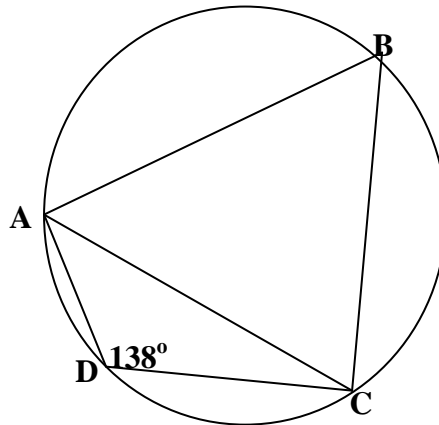
6. Simplify completely by factorization $\frac{20 - 45x^2}{6x^2 - x - 2}$ (3mks)

7. The figure below shows a triangle ABC not drawn to scale, D is a point on line AC. Given that $BC=14\text{cm}$, $DC=7\text{cm}$ and $\angle ABC = \angle BDC$. Find the length of AD (3mks)



8. Solve the simultaneous inequalities given below and list all the integral values of x (3mks)
- $$\frac{3-x}{2} \geq \frac{x+1}{3} \geq \frac{2x+1}{-3}$$

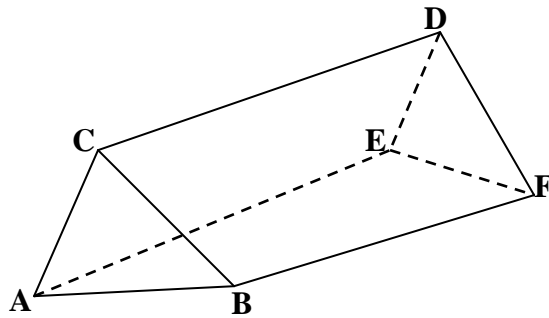
9. In the circle drawn to scale below A,B,C and D are points on its circumference, Chord BC=AC and angle ADC=138°



Giving reasons calculate the angle ACB

(3mks)

10. The figure below shows a triangular prism ABCDEF. AF=CD=BE=18cm, The ends ABC and EDF are equilateral triangles of side 8cm. calculate the angle plane ABD makes with the lie CD (3mks)



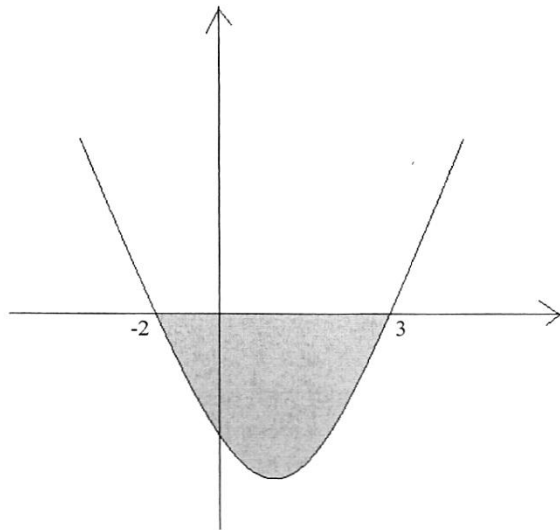
11. Patricia a student at Ongeti mixed Secondary bought 5 pens and 3 exercise books from Solving supermarket at Kshs. 135, at the same time Jane her class mate also bought 4 pens and 5 exercise books and spent Ksh. 25 more than Patricia. Find the cost of each pen and exercise book (4mks)

12. Evaluate using mathematical tables only expressing your answer to 4 significant figures

$$\frac{4}{0.2356} + (0.9873)^3$$

(3mks)

13. The diagram below shows the sketch of the curve $y=x^2-x-6$



Using the mid-ordinate rule with five rectangles, calculate the area of the shaded region (4mks)

14. Given that $\sin (3x-35)^\circ - \cos (x+20)^\circ = 0$ and x is an acute angle, find its value (2 mks)

15. A train of length 80m crosses a bridge 20 m long in 5 seconds. Calculate the average speed of the train in km/h (3mks)

16. Mr. Ombogo the principal of Chiga secondary would wish to cover the floor of the new administration block using the square tiles. The floor is a rectangle of sides 12.8m by 8.4m. Find the area of each of the largest tiles which can be used to fit exactly without breaking (3mks)

SECTION B (50 MARKS)

Answer ONLY FIVE questions in this section in the spaces provided

17. Four schools Wiobiero, Asumbi, Nyawita and Angiro are such that Wiobiero is 15km from Asumbi on a bearing of 158° , Nyawita is to the west of Asumbi and 20km away while An'giro is to the South of Nyawita and on a bearing of 240° from Wiobiero.
- (a) Using a scale of 1:400,000 draw a scale diagram showing the relative positions of the four schools. (5mks)
- (b) Using your diagram determine the distance and bearing of Ang'iro from Asumbi (2mks)
- (c) A mast is to be erected so that its equidistant from Asumbi and Nyawita and 20km from Ang'iro on the same diagram show the position of the mast and find its distance from Wiobiero (3mks)

18. The table shows the marks obtained by 40 candidates in an examination

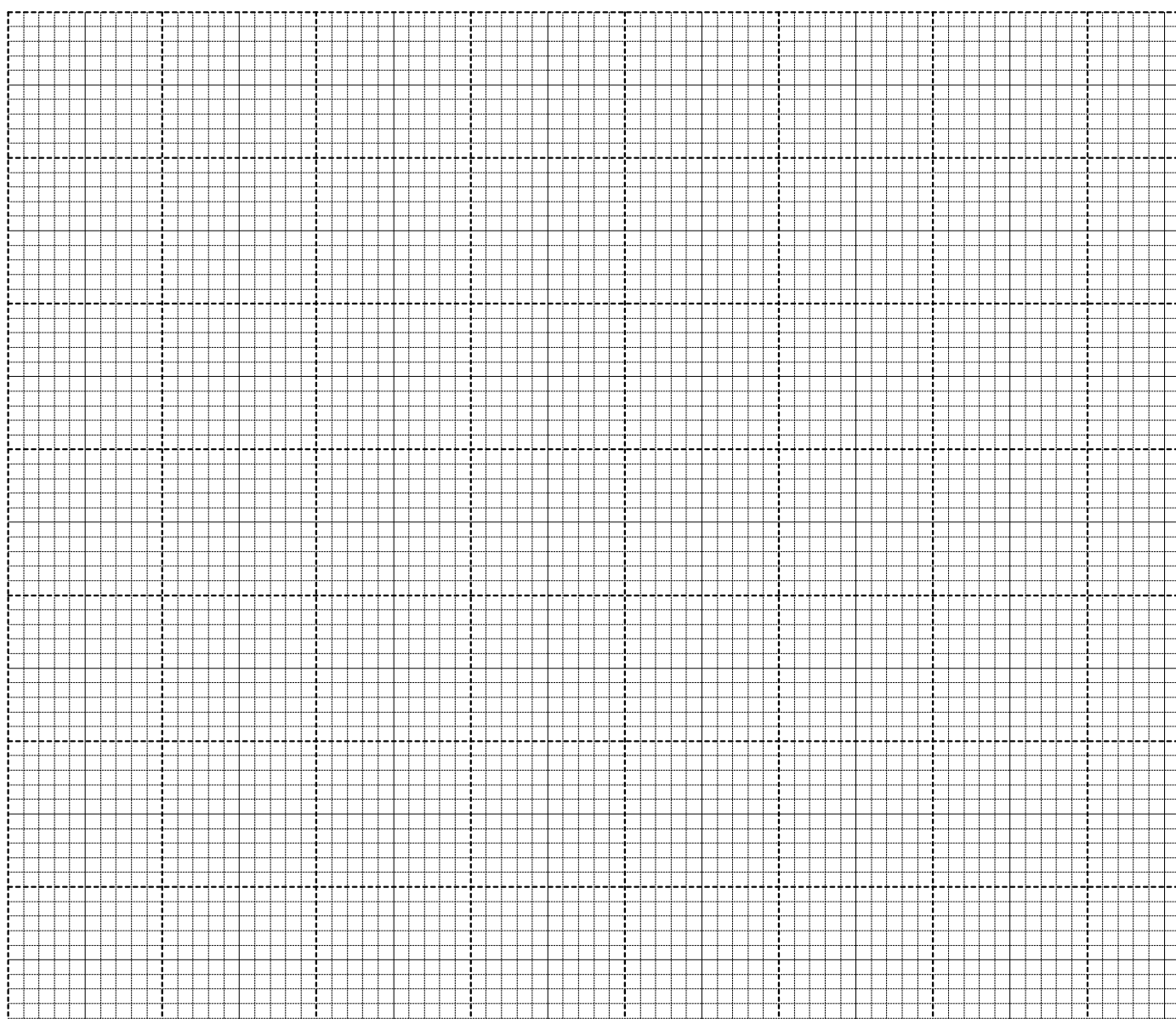
Marks	5-14	15-29	30-34	35-44	45-49
Frequency	2	12	7	15	x

(a) Find the value of x

(2mks)

(b) On the grid provided below draw a histogram to represent the data

(5mks)



(c) By drawing a straight line on the graph above determine the median mark (3mks)

19. A matatu left Oyugis for Homabay town 51km away at an average speed of 48km/h at 7.00am. At 7.30am a Boda boda left Homabay for Oyugis travelling along the same route at an average speed of 60km/h

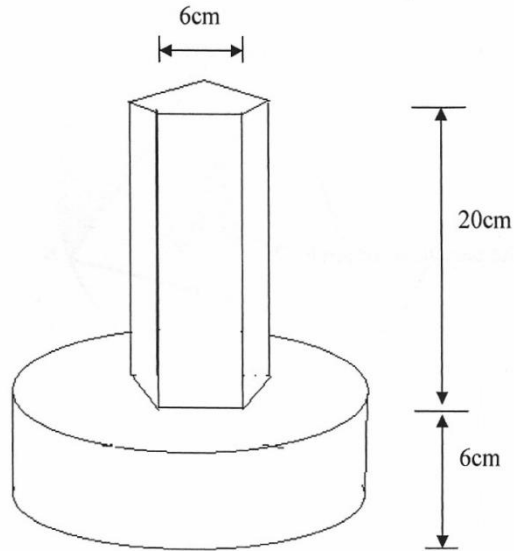
(a) The time when Boda boda meet the matatu (3mks)

(b) How far from Oyugis did the Boda boda meet the matatu (3mks)

(c) After meeting the Boda boda the matatu stopped for fifteen minutes before resuming the journey. At what speed should it travel then to reach Homabay at the same time when the Boda boda reached Oyugis (4mks)

20. A group of people planned to contribute equally towards a water project which needed Ksh.2,000,000 to complete. However 40 members of the group withdrew from the project. As a result each of the remaining members were to contribute Kshs.2,500 more
- (a) Find the original number of members in the group (5mks)
- (b) Forty five percent of the value of the project was funded by constituency development fund(CDF). Calculate the amount of contribution that would be made by each of the remaining members. (3mks)
- (c) Members contribution were in terms of labour provided and money contributed. If the ratio of the value of labour to the money contribution was 6:9. Calculate the total amount of money contributed by the members (2mks)

21. The figure below shows a prism whose cross section is a regular pentagon of side 6cm and whose length is 20cm joined to a cylinder of radius 14cm and height 6cm to form a the model of a solid



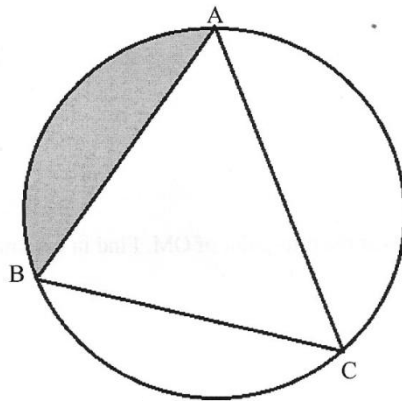
(a) Calculate the cross section area of the pentagon (3mks)

(b) Calculate the total volume of the solid (4mks)

(c) The model represents a pillar of total height 5.2m, calculate the volume of the actual solid in m^3 (3mks)

22. The displacement of a particle S metres, t seconds after passing a fixed point O is given by
 $S=3+2t-5t^2$
Calculate:
- (a) The displacement of the particle 2 seconds later (2mks)
- (b) The time taken for the particle to return to O (2mks)
- (c) The maximum displacement of the particle (3mks)
- (d) The initial velocity of the particle (2mks)
- (e) The acceleration of the particle after t seconds (1mk)

23. The diagram below shows a circle ABC with $AB=12\text{cm}$, $BC=15\text{cm}$, and $AC=14\text{cm}$



Calculate to 4 significance figures:

(a) The angle ACB

(3mks)

(b) The radius of the circle

(3mks)

(c) The area of the shaded region

(4mks)

24. OABC is a trapezium such that the coordinates of O,A,B and C are (0,0),(2,-1) (4,3) and (0,y)
(a) Find the value of y (2mks)

(b) M is the mid-point of AB and N is the mid point of OM. Find in column form
(i) The vector AN (3mks)

(ii) The vector NC (2mks)

(iii) Vector AC (1mk)

(c) Hence show that A, N and C are collinear (2mks)

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 MATHEMATICS
 PAPER 2
 TIME: 2¹/₂ HOURS

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

INSTRUCTIONS TO THE CANDIDATES

- Write **your name** and **index number** in the spaces provided above
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FOR EXAMINERS'S USE ONLY

Section 1

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
Marks																	

Section 11

Question	17	18	19	20	21	22	23	24	Total
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GRAND TOTAL

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Marks									
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This paper consists of 15 printed pages. Candidates should check carefully to ascertain that all the pages are printed as indicated and no questions are missing.

SECTION I (50 MARKS).

Answer All Questions from this section in the spaces provided

1. Evaluate using logarithms (4mks)

$$\sqrt[5]{\frac{41.9x \log 1.159}{2.3 \times 10^3}}$$

2. A business lady bought 180 mangoes at Shs.60 for every five mangoes. She sold some of them at Shs.30 for every three and $33\frac{1}{3}\%$ the rest at Sh.30 for every four. If she made a $33\frac{1}{3}\%$ loss, calculate the number of mangoes sold at Shs.30 for every four (3mks)

3. Write an equation of a circle that has a diameter whose end points are at (2,7) and (-6, 15) in the form $x^2+y^2+ax+by+c=0$ where a,b and c are integers (3mks)

4. Miss Jaber bought a motor cycle at Shs.160,000. The depreciation rate was 6% per annum determined semi annually. How long will it take the motor cycle to be valued at a quarter of its original cost (3mks)

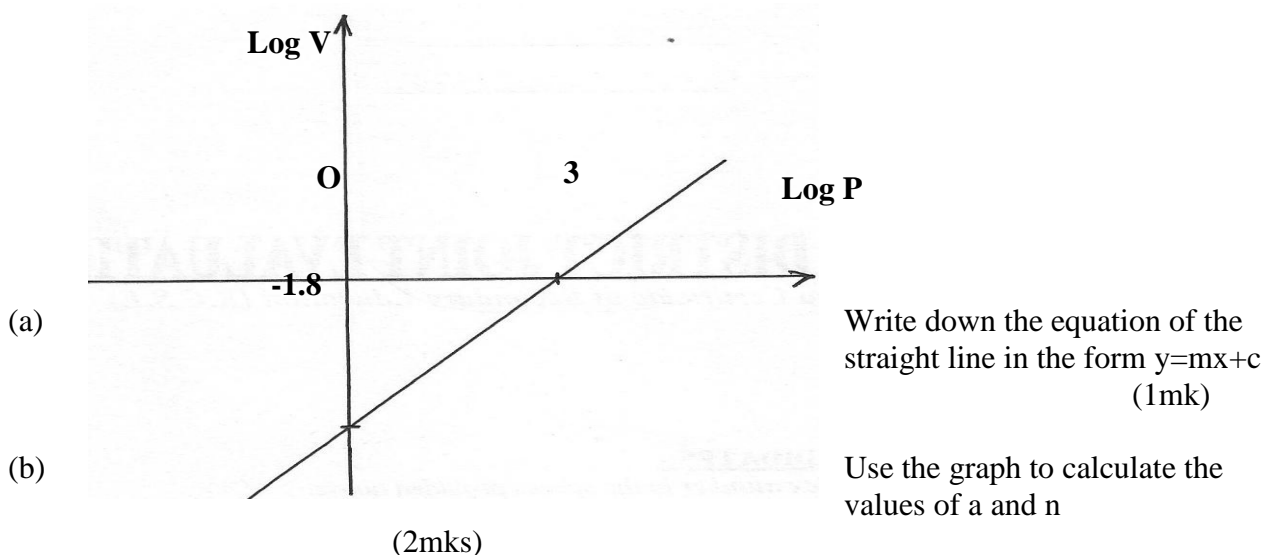
5. Given that $d = \sqrt[3]{\left(\frac{y-1}{y+1}\right)}$ express y in terms of d (3mks)

6. An arithmetic progression of 41 terms in such that the sum of the first five terms is 560 and sum of the last five terms is -250. Find the first term (3mks)

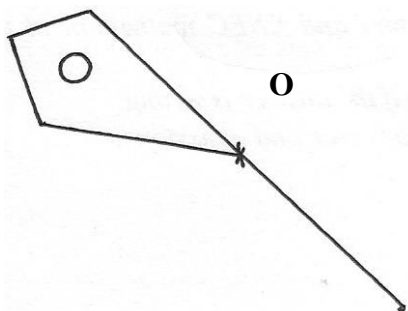
7. (a) Expand and simplify the binomial expression $(2x-y)^5$ (1mk)

(b) Use the first four terms of the expansion above to approximate the value of $(3.8)^5$ (2mks)

8. The graph below is part of the straight line graph obtained from the initial equation $V=ap^n$



9. In the figure below kite ABCD represents a part of a county government logo. The logo has symmetry order 4 about O. Complete the figure to show the logo (2mks)



10. The velocity V of a body moving in a straight line at any time t is given by $V=3t-2$. Its distance S at time $t=0$ is equal to 4m. Calculate the distance when $t=4$ seconds (3mks)

11. The sides of a triangle were measured and recorded as 4cm, 6.2cm and 9.50cm. Calculate the percentage error in its perimeter, correct to 2 decimal places (3mks)
12. The size of an interior angle of a regular polygon is x^2 while its exterior angle is $3x$. Find the number of sides of the polygon (4mks)
13. Without using logarithms table, solve the equation (3mks)
$$\log(5x - 4) = \log(x - 2) + \frac{1}{3}\log 27$$
14. A rectangle ABCD is such that AB=6cm, and BC=5cm. A variable point P moves inside the rectangle such that $AP \leq PB$ and $AP > 2.5$ cm. Show the region where P lies (3mks)
15. Without using a calculator or mathematical table, express $\frac{\sin 60^\circ}{1 - \cos 30^\circ}$ (3mks)
In surd form and simplify
16. An angles of 0.9 radians at the centre of the circle subtends an arc of length 28.8cm. Find
(a) The radius of the circle (2mks)

(b) The area of the sector enclosed by the arc and radii (2mks)

SECTION B (50 MARKS)

Answer any five questions from the section in the spaces provided .

17. Mr. Alvin George, a civil servant gets a monthly salary of Shs. 48,000. He lives in a government house where he pays nominal rent of Shs.2500. Besides this he gets an automatic house allowance of Shs.12000 and medical allowance of shs.8000 per month. He gets a family relief of sh.1065 per month. The rates of income tax are shown below

Income tax in K£ per month	rates in shs. Per K£
1-400	10%
401-1200	15%
1201-2400	25%
2401-3600	35%
3601 and above	45%

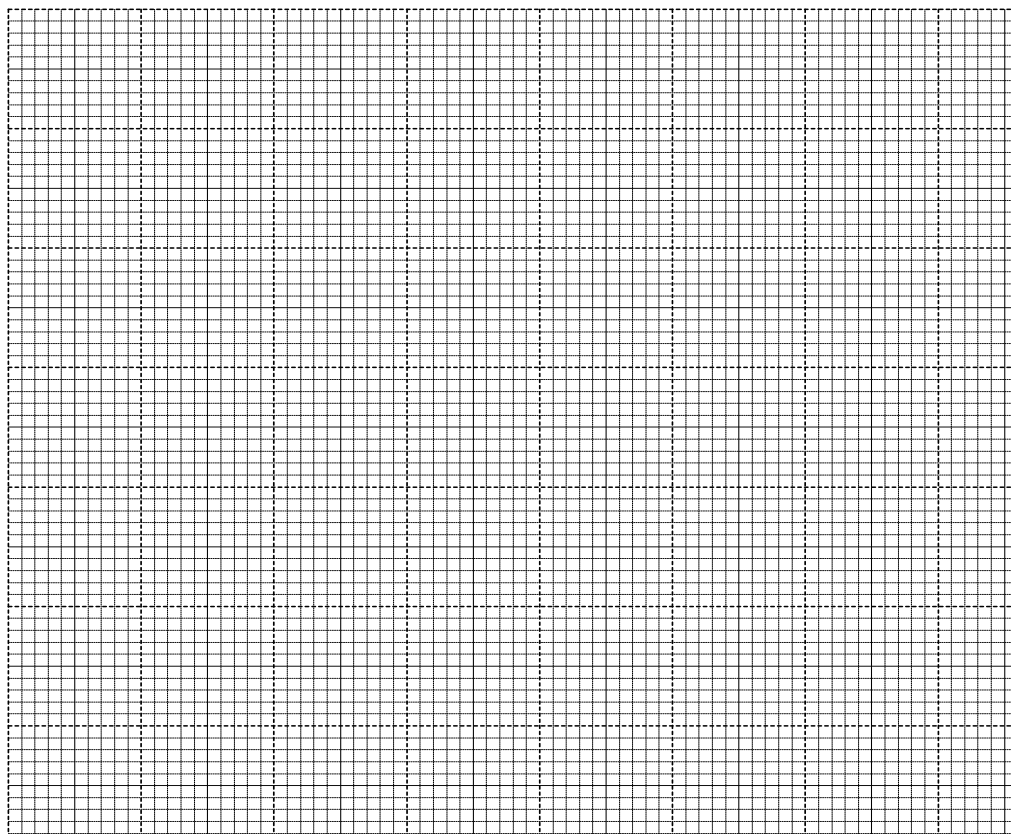
Calculate:

(a) His taxable income per month in Kenya pounds (2mks)

(b) Net tax per month in Kshs. (6mks)

(c) Net salary (2mks)

18. The vertices of a rectangle are A(-1,-1) B(-4,-1) C(-4,-3) and D(-1,-3)
 (a) On the grid provided, draw the rectangle and its image $A_1B_1C_1D_1$ under a transformation whose matrix is $\begin{pmatrix} -2 & 0 \\ 0 & -2 \end{pmatrix}$ (4mks)



(b)
 A_2, B_2, C_2, D_2 is
 the image of
 A_1, B_1, C_1, D_1
 under

a transformation matrix $P = \begin{pmatrix} \frac{1}{2} & 1 \\ 1 & \frac{1}{2} \end{pmatrix}$

- (i) Determine the co-ordinates of $A_2B_2C_2D_2$ (2mks)
- (ii) On the same grid draw the quadrilateral $A_2B_2C_2D_2$ (1mk)
- (c) Find the area of $A_2B_2C_2D_2$ (3mks)

19. A solution whose volume is 120 litres is made up of 35% water and the rest alcohol. When y litres of alcohol is added the percentage of water drops to 15%
- (a) Find the value of y (4mks)
- (b) The new solution is diluted further by addition of seventy litres of water. Calculate the percentage of alcohol in the resulting solution (2mks)
- (c) A blend is made by mixing 10 litres of the solution in (b) above with 20 liters of the original solution. Calculate in the simplest form, the ratio of water to that of alcohol in the blend (4mks)
20. A passenger plane takes off from airport A($60^{\circ}\text{N}, 5^{\circ}\text{E}$) and flies directly to another airport B($60^{\circ}\text{N}, 17^{\circ}\text{E}$) and then flies due North for 600 nautical miles (nm) another airport C
- (a) Find the position of airport C (3mks)
- (b) Find the distance between airport A and B in nautical miles (3mks)
- (c) If the plane at an average speed of 300knots, find total flight time (2mks)
- (d) Given that the plane left air port A at 9.20am. Find the local time of arrival at airport C (2mks)

21. In a certain country, the probability of a school A topping in county exams is $\frac{1}{3}$. If it tops the probability of it topping in KCSE is $\frac{5}{7}$ otherwise the probability of it topping in KCSE is $\frac{2}{9}$. If the school tops in KCSE the probability of its appearing in the newspaper is $\frac{2}{5}$, otherwise the probability of its appearing in newspaper is $\frac{4}{11}$

(a) Draw a tree diagram to represent the above information (2mks)

(b) Use the tree diagram to find the probability that:

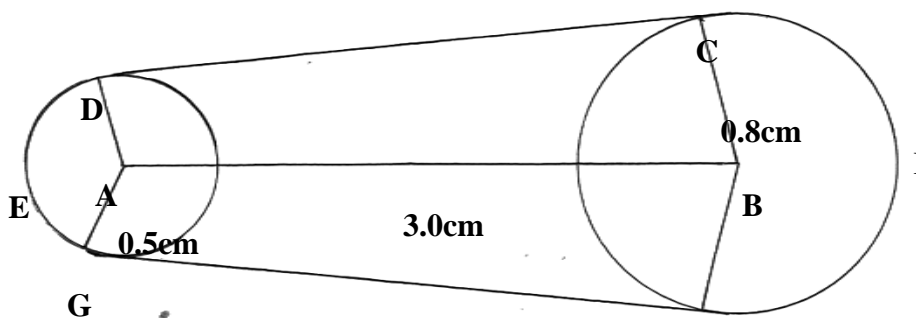
(i) The school tops in the two exams and appears in the newspaper (2mks)

(ii) The school did not appear in the newspaper (2mks)

(iii) The school topped in atleast one exam and did not appear in the newspaper (2mks)

(iv) The school appeared in the newspaper (2mks)

22. The diagram below shows a design model of a race course drawn to scale of 1:5000,000. It consists of two circles centre A and B radii 0.5cm and 0.8cm respectively and the distance between their centres is 3.0cm



Calculate in km:

(i) The length of leg CD (2mks)

(ii) The length of the leg DEG ($\pi=3.142$) (2mks)

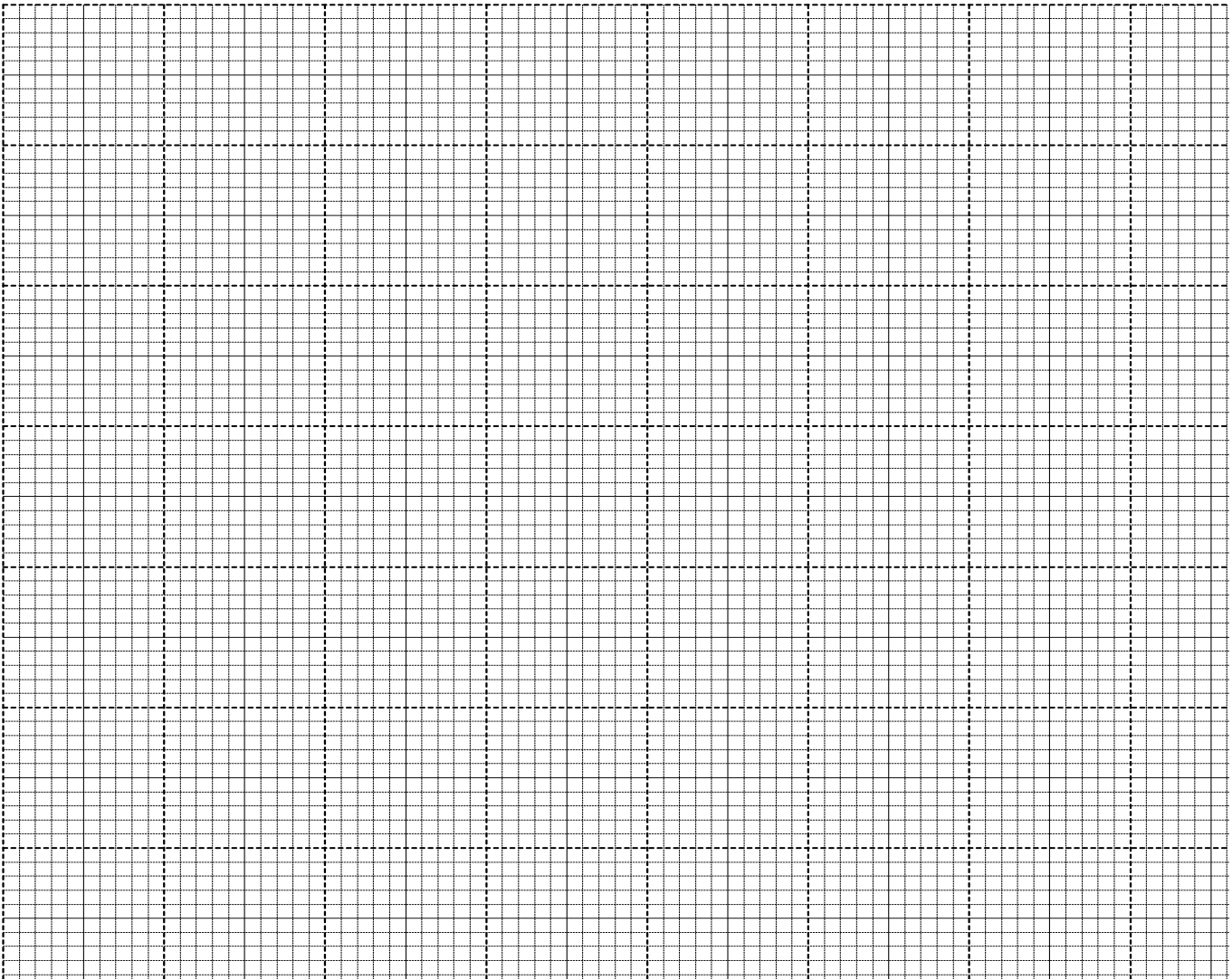
(iii) The length of the leg HIC ($\pi=3.142$) (2mks)

(iv) During a race, the course is manned by race officials placed 500m apart and each is paid Kshs.2300/= per day. How much is needed to pay race officials for one day event (4mks)

23. A relief organization has to transport atleast 80 people and atleast 18 tonnes of supplies to a site. There are two types of vehicles available type A and B. type A can carry 900kg of supplies and 6 people while type B can carry 1350kg of supplies and 5 people. There are at most 12 vehicles of each type available. By putting X to represent the number of vehicles of type A and y to represent the number of vehicles of type B

(a) Write down all the four inequalities to represent the above information (4mks)

(b) On the grid provided, draw all the inequalities in (a) above (4mks)

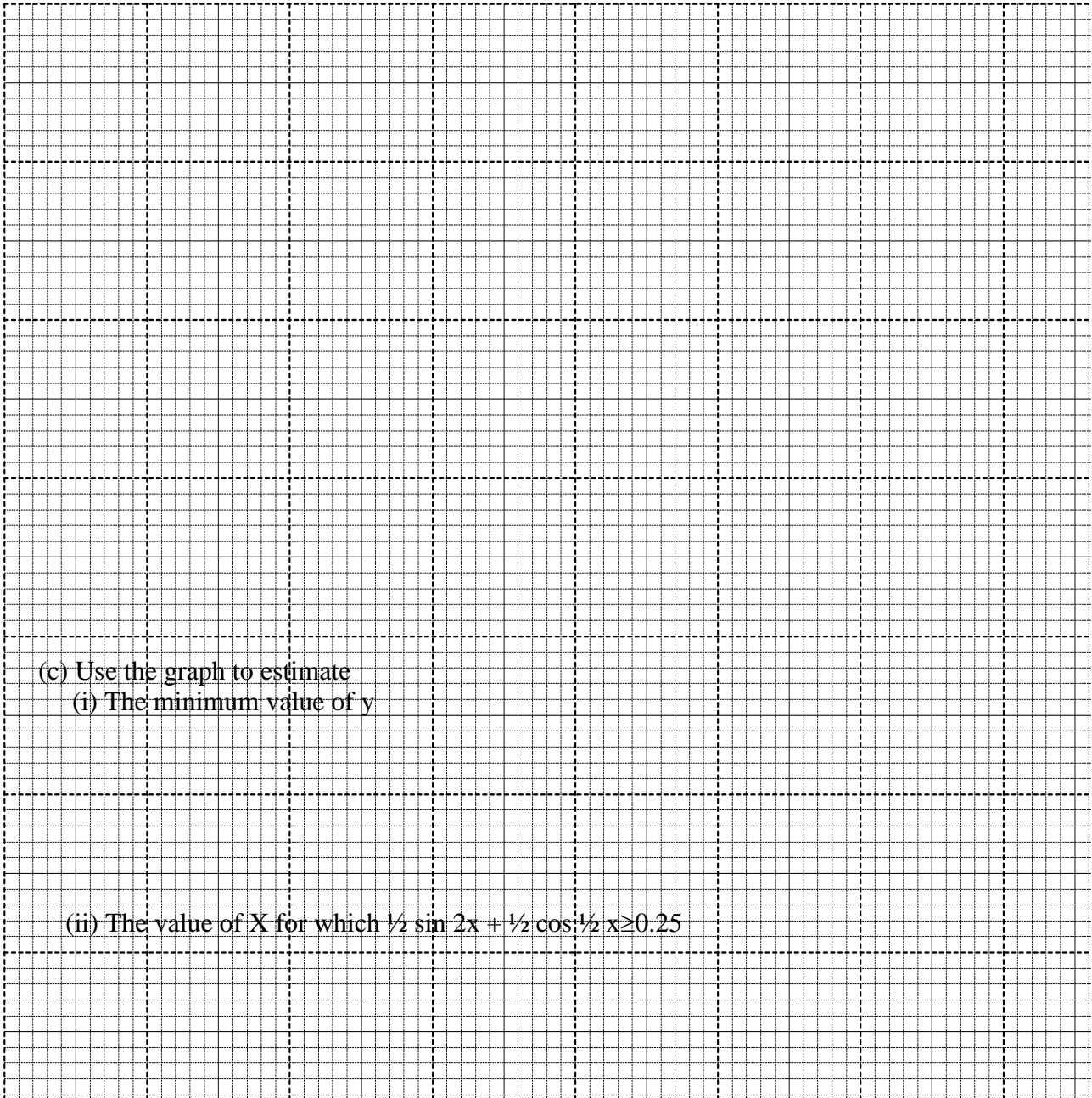


(c) Use the graph in (b) above to determine the least number of vehicles required at the site (2mks)

24. Given that $y = 2x^\circ + \cos \frac{1}{2} x^\circ$, complete the table below for the missing values of y , correct to 1 decimal place

X°	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°	330°	360°
$Y = \sin 2x + \cos \frac{1}{2} x$	1	1.8			-0.4	-0.6			0.4	-0.7			-1

(b) On the grid provide below, draw the graph of $y = \sin 2x^\circ + \cos \frac{1}{2} x^\circ$ for $0 \leq x \leq 360^\circ$. Take the scale 1cm for 30° on the x-axis. 2 cm for 0.5 units on the y-axis. (4mks)



101/ 1

ENGLISH PAPER (FUNCTIONAL SKILLS)

Time: 2 hours

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

INSTRUCTIONS

1. Answer all questions in this paper.
1. All your answers must be written in the spaces provided.
2. *This paper consists of 8 printed pages.*
3. *Candidates should check the question paper to ensure that all pages are printed as indicated and no questions are missing*

FOR EXAMINER'S USE ONLY.

Question	Maximum	Score
1	20	
2	10	
3	30	
TOTAL	60	

QUESTION 1

1. FUNCTIONAL WRITING

(20 marks)

You are the Dean of Studies in your school. The Principal reminds you about the bench-marking visit to Masomo Bora National School by some students and teachers. The Principal writes you a reminder. The bench-marking is expected to take three days.

(a) Write the reminder that the Principal might have written to you.

(12 marks)

(b) Prepare a diary for the three days.

(8 marks)

2. CLOZE TEST

Read the passage below and fill in each blank space with the most appropriate word.

High self-esteem is like having money, something we think everyone else but (1)..... Yet having low self-esteem is perhaps the most common flaw of (2)..... humanity. The majority of people in society think, "The only way to have high self-esteem is to be (3)..... with it." This is not true. You can develop high self-esteem (4)..... like learning to read or to dance. Secondly, people do not (5)..... the importance of having high self-esteem. I cannot even (6)..... to stress the importance of having high self-esteem, it is the (7)..... to having mental, physical and spiritual strength. The (8)..... stage of developing strength is learning to love yourself and your life. You (9)..... to learn to be grateful of what God has given you. You should let go of all those angry (10)..... inside. Holding anger inside yourself will not help you. It will only hurt you. The past is the past, you can only change the present.

3. ORAL SKILLS

(30mks)

a) Read the story below and answer the questions that follow.

Thunder and Lightning (Nigeria)

A long time ago, both Thunder and Lightning lived on this earth, among the people. Thunder was a mother sheep and Lightning was her son, a ram. Neither animal was very popular with the people, for when somebody offended Lightning, he would fly into a furious rage and begin burning whatever he came across. This often included huts and corn bins, and even large trees. Sometimes he damaged crops on the farms with his fire and occasionally he killed people who got in his way. As soon as Thunder knew he was behaving this way, she would raise her voice and shout at him as she could, and that was very loud in deed. Naturally, the neighbours were very upset, first at the damage caused by Lightning and then by the unbearable noise from his mother that always followed his outbursts. The villagers complained to the King on many occasions, until at last he sent the two of them to live at the very edge of the village, and said that they must not come and mix with the people any more.

However, this did no good, since Lightning could still see people as they walked about the village streets and so found it only too easy to continue picking quarrels with them. At last the King sent for them again. “I have given you many chances to live a better life,” he said, but I can see that it is useless. From now on, you must go away from our village and live in the wild bush. We do not want to see your faces here again.”

Thunder and Lightning had to obey the King and agree to abide by his ruling; so they left the village, angry at its inhabitants. But still there was plenty of trouble in store for the villagers, since Lightning was so angry at being banished that he now set fire to the whole bush and since it was the dry season, this was extremely unfortunate. The flames spread to the little farms of the people and sometimes to their houses as well, so that they were in despair again.

They often heard the mother ram’s mighty voice calling her son to order but since it was always after the dark, it made very little difference in his actions. The king called all his counselors together and asked them to advise him, and after much debate, they hit a plan. Why not banish Thunder and Lightning completely away from the earth, where the people hoped they would not be able to do any more damage. Things did not work out quite as well as they had hoped, however for Lightning still loses his temper from time to time and cannot resist sending fire down to the earth when he is angry. Then you can hear his mother rebuking him in her loud trembling voice.

Questions

i) As a narrator, what would you do to capture the audience’s attention before telling this story? (3mks)

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ii) Mention **two** ways in which you would know that your audience is attentive while narrating this story. (2mks)

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iii) Explain how you would perform the following sentence in a live performance of the story. (4mks)

“.....From now on, you must go away from our village and live in the wild bush, we do not want to see your faces here again.”

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b).For each of the following letters, provide a word in which the letter is silent. (5mks)

i) N.....

ii) G.....

iii) H.....

iv) O.....

v) W.....

c) You are the secretary of a company and someone calls requesting to speak to the manager, the manager is not in the office. What would you remember to say and do on behalf of the manager? (5mks)

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.....

d) Recently you were invited to attend a job interview. After the interview, you were informed that you were not successful. Give any five reasons that could have led to your failure. (6mks)

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e) State any **five** rules to be observed when observing personal space. (5mks)

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101/ 2 ENGLISH PAPER 2 (COMPREHENSION, LITERARY APPRECIATION AND GRAMMAR)

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

INSTRUCTIONS TO CANDIDATES

- Write your name and Index number in the spaces provided above. Sign and write the date of examination in the spaces provided above.
- Answer ALL the questions in this question paper
- ALL your answers must be written in the spaces provided in this question paper.

EXAMINERS USE.

Question	Maximum Score	Candidates Score
1	20	
2	25	
3	20	
4	15	
TOTAL	80	

*This paper consists of 6 printed pages.
Candidates should check the question paper to ensure that all pages are printed as indicated
and no questions are missing*

COMPREHENSION

(20 marks)

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

Gender is probably the most important social issue in the world today. It affects and influences every aspect of our lives: politics, economics, religion and leisure. People in the 21st Century strongly believed that every project must get the gender dimension right in order to succeed. But what is gender?

Basically, gender is the expectation that people should do or not do certain things according to their sex. Every normal human being is either female or male. This is sex and it is a biological fact. Indeed, sex is the most conspicuous difference between human beings. The moment we look at a person, we can tell whether that person is a man or a woman, a boy or a girl. The question is if society should use this biological difference to tell people what they should or should not do.

Yet, since time immemorial, this is what human communities all over the world have done. Some African societies bring up their boys to believe that men must be fighters, take whatever they want – by force if necessary and never cry. If anyone asks why they should or should not do this and that, the ready answer is always: you are a man, and that’s what men are supposed to do. Girls are told to be gentle and quiet, to obey men, not to climb trees and not to eat certain kinds of food. A girl who asks why she should not climb trees or speak loudly in public is told, you are a woman, and women don’t do that. In other words, society is always telling us what we can do and what we cannot do just because we are men or women.

In most cases, there is no physical or logical reason for a man or a woman to do or not do certain things. Any girl can climb a tree as smartly as any boy. If a boy wants to go into the kitchen and cook, there is no reason why he should not do so. Indeed, some of the best cooks in the world, called ‘chefs’ are men. Yet in some societies, it is a taboo for a man or boy to enter the kitchen. Similarly, some societies do not allow their women to build houses, even work at building sites, whereas in other societies it is indeed the woman’s role to build houses. Gender is thus society’s assigning of roles to people according to their being male or female.

On the face of it, there is nothing wrong with sharing roles – indeed, there are many cases where it is logical to expect that certain people should do or avoid some activities. For example, it would not be safe for a woman in advance stages of pregnancy to go hunting wild animals or grazing livestock many miles away from home. However, this should not be taken as a blanket excuse to declare that all women must not hunt wild animals. The problem is even worse when some people use gender roles to exploit or oppress other people. Men for example, have for a long time invoked gender roles to force women to do certain things and to prevent them from doing things the women may want to do.

This oppressive practice may be called gender imposition, and it may be seen in all aspects of society.

In social relations, boys and girls are segregated from the earliest years of life. Members of each sex are strictly drilled into what ‘feminine’ or ‘masculine’ in behaviour, speech, dress and every activity. Boys and girls are told what work they should or should not do, what places they can or cannot go to. What games to play and even what foods to eat or not to eat; just because they are boys or girls. By the time a person is in his or her teens, he or she has learnt – from both example and direct teaching by older members of society – what exactly is expected of him or her as a man or a woman. These gendered roles often suggest that men should lead and command in everything, be ‘tough’ – meaning hard and even cruel – and ‘strong’, which often means aggressive and violent. The women on the other hand, are required to be soft and kind, submissive and unquestioningly obedient to men. Even in public affairs, such as politics or religion, the gendering of roles leads to some curious situations.

In some places of worship for example, men and women are strictly separated. Several denominations do not permit women to preach in public or to be ordained as priests or pastors. Politics is widely regarded as a man's field. Some societies insist that a woman cannot be a leader, like President or Army commander. The nagging question, which many women and enlightened men are asking today is: Why not?

This is the challenge to the conventional gendering of roles. Is there any logical reason why a man should not change the nappies of his child, or go into the kitchen and cook? Why can a talented woman not become a top soccer or rugby player, or a bishop or a top business executive? Is it fair to prevent people from eating such nutritious foods as chicken and eggs simply because they are women? Should children be denied the right to inherit their parents' property on the grounds of sex? Is it not pathetic seeing men inflict beastly violence on their wives and children, or one another simply because men are expected to be 'tough' and 'strong'?

To avoid such absurdities, advocates of gender equity demand that sex should not be the main consideration in dealing with people. Assigning roles to people on the grounds of biological differences is a form of evil discrimination, like racism. A more sensible way of dealing with men and women is to take them strictly on the basis of their individual abilities. A human being is a human being, whether man or woman and each should be given every opportunity to realize his or her full human potential. An enlightened approach to gender equity is suggested by the old English saying "What's good for the goose is good for the gander".

Questions

Q1. (a) According to the passage, what is the difference between gender and sex?(2 marks)

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(b) What is gender imposition? (1 mark)

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(c) How are gender roles passed on? (1 mark)

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(d) Add a question tag to the following:

Any girl can climb a tree as smartly as any boy.....(1 mark)

(e) Identify a phrase in the passage that shows that it is not only women who are concerned with the problems created by gendering of roles. (1 mark)

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(f) In not more than 60 words write a summary on what women are not allowed to do simply because they are women. (6 marks)

Rough copy

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Fair copy

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(g) In not more than three sentences, paraphrase the author's argument. (3 marks)

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(h) Change the following question into a statement: (1 mark)

Should children be denied the right to inherit their parents' property on the grounds of sex?

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(i) What is the meaning of the following: “What is good for the goose is good for the gander.”
(1 mark)

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(j) Explain the meaning of the following as they are used in the passage. (3 marks)
(i) Segregated

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(ii) Absurdities

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(iii) Blanket excuse

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2. Read the excerpt below and answer the questions that follow.

Nora: Oh, yes, that one; but this is another. I ordered it. Torvald mustn't know about it.
Rank: Oho! Then that was the great secret.
Nora: Of course. Just go in to him; he is sitting in the inner room. Keep him as long as-
Rank: **Make your mind easy; I won't let him escape.** (*Goes into the HELMER'S room*)
Nora: (*to the MAID*) And he is standing waiting in the kitchen?
Maid: Yes; he came up the back stairs.
Nora: But didn't you tell him no one was in?
Maid: Yes, but **it was no good.**
Nora: He won't go away?
Maid: No; he says he won't until he has seen you, ma'am.
Nora: Well, let him come in-but quietly. Helen, you mustn't say anything about it to anyone. It is a surprise to my husband.
Maid: Yes, ma'am, I quite understand. (*Exit.*)
Nora: This **dreadful** thing is going to happen! It will happen in spite of me! No, no, no, it can't happen-it shan't happen!

Questions.

a) Place this excerpt in its immediate context. (4marks)

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b) What does “it” refer to and what does it reveal about the character of Nora? (3 marks)

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c) Identify and explain one type of irony in this excerpt. (2 marks)

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d) Who is being referred to as he and why has he come? (3 marks)

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e) Torvald mustn't know about it. Add a question tag (1 mark)

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f) Describe one theme raised in this extract. (2 marks)

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g) What dreadful thing does Nora fear might happen? Explain your answer. (4 marks)

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h) Describe the character of the maid (2 marks)

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i) Explain the meaning of the following expressions as used in the excerpt. (4 marks)

i. Make your mind easy

ii) I won't let him escape.

iii) It was no good

iv) Dreadful

3. Read the poem below and answer the questions that follow.

I refused to take your brotherly hand

Your nails are black with dirt, brother
And your palms are clammy with sweat
I refuse to take the hand you extend in help
I shall not join hands with you brother
For unclean hands make me uneasy
For filthy fingernails rob me of my pride.

You argue, gesticulating with your once
Impeccably clean and beautiful hands
That before long it shall not matter
For 'everybody' is delving and digging
And all shall have hands dripping with dirt.

That nobody shall know clean hands look like
And there shall be comfort in the dirty crowd
And enough to eat, for there are good yields
When the stinking manure is well dug in
With strong and bold hands in time

Are you going blind brother?
I ask how many have the sludge
Or the strong and bold hands like yours
With which to dig and delve?
Brother the hands of many are too weak with hunger
And for many the sludge is out of reach
And yet for others the stink is too nauseating!
But all have eyes and hunger fills them with anger
As they watch your fingernails fill with dirt!

I have seen hungry envious eyes
Watching silently through your chain-link fence
I have seen eyes in deep sunken sockets
Burning with anger intently watching you
I have seen parched mouths water with saliva
And heard the rumbling of hollow empty stomachs
As they watched you feed the dog with meat
From the heavy yields of city sludge

Have you entirely forgotten Brother
The fragrance and comfort of clean hands?
The confidence, the peace you have when you know
You'll leave no ugly smudge upon sheet?
Don't you remember the repulsion you had
When you shook hands with fat dirty men
With their dirty clammy palms?

Let me trudge brother and from the top from the top
of the cliff
Don't offer me your dirty hand in help.
Let me trudge the long way up
Let me trudge the long way up
For the short cuts are clammy with the sweat of fear
And your fingernails are clogged with dirt.

Adapted f

Questions

- a) Briefly explain the message in the above poem. (3mks)

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- b) Identify the **two** types of hands referred to in the poem and explain what they represent. (2mks)

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- c) What reasons does the poet give in stanza one for referring to take the "Brotherly hand?" Give your answer in note form. (3mks)

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d) Why does the persona wonder whether the brother has gone ‘blind’? (2mks)

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e) The ‘brother’ seems to have changed from a previous lifestyle. Write out **two** lines to prove this. (2mks)

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f) Identify and explain any **two** poetic devices used in the poem. (4mks)

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g) What is the persona’s attitude towards the brother? (2mks)

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h) Explain the following as used in the poem. (2mks)

(i) Fingernails are clogged with dirt

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(ii) Parched mouths

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GRAMMAR (15mks)

4. A) *Rewrite the following sentences according to instructions given after each* (3mks)

i. Ali required two more good passes to win the prize. (Begin If Ali got.....)

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ii. She was a very beautiful girl and everyone admired her. (Rewrite using “so”)

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iii. They were wondering if you would join them for the party. (Rewrite using..whether..)

.....

B) Join the following pairs of sentences using the words in brackets and making changes only where necessary. (3mks)

i. This is the house. Otieno built it. (that)

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ii. My friend is coming to stay with me. I have been writing him for two years. (to whom)

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iii. We enjoyed the picnic. The rain was heavy. (inspite of)

.....
C) Fill in the blank spaces of these sentences with most suitable words. (3mks)

i. The children were pleasedthe new words.

ii. We heard it all the radio

iii. We have not seen himMonday.

D) Rewrite the following sentences using one word to replace underlined words. (3mks)

i. These workers jobs may be put at risk if you purchase this machine.

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ii. All people having no fixed place of residence were arrested

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iii. The man who describes matches on radio explained why the goal was disallowed

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E) Fill the blank spaces with correct phrasal verbs (3mks)

i. Chirchiri..... all his energy in the third lap and came last in the race.

ii. The lorrydriver tried to.....the policeman by offering him bribe.

iii. How is your experiment.....? Asked the teacher.

101/ 3

ENGLISH PAPER 3

(Creative Composition and
Essays based on set texts)

2 ½ hours

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

INSTRUCTIONS TO CANDIDATES

- Answer **three** questions.
- Questions **one** and **two** are **compulsory**.
- In question three choose only **one** of the optional texts you have prepared on.
- Where a candidate presents work on more than one optional text, only the first one to appear will be marked.
- Each of your essays **must** not exceed 450 words.
- All questions have equal marks.
- All answers to be written in the answer booklet provided.

This paper consists of 2 printed pages.

Candidates should check to ensure that all pages are printed as indicated and no questions are missing

1. Compulsory: Imaginative composition (20marks)

Either

Write a composition beginning with the following: It all started as a rumour but no one in the family took it seriously until... (20 marks)

Or

(b) Argue out the belief that “If devolution has to succeed the youth have to be empowered fully.” (20 marks)

2. The Compulsory set text (20 marks)

H.R. Ole Kulet: Blossoms of the Savannah

“The strong bond between Resian and Taiyo contributes significantly to their triumph.” Write an essay in support of this statement.

3. The optional set texts

Answer any one of the following three questions:

Either

a) The Short Story

Chris Wanjala: *Memories We lost and Other Stories*

Discuss the devastating effects that conflicts have on the innocent children and women in Mariutu Kamara’s *The President*.

Or

b) Drama

David Mulwa: *Inheritance*

Misuse of power is a common phenomenon in most African countries. Basing your arguments on *Inheritance by David Mulwa* write an essay to support this statement.

Or

c) The Novel

John Steinbeck: *The Pearl*

a) The Novel *The Pearl* by John Steinbeck

“Greed leads to evil.” Write a composition to show the truth of this statement using illustrations from John Steinbeck’s **The Pearl**. (20 Marks)

102/ 1
KISWAHILI
(INSHA)
KARATASI YA KWANZA
SAA: 1 ³/₄

MTIHANI WA LIKIZO WA CHAMPIONS-2020
HATI YA KU HITIMU KISOMO CHA SHULE YA UPILI (K.C.S.E)

102/ 1
KISWAHILI
(INSHA)
KARATASI YA KWANZA
SAA: 1 ³/₄

MAAGIZO

- ❖ Andika insha mbili. Insha ya kwanza ni ya lazima.
- ❖ Kisha chagua insha moja nyingine kutoka kwa hizo zilizobakia.
- ❖ Kila insha isipungue maneno mia nne
- ❖ Kila insha ni alama 20
- ❖ *Karatasi hii ina kurasa nne zilizopigwa chapa.*
- ❖ *Watahiniwa ni lazima waangalie zote za Karatasi hii zimepigwa chapa sawasawa na kuwa maswali yote yamo.*

MASWALI

1. Wewe ni katibu wa chama cha kiswahili shuleni mwenu. Andika barua kwa wizara ya elimu ukipendekeza kiswahili kitumike kama lugha ya maelekezo darasani kwa masomo yote ,katika shule zote nchini kumbuka barua ipitie kwa mwalimu mkuu wa shule yako.
2. Sayansi na ufundi zina muhimu katika kuimarisha maendeleo ya taifa .Jadili.
3. Andika insha kuonyesha busara iliyomo katika methali:mti mkuu ukigwa ,wana wa ndege huyumba.
4. Andika insha itakayomalizika kwa maneno haya;...nilijuta nilipotafakari ya nyuma ,mchozi yalinitoka nilipokumbuka wosia wa walimu, wazazi na wezangu.

102/ 2
KISWAHILI
(LUGHA)
KARATASI YA PILI
SAA: 2 ½

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

MTIHANI WA LIKIZO WA CHAMPIONS -2020
Cheti Cha Kuhitimu Kisomo Cha Sekondari Nchini Kenya. (K.C.S.E)

MAAGIZO

- ❖ Andika jina lako nambari yako na tarehe katika nafasi ulizoachiwa hapo juu.
- ❖ Jibu maswali yote. Andika majibu katika nafazi zilizoachwa katika kijitabu hiki cha maswali.

KWA MATUMIZI YA MTAHINI

SWALI	UPEO	ALAMA
1	15	
2	15	
3	40	
4	10	
JUMLA	80	

1.

UFAHAMU (alama 15)

Soma kifungu kifuatacho kasha ujibu mswali

Idadi ya watu wanaotoka sehemu za mashambani kwenda mijini kutafuta ajira huzidi kuongezeka kila mwaka. Kile wasichokijua wahamiaji hao ni kuwa kuna njia nyingine nyingi za kujipa riziki mojawapo ikiwa ni kujiajiri. KU ndiyo sababu wanafunzi wanashauriwa daima kutumia elimu na maarifa wanayopata shuleni na vyuoni kujitegemea kwa kuanzisha kazi zao za kibinafsi

Wengi watasema kuwa ni vigumu mtu kuanza kazi kama hizo bila kuwa na mtaji. Ndiyo, mtaji huhitajika katika kustawisha kazi yoyote ile lakini zipo njia nyingi za kujikwamua na kuwezesha hili kufanyika. Mojawapo ni kujiwekea akiba kidogokidogo kwa muda hata kutokana na masurufu yako ya shuleni.

Manufaa ya ajira ya mtu binafsi ni kwamba inamwezesha mtu huyo kuiendeleza kazi yake bila kuingiliwa na mtu mwingine. Mtu hupata fursa ya kujihusisha na shughuli

mbalimbali zinazohusiana na kazi yake kama vile mauzo, masuala ya usimamizi wa kifedha, mipango na hata kuwasimamia wale wanaomfanyia kazi. Bila shaka ni fahari kuu kujisimamia na kufanya kile ambacho unakifurahia mbali na kuwa utapata fursa ya kuwachagua wale ambao ungependa kufanya nao kazi. Aidha utaweza kuwahudumia wateja wako na hivyo kukuwezesha kujua vyema mahitaji yao

Kujisimamia katika kazi yako vilevile kutakuwezesha kudhibiti maamuzi yote ambayo yanaathiri shughuli zako za kikazi. Utakuwa huru kuweka mikakati bora ya kibiashara, taratibu za kuhakikisha ubora wa bidhaa na huduma zako, bei za bidhaa zako na kadhalika. Pamoja na hayo, hutaishi kwa hofu ya kuachishwa kazi kwa kufanya mambo jinsi uonavyo kuwa ni mwafaka. Isitoshe, utaweza kupanua tajriba yako kikazi kadiri unavyozidi kujishirikisha na kazi zako, pamoja na kuwa utapata uhuru wa kuamua namna ya kutumia muda wako kufanya kazi na maeneo ya kufanyia kazi, yote yakikuendea vyema bila shaka utaweza kupata pesa nyingi kuliko kiasi ambacho ungepata kwa kuajiriwa -

Kwa upande mwingine, kujiajiri kunahitaji kujitolea kwa hali ya juu. Zipo nyakati ambapo utahitajika kutafuta pesa zaidi ili kufidia upungufu fulani au kulipia baadhi ya bili zako. Aidha, zipo nyakati ambapo utajinyima baadhi ya mahitaji ama starehe ili kutimiza ndoto zako. Unafaa pia kukumbuka kuwa, kwa kila siku utakayokosa kufanya kazi hakuna kiasi cha pesa utakazopata kwa hivyo utalazimika kutumia muda wako mwingi ukifanya kazi, mbali na hayo utakuwa ukijilipia bima kama vile ya matibabu pamoja na kujiwekea mpango wa kustaafu. Ikumbukwe pia kuwa pamoja na kuwa na uwezo wa kuwachagua wateja wako, huna uhuru wa kudhibiti matarajio yao ikiwa umeajiriwa.

Kimsingi ukitkz kujajiri lazima uwe tayari kufanya kazi kwa bidii na kwa muda mwingi Zaidi. Ni lazima uweze kuvumilia hatari na mzongo wa akili na uweze pia kukabiliana na majanga au hata hali ya kufeli kwa jambo.

Maswali.

MaswaJi

(a) Ipe taarifa hii kichwa mwafaka. (alama 1)

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(b) Eleza sababu ya watu kugoma mijini (alama 1)

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(c) Eleza njia va kupata chumo. (alama 2)

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(d) Mojawapo ya njia iliyotajwa ina changamoto, ifafanue. (alama 2)

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(e) Tambua manufaa ya kujajiri (alama 4)

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(f) Eleza changamoto za kujajiri

(Alama 3)

(g) Eleza maneno haya kwa kurejelea kifungo

(alama 2)

(i) Masurufu

(ii) Mtaji

UFUPISHO (ALAMA 15)

Nidhamu ni kitu cha maanamaishani mwa binadamu. Kila mwanafunzi anapaswa kuwa na nidhamu ya hali ya juu sana. Akiwa na nidhamu hivo atakuwa mwadilifu anayeweza kustahiwa na kusadikiwa katika mambo, shughuli na hali tofauti tofauti.

Kwanza, mtoto mwenye nidhamu huwa kama anga na nuru nyumbani mwao, shuleni na katika jamii. Watu wote wanampenda nakumheshimu. Wazee kwa vijulanga wote wanamtegemea kama msimamizi wa mambo nyeti ya maisha yao. Kwa hivyo ni dhahiri shahiri kwamba mwadilifu hunufaika sana kinyu7me namkaidi ambaye wahenga walimwambia kwamba atakosa kufaidi hadi siku ya Idi.

Pili, huwadia nyakati ambapo huwa kuna jambo la busara. Mathalanjukumu ama dhima fulani ambayo huhitaji tu mwakilishi mmoja darasani, shuleni au katika jamii. Watu hapana shaka watamteua yule mwadilifu kuchukua nafasi kama hiyo. Ndio maana viranja wanaoteuliwa shuleni huwa wanagenzi ambao tayari wamekwisha tiliwa katika mizani na kupigwa msasa madhubuti.

Vile vile, mwadilifu daima atajiepusha na shutuma na majanga yote yanayoweza kuchipuka. Kuna msemu maarulu kwa husara yake iliyobusarisha mwadilifu kwamba “aliye kando na

haangukiwi na mti.” Piawaliambiwa kwamba, “pili pili usiyoila yakuwashiani?”

Ni bayanana kutokana na misemo hiyo miwili kwamba mwenye nidhamu hawezi kuhusishwa namajanga hatari vanayoweza kuwakumba watu.

Walakini ni vyema kujiuliza, je nidhamu huanzia wapi na kwa nini kuna baadhi ya “watoto” ambao ni watovu wa nidhamu? Utovu wa nidhamu huanzia awali sana maishani mwa mja.

Mtotoanapozaliwa, anategemea mwongozo na mielekeo ya watu wazima ambao wako mazingirani mwake. Ndipo wakalewale waliserna kwamba mtoto akibebwa hutazama kisogo chanina.

Hivi ni kusema kwamba nidhamu au utovu wa nidhamu huanzia nyumbani hadi shuleni, kisha hupanuka hadi kufikia kiwango amhapo mja anatangamana na watu wote katika maisha yake. Ikiwa sekumu moja ya ukuaji wa nidhamu maishani mwa mja itasambaratika, basi hawezi akawa mkamilifu maishani mwake.

Kwa vile nimabaya yote ayatendayo duniani hulipwa na Mola papa hapa duniani watovu wa nidhamu wote huishia kuangamia ama kujuta mno kwa amali zao potovu. Ni heri mja kujihidi mwenyewe kwani uhalifu haulipi chochote.

- (a) Ni nini umuhimu wa nidhamu (Maneno kati ya 50—55) (alama 6)
Matayarisho

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Nakala safi

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- b) Bila kuhadilisha maana fupisha aya **nne** za mwisho (maneno 55-60) (Alama 7)
Matayarisho

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Nakala safi

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MATUMIZI YA 1UGIIA (alama 40)

(a) (i) Taja vipasho viwili vinavyotamkwa ufizini. (alama 2)

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(ii) Andika sauti mwambatano inayotamkiwa mdomoni (alama 1)

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(b) Tunga sentensi moja inayodhihirisha matumizi ya kivumishi cha pekee kilich na maana ya kuisitiza. (alama 2)

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(c) Unda vitenzi kutokana na maneno yafuatayo. (alama2)

Msamaha

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Taifa

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(d) (i) Fafanua maana ya kishazi. (alama 2)

(ii) Tambua aina ya vishazi katika sentensi ifuatayo:-

Mwanafunzi aliyesoma amefaulu mtihani.

(alama 2)

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(e) Ainisha mofimu katika neno lifuatalo.

MLIOPEWA

(alama 3)

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(f) Weka shadda katika neon lifuatalo.

MAKATAA

(alama 1)

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(g) Tunga sentensi yenye kijalizo cha kiima cha nomino.

(alama 2)

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.....

(h) Elezamatumizi ya 'ji' katika sentensi ifuatayo:

Msomaji alijiiuma ulimi

(alama 2)

.....

.....

(i) Onyesha kiarifu kalika sentensi hii.

Kibatari kinatoa mwanga hafifu.

(alama 2)

.....
.....
(j) Andika katika udogo wingi
Nyoka aliyekuwa na mkia mrefu aliingia nyumbani pole pole. (alama 2)

.....
.....
(k) Taja matumizi mawiliya paradesi. (alama 2)

.....
.....
(l) Tambua aina mbalimbali za nomino katika sentensi hii:
Kundi la wajenzi limemjengea Gekonde nyumba ya kuhifadhia maziwa. (alama 2)

.....
.....
(m) Kwa kutolea mifano miwili, eleza miundo miwili ya nomino katika ngeli ya A- WA. (alama 2)

.....
.....
(n) Tambulisha nyakati na hali za sentensi zifuatazo. (alama 2)

(i) Naja

(ii) Nilikuwa nimeketi aliponitembelea

.....
.....
(o) Bainisha shamirisho kipozi, kitondo na ala katika sentensi ifuatayo:
Asha aliwapelekea wageni chakula kwasinia. (alama 3)

(p) Andika sentensi hii katika usemi halisi.
Nvaboke alimwambia mjomba wake kuwa angempokea shangazi iwapo angempata. (alama 2)

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

(q) Changanua sentensi hii ukitumia visanduku.
Mwizi aliyetuibia janaamekamatwa hatimaye. (alama 3)

(r) Toa kisawe cha ugali (alama 1)

.....
.....

SIMUJAMH (Alama 10)

..... kastoma kuna strong tea, githeri

(i) Hii ni sajili gani? (alama 1)

.....
.....

(ii) Andika nenomwafaka la Kiswahili kwamsamiati ufuatao: (alama 3)

Kastona

.....

Strong tea

.....

Githeri

.....

(iii) Eleza sababu mbili zinazomfanya msomaji kutumia msamiati huu. (alama2)

.....
.....

(iv) Eleza sifanne za sajili hii. (alama 4)

102/3
KISWAHILI
KARATASI YA 3
Fasihi
MUDA : SAA 2 ½

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

MTIHANI WA LIKIZO WA CHAMPIONS -2020
Cheti Cha Kuhitimu Kisomo Cha Sekondari Nchini Kenya. (K.C.S.E)

MAAGIZO:

- *Andika jina lako na nambari yako katika nafasi ulizoachiwa hapo juu*
- *Jibu maswali manne pekee.*
- *Swali la kwanza ni lazima.*
- *Maswali hayo mengine yachaguliwe kutoka sehemu nne zilizosalia yaani; (Riwaya, Hadithi fupi, Ushairi na fasihi simulizi.)*
- *Usijibu maswali mawili kutoka sehemu moja*

SEHEMU A: FASIHI SIMULIZI

Jibu maswali yote

Nalitazama jua likichwa,
Matumaini yangu yakizama pamoja
na miale miekundu
Nalidhani lilikuwa jinamizi tu
Kwamba ulikuwa kesha n'acha
Walikuwa wameisha n'ambia
Walimwengu
Ela nilikataa katakata walosema
Nikajitia kuamini waloamba yalikuwa
Uzushi
Hadi siku hii nilopokea waraka,
Waraka ambao ulikuwajeneza ka kuzikia
Pendo letu la miongo miwili.

a)
i) Hiki ni kipera gani cha fasihi simulizi? (alama 2)

ii) Eleza majukumu matano ya kipera hiki katika jamii. (alama 5)

b) Eleza sifa 5 za mtambaji hodari. (alama 5)

c) Andika sifa 5 za ngano. (alama 5)

d) Eleza umuhimu wa fomula ya kumaliza katika utambaji
wa ngano. (alama 3)

SEHEMU YA B: RIWAYA

Asumpta Matei: Chozi La Heri

2. ‘Lakini itakuwaje historical injustice, nawe Ridhaa hapo ulipo sicho kitovu chako?’

a) Eleza muktadha wa dondoo hili. (alama 4)

b) Eleza tamathali mbili za lugha zilizoumika kwenye dondoo hili. (alama 4)

c) Fafanua sifa 3 na umuhimu wa msemaji wa maneno haya. (alama 6)

d) Taja mambo **SITA** yaliyowakumba wale ambao kitovu chao sicho walicho? (alama 6)

SEHEMU C: TAMTHILIA

Pauline Kea – Kigogo Jibuswali la 4 au la 5

4. Siwezi nini? Naweza! Wewe ndiwe hujanipa fursa ya kukuthibitishia. Simba hageuki paka kwa kukatwa makucha.”

a) Eleza muktadha wa dondoo hili (alama 4)

b) Eleza semi moja ambayo imetumika katika dondoo. (alama 2)

c) Ni nini ambacho msemaji anasema kuwa anaweza? (alama 2)

6. “Kweli mwalimu mkuu ana kazi nyingi na nyingine lazima aende usikuusiku kuzipunguza. Lakini leo ni leo...”

a) Weka dondoo hili katika muktadha wake. (alama 4)

b) Eleza sifa 3 za mzungumzaji. (alama 6)

c) Eleza mbinu zifuatazo kama zilivyotumiwa katika hadithi:
i) sadfa (alama 6)

ii) majazi (alama 4)

SEHEMU E: USHAIRI

Soma shairi lifuatalo kasha ujibu maswali yote

Uganambia ni mui, katu siuwati wema,
Wewe ndiwe wangu bui, na Lousiwa ni mama,
Neno kwamba suijui, ni kupotosha heshima,
Siasi kutenda wema, kaandama uadui.

Wema nambiwa na ndia, hadi bandari salama,
Hayo niliyasikia, wao wahenga wa zama,
Penye wema tajitia, nipate taadhima,
Siasi kutenda wema, japo munganinunia.

Ni iwe kupawa mali, ya kuhadaa mtima,
Niandame ufidhuli, nitengane nao wema,
Hilo sitokubali, hapo waja wangasema,
Siasi kutenda wema, ujjapokuwa ni ghali.

Sitomcha kabaila, nganiteuza nache wema,
Muunganitia na jela, kisa imefanza huruma,
Haragwe lenu talila, pamoja na yenu sima,
Siasi kutenda wema, japo tagoni talala.

Haufi mungaufisha, au hamipo karima,
Mola atauhusha, weleleapo kuzama,
Mimi ni huo maisha, hadi siku ya kياما,

Siati kutenda wema, nganitia mshawasha.

Wema ingawa mchungu, tajaribu kutotema,
Tautenda nenda zangu, niache wanaosema,
Malipo yangu kwa Mungu, hayo, yenu si, lazima,
Siati kutenda wema, kigharimu roho yangu.

(a) Ukizingatia beti **nne** za mwanzo, taja mambo ambayo hata mshairi akifanyiwa hawezi kuacha kutenda mema.

(alama 4)

(b) Eleza jinsi mtunzi wa shairi hili alivyotumiwa uhuru wake.

(alama 4)

(c) Mshairi alipata wapi ari ya kuzingatia wema?

(alama 1)

(d) Eleza maudhui ya shairi hili.

(alama 2)

(e) Fafanua muundo wa ubeti wa pili.

(alama 2)

(f) Andika ubeti wa mwisho katika lugha ya nathari.

(alama 4)

(g) Eleza maana ya maneno yafuatayo kama yalivyotumika katika shairi.

(alama 3)

- (i) Mtima _____
(ii) Kutotema _____
(iii) Kigharimu roho yangu _____

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CHEMISTRY FORM FOUR

PAPER 1

TIME: 2 HOURS

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

Chemistry

Paper 1

INSTRUCTIONS TO CANDIDATES:-

- Write your *name* and *index number* in the spaces provided above.
- Sign and write the date of examination in the spaces provided above.
- Answer *all* the questions in the spaces provided below each question.
- Mathematical tables and electronic calculators may be used
- All working *MUST* be clearly shown.

For Examiner's Use Only

Question	Maximum score	Candidate's score
1-28	80	

This paper consists of 11 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing

1. Below is a Bunsen burner flame.



(a) Describe how this type of flame is produced. (1mk)

.....
.....

b) Label on the diagram the least hot part of the flame. (1mk)

c) Name the gas produced by a burning candle that is non-pollutant. (1mk)

.....

2. The electron arrangement ions X^{3-} and Y^{2-} are 2,8 and 2.8.8 respectively.

a) Write the electronic arrangements of the elements **X** and **Y**. (1mk)

b) Write the formula of the compound that would be formed between **X** and **Y**. (1mk)

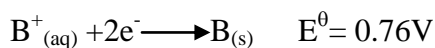
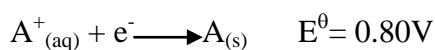
3. a) Write a chemical equation for the reaction that occur when Carbon (iv) oxide gas is bubbled in calcium hydroxide solution. (1mk)

.....
.....

b) Give a reason why potassium hydroxide solution is not used to identify carbon (IV) oxide in the laboratory. (2mks)

.....
.....

4. Below are standard electrode potentials for two half cells.



i) Write the cell representation when **two** half cells are combined to give an electrochemical cell.

(1mk)

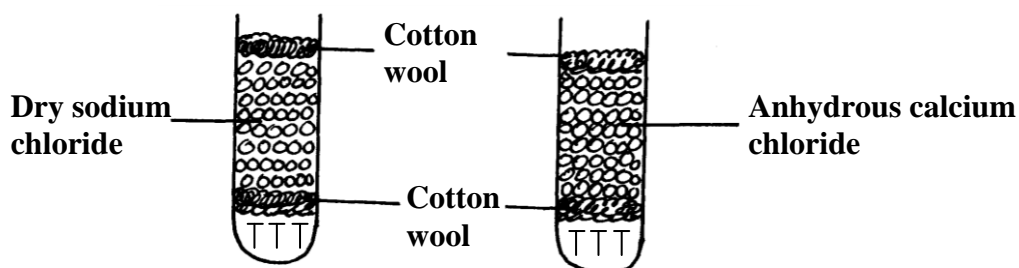
.....

ii) Write the cell equation for the reaction that occur when the two half cells are combined. (1mk)

.....

iii) Calculate the **e.m.f** of the electrochemical cell formed from **A** and **B**. (1mk)

5. Study the diagram below and answer the questions that follow.



a) State and explain the observations made after two weeks. (2mks)

.....

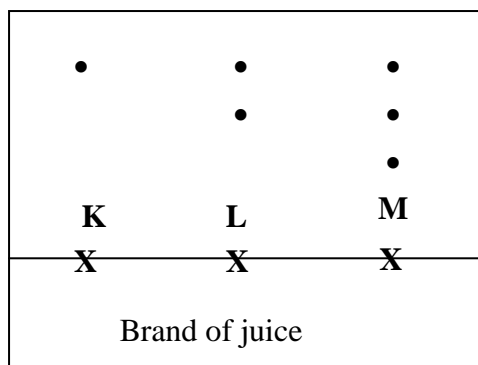
.....

b) Give **one** reason for Silver plating an Iron spoon (1mk)

.....

6. In a neutralization reaction, sodium carbonate solution was dissolved in water and the solution made to 250cm^3 . 25cm^3 of this solution neutralized 20cm^3 of 0.25M nitric acid. Calculate the mass of Sodium carbonate that was dissolved in water. (3mks)

7. The diagram below represents a paper chromatogram for three brands of juices suspected to contain banned food colorings.



The results showed the presence of banned food colorings in **L** and **M** only. On the same diagram:

- a) Circle the spot which show the banned food colorings (2mks)
- b) Show solvent front. (1mk)
8. a) State and explain the observation that would be made when a few drops of concentrated sulphuric acid are added to a small sample of hydrated copper (II) sulphate (2mks)

.....

.....

.....

- b) Write a chemical equation for the reaction which occurred. (1mk)

.....

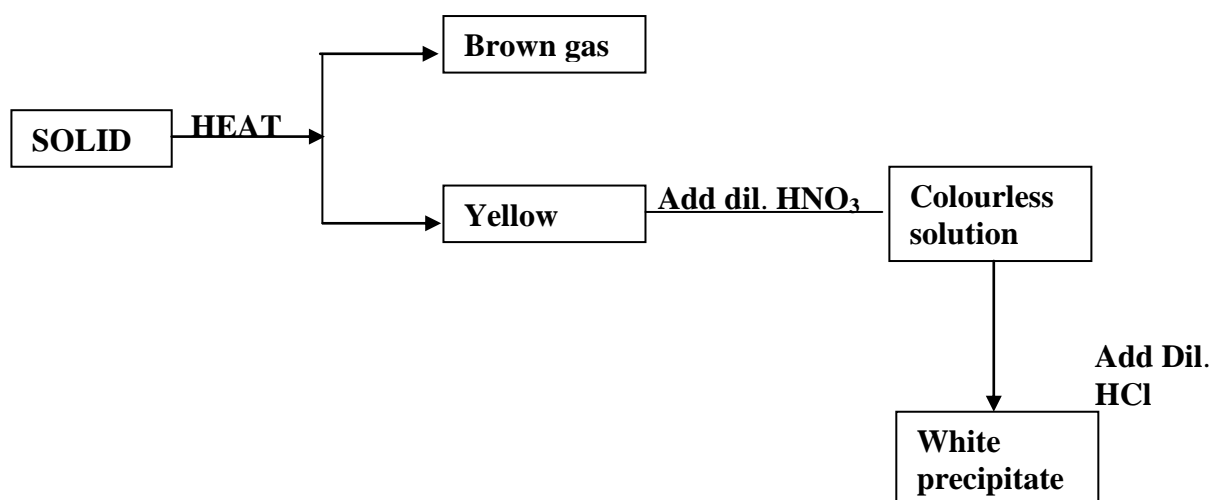
9. The empirical formula of a hydrocarbon is **C₂H₃**. The hydrocarbon has a relative molecular mass of **54**. (**H= 1.0, C = 12.0**)

- a) Draw the structural formula of the hydrocarbon (2mks)

- b) To which homologous series does the hydrocarbon drawn in (b) above belong? (1mk)

.....

Study the flow chart below and answer the questions that follow:



a) Identify the cation and anion present in solid F. (2mks)

i) Cation.....

ii) Anion.....

b) Write ionic equation for the formation of the white precipitate. (1mk)

.....

.....

11. When bromine gas reacts with aqueous sodium hydroxide, the equilibrium represented by the equation: $\text{Br}_{2(\text{aq})} + 2\text{OH}^{-}(\text{aq}) \rightleftharpoons \text{Br}^{-}(\text{aq}) + \text{OBr}^{-}(\text{aq}) + \text{H}_2\text{O}$ is established.

What observations would be made if a few drops of sulphuric acid were added to the equilibrium mixture? Explain (3mks)

.....

.....

.....

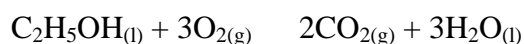
12. Use the information below to answer the questions that follow:

Equation	Enthalpy of formation
$\text{H}_2(\text{g}) + \frac{1}{2} \text{O}_2(\text{g}) \longrightarrow \text{H}_2\text{O}(\text{l})$	$\Delta H_1 = -286 \text{ kJ mol}^{-1}$
$\text{C}(\text{s}) + \text{O}_2(\text{g}) \longrightarrow \text{CO}_2(\text{l})$	$\Delta H_2 = 394 \text{ kJ mol}^{-1}$
$2\text{C}(\text{s}) + 3\text{H}_2(\text{g}) + \frac{1}{2} \text{O}_2 \longrightarrow \text{C}_2\text{H}_5\text{OH}(\text{l});$	$\Delta H_3 = 277 \text{ kJ mol}^{-1}$

a) Define the term “enthalpy of formation of a compound (1mk)

.....

(b) Calculate the molar enthalpy of combustion, ΔH_c of ethanol: (2mks)



13. a) Using dots (.) and crosses (x) to represent electrons draw diagram to represent the bonding in:

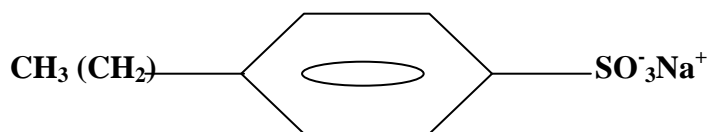
i) NH_3 (1mk)

ii) NH_4^+ (1mk)

(a) State why an ammonia molecule (NH_3) can combine with H^+ to form NH_4^+ (Atomic numbers: N=7 and H=1)

14. On strong heating, sodium nitrate produce oxygen gas. In the spaces provided below, draw a labeled diagram of a set-up that could be used for heating sodium nitrate and collecting the oxygen gas liberated. (3mks)

15. A compound whose structure is shown below is found in a detergent.



With reference to the structure, explain how the detergent removes grease during washing.(2mks)

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

16. At 40°C , 25cm^3 of aqueous potassium nitrate has a concentration of 0.22moles. Calculate the solubility of the potassium nitrate. (K=39, N=14, O=16) (3mks)

17. Starting with distilled water and solid Lead (II) nitrate: describe how a sample of Lead (II) carbonate can be prepared. (3mks)

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

18. On the grid provided, sketch curves of volume of Hydrogen gas produced against time when Magnesium ribbon reacts with 1M, 1.5M and 2M hydrochloric acid. (3mks)



19. In the manufacture of Sodium by electrolysis, why is calcium chloride added to the molten electrolyte? (1mk)

.....

- 20 a) Differentiate using equations, the bleaching action of sulphur (IV) oxide and chlorine gas. (2mks)

.....

.....

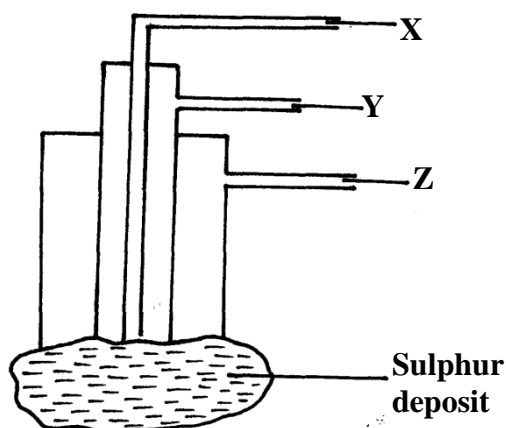
.....

.....

- b) A part from bleaching, state the use of sulphur (IV) oxide. (1mk)

.....

21. Study the diagram showing extraction of sulphur from underground deposit.



- a) i) State the role of substance X (1mk)

.....

- ii) Name substances Y and Z (1mk)

.....

- b) Give **one** use of sulphur. (1mk)

.....

22. When 0.8g of Ammonium nitrate was dissolved in 100cm³ of water, the temperature changed from 24⁰C to 22⁰C. Calculate the molar enthalpy of dissolution. (1mk)
N=14, H=1, O = 16; specific heat capacity of water is 4.2Jg⁻¹K⁻¹; density of water is 1gcm⁻³.

23. When a few drops of aqueous ammonia is added to solution A, a white precipitate is formed. The white precipitate dissolves when excess ammonia solution is added.

a) Write the cation present in solution A (1mk)

.....

b) Write ionic equation for the production of the white precipitate. (1mk)

.....

c) Give the formula of the complex ion formed when excess ammonia solution is added to solution A.

.....

24. a)What is observed when a few drops of phenolphthalein indicator is added to a solution whose pH value is 3.0? (1mk)

.....

b) Write an equation for the reaction between:

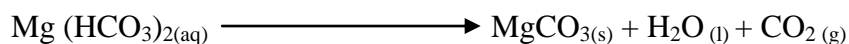
i) Lead (ii) oxide and dilute Nitric acid. (1mk)

.....

ii)Lead (ii) oxide and sodium hydroxide solution. (1mk)

.....

25. a)Study the equation below and use it to determine the type of water hardness being removed. (1mk)



b) State **one** disadvantage of water hardness. (1mk)

.....

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

CHEMISTRY
PAPER 2

INSTRUCTIONS TO CANDIDATES:

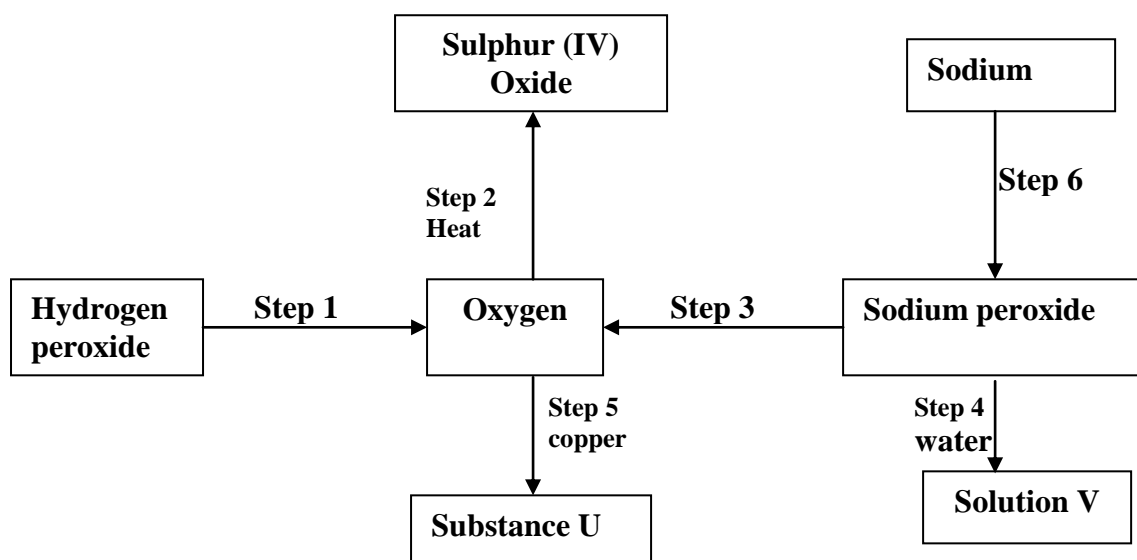
- Write your **name**, **school** and **index number** in the spaces provided above
- **Sign** and write the **date** of examination in the spaces provided.
- Answer **all** the questions in the spaces provided.
- All working **must** be clearly shown where necessary.
- **Mathematical tables** and **electronic calculators** can be used.

For Examiners Use Only

Question	Maximum score	Candidate's score
1	11	
2	10	
3	14	
4	11	
5	15	
6	11	
7	08	
Total	80	

This paper consists of 10 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.

1. Study the reaction scheme below and answer the questions that follow.



a) Identify the substances labelled:

i) Substance **U** (1mk)

.....

ii) Solution **V**. (1mk)

.....

b) Name the reagents necessary for the reactions in the following steps. (4mks)

i) Step 1

.....

ii) Step 2

.....

iii) Step 3

.....

iv) Step 6

.....

c) Give the condition necessary for the reaction in step 5 to take place. (1mk)

.....

d) Write equations for the reactions in the following steps (3mks)

i) Step 1

.....

ii) Step 2

.....

iii) Step 5

.....
e) State and explain the observation made in step 5. (1mk)

.....
2. a) The results of an experiment to determine the solubility of solid **Y** in water at 40⁰C were as follows.

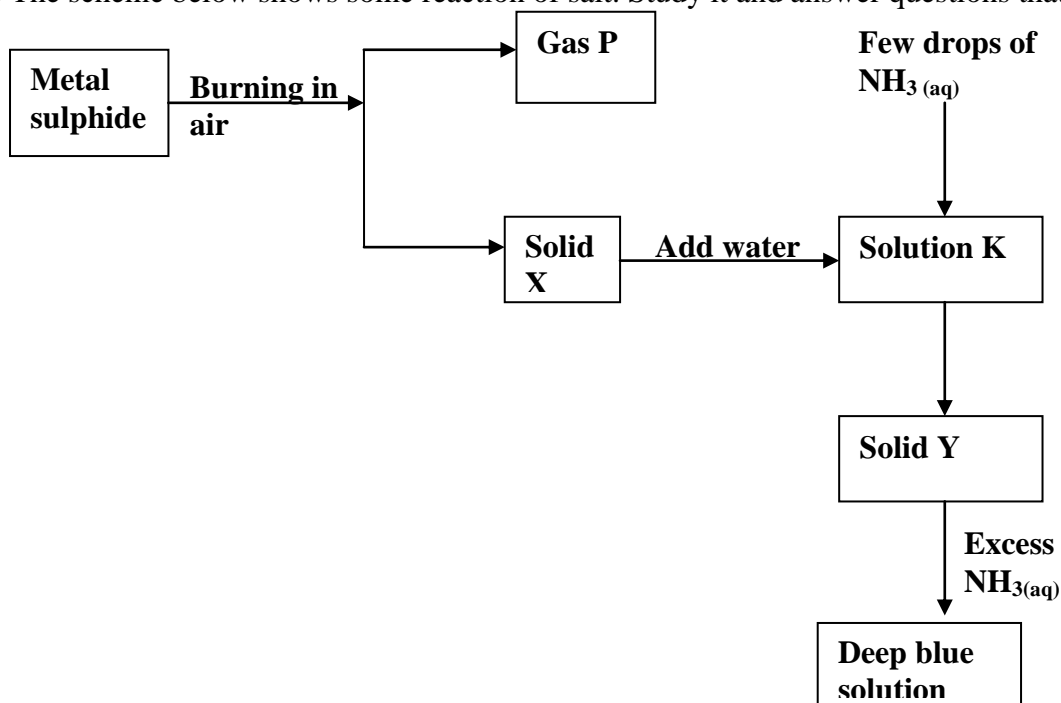
Mass of dish = 16.9g

Mass of dish + saturated salt at 40⁰C = 26.955g

Mass of dish + solid after evaporation to dryness = 17.96g

Determine solubility of solid **Y** using the data above. (3mks)

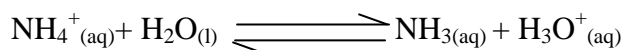
b) The scheme below shows some reaction of salt. Study it and answer questions that follow.



i) Write an equation for the reaction to show formation of gas **P** and solid **X**. (1mk)

.....
ii) Give the name and formula of the complex ion responsible for the deep blue colour in the solution. (2mks)

c) Study the equation below and answer the questions that follow:



Identify the reactant that acts as an acid in the reverse process. Explain your answer. (2mks)

.....

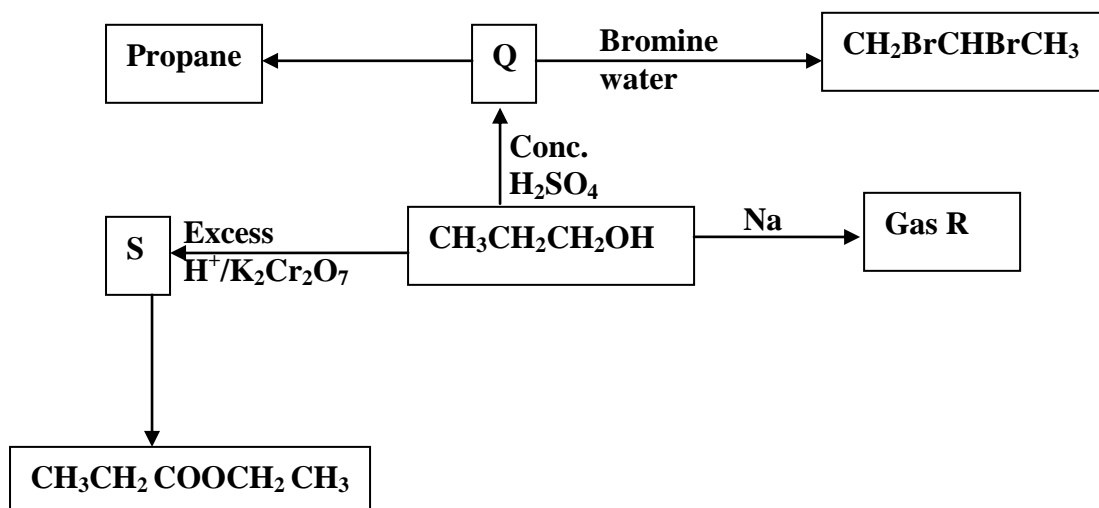
d) i) What is meant by hard water? (1mk)

.....

ii) Using an ionic equation, explain how sodium carbonate removes permanent hardness of water. (1mk)

.....

3. The scheme below shows several reactions starting with propanol. Study the scheme and answer the questions which follow.



a) Name gas **R**. (1mk)

.....

b) Name and draw the structural formula of compound **Q**. (2mks)

c) What conditions and reagents are necessary to convert **S** to $\text{CH}_3\text{CH}_2\text{COOCH}_2\text{CH}_3$ (2mks)

Reagents;

.....

Conditions;

.....

d) Write an equation for the reaction that takes place when equal volumes of chlorine gas react with propane. (1mk)

.....

e) The table below shows some properties of organic compounds **U**, **V**, and **W**. use the information to answer the questions that follow.

	W	V	U
Reaction with liquid bromine.	Decolourise bromine very fast	No reaction	Decolourises bromine liquid slowly
Combustion	Burns with yellow smoky flame	Burns with a blue flame leaving no residue	Burns with a yellow sooty flame
Reaction with conc. H ₂ SO ₄	No reaction	It is dehydrated to form compound U .	Reacts to form V .

To which homologous series do the following compounds belong? (3mks)

U.....

V.....

W.....

f) CH₂=CH – CH₃ when heated under high temperatures and pressures forms a solid with large molecular mass.

i) Write the equation for the reaction which involves the formation of the solid. (1mk)

.....
.....

ii) Name the solid and give **one** use of the solid

Name (1mk)

.....

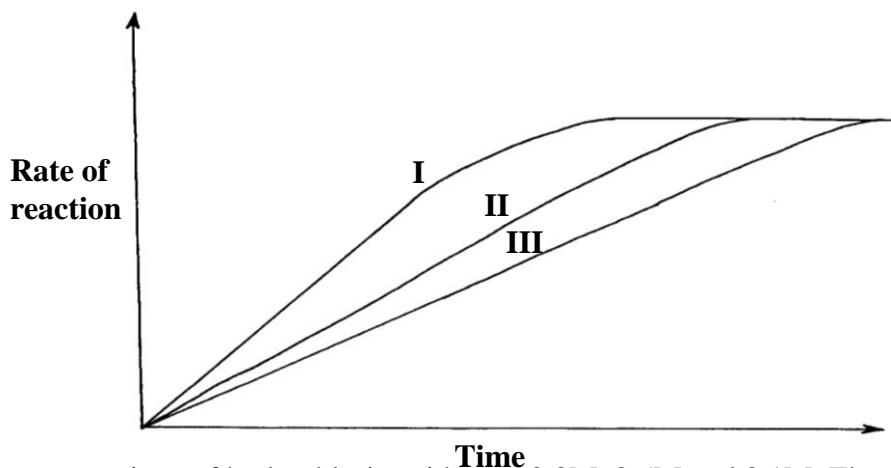
Use (1mk)

.....

g) State **two** uses of cracking. (2mks)

.....
.....

4. a) Below is a graph that was obtained when different concentrations of hydrochloric acid was reacted with equal amount of calcium carbonate.



The concentrations of hydrochloric acid were 0.8M, 0.5M and 0.1M. The calcium carbonate was in powder form. Match the graphs with concentration.

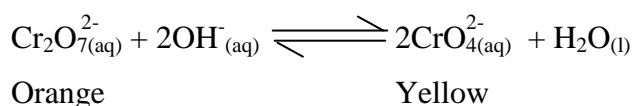
Graph I (1mk)

.....

Graph III (1mk)

.....

- b) A state of equilibrium between dichromate (VI) and chromate ions is established as shown in the equation below.



i) What is meant by dynamic equilibrium? (1mk)

.....

ii) State and explain observation made when a few pellets of potassium hydroxide are added to the equilibrium mixture. (2mks)

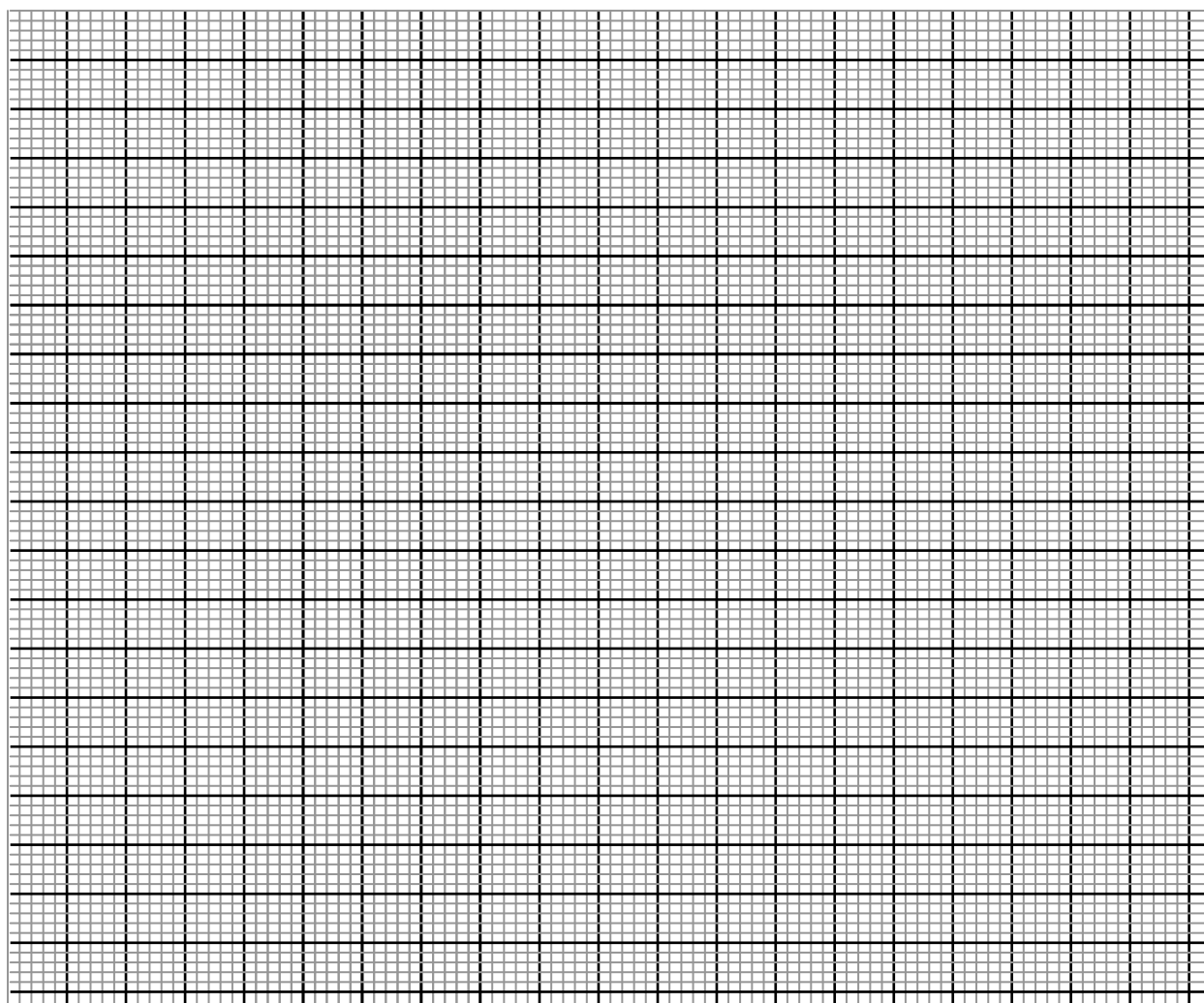
.....

c) An experiment was done using magnesium ribbon and dilute hydrochloric acid of different concentrations. The time needed to produce 50cm^3 of the gas for every experiment was recorded in the table below.

Conc. Of HCl in mol/Litre	2.0	1.75	1.50	1.25	1.00	0.75	0.50	0.25
Time in Sec (s)	8.8	10.0	11.7	13.5	17.5	22.7	35.5	70.0
$\frac{1}{t} \text{Sec}^{-1}$								

i) Complete the table above. (2mks)

ii) Plot a graph of rate ($\frac{1}{\text{time}}$) against concentration. (3mks)



iii) Determine from your graph the concentration needed to produce 50cm^3 of hydrogen gas, when time is 15 seconds. (1mk)

5. Use the table below to answer the questions that follow. (The letters are not actual symbols of the elements)

Element	Atomic number	M.P (⁰ C)
A	11	97.8
B	13	660
C	14	1410
D	17	-101
E	19	63.7

a) Write the electronic arrangement for the ions formed by the elements **B** and **D** (2mks)

.....

b) Select an element which is

i) A poor conductor of electricity. (1mk)

.....

ii) The most reactive non-metal. (1mk)

.....

c) To which period of the periodic table does element **E** belong? (1mk)

.....

d) Element **E** losses its outermost electron more readily than **A**. Explain. (2mks)

.....

e) Use dots (•) and crosses (x) to represent the valence electrons and show the bonding in the compound formed between element **C** and **D**. (2mks)

f) Explain why the melting point of element **B** is higher than that of element **A**. (2mks)

.....

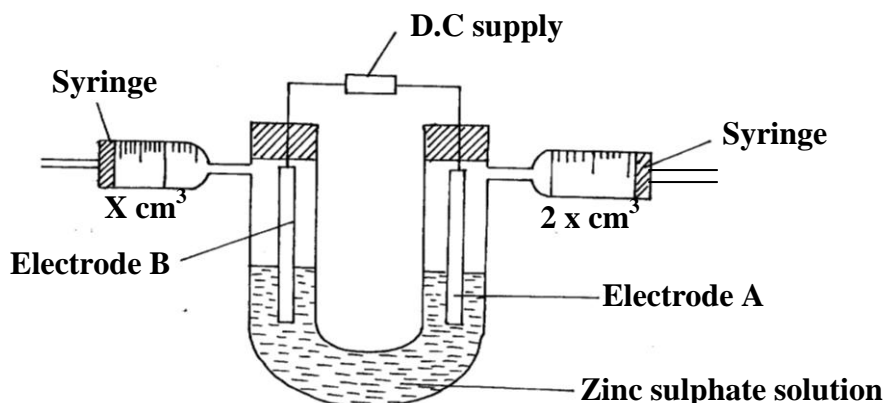
g) Write an equation for the reaction that takes place between element **A** and water. (1mk)

.....

h) Describe how a solid mixture of the sulphate of element **E** and lead (ii) sulphate can be separated into solid samples. (3mks)

.....

6. An aqueous solution of zinc sulphate is electrolysed using platinum electrodes as shown in the set up below.



a) i) Write a half equation for the reaction taking place at electrode **A**. (1mk)

.....

ii) Identify electrode **B** (1mk)

.....

iii) Explain observation at electrode **B** if copper plate was used instead of platinum electrode. (2mks)

.....

.....

b) 0.22g of metal **Q** is deposited by electrolysis when a current of 0.06A flows for 99 minutes.
 (RAM of **Q** = 184, 1F = 96500c)

i) Find the number of moles of **Q** deposited. (1mk)

.....

ii) Determine the value of n in the metallic ion Q^{n+} (3mks)

.....

.....

.....

c) Determine oxidation number of chlorine in ClO_3^- (1mk)

.....

.....

d) An iron spoon is to be electroplated with silver. Draw a labelled diagram to represent the set-up that could be used to carryout this process. (2mks)

7. In an experiment to determine the molar heat of reaction when magnesium displaces copper
- a) 0.36g of magnesium powder were added to 25cm³ of 1M copper (II) chloride solution, the temperature of solution increased by 43⁰C.

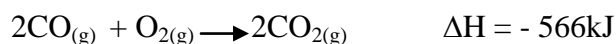
(Cu = 63.5 Mg = 24.0 specific heat capacity = 4.2J/g/K)

- i) Other than increase in temperature, state and explain the other observation made. (2mks)

.....
.....

- ii) Determine the molar heat of displacement of copper. (3mks)

- b) Given the following reactions



- i) Using an energy cycle diagram, calculate the molar heat of formation of carbon (IV) oxide (3mks)

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

CHEMISTRY
PAPER 3

INSTRUCTIONS TO CANDIDATES:

- Answer *all* the questions in the spaces provided.
- Write your *name* and *index number* in the spaces provided above.
- You are **not allowed** to start working with the apparatus for the first 15 minutes of the 2 1/4 hours allowed for this paper. This time is to enable you to read the question paper and make sure you have all the chemicals and apparatus that you needed.
- Mathematical tables and electronic calculators may be used for calculations.
- All workings *must* be clearly shown where necessary

For Examiner's Use only:

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1	22	
2	10	
3	8	
Total Score	40	

This paper consists of 6 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.

1. **You are provided with:**

- 4.5g of solid **P** in a boiling tube
- Solution **Q**, 0.2M sodium hydroxide
- Phenolphthalein indicator.

You are required to determine:

- I) The solubility of solid **P** at different temperatures
- II) The value of **n** in the formula $(\text{HX})_n \cdot 2\text{H}_2\text{O}$ of solid **P**.

PROCEDURE I

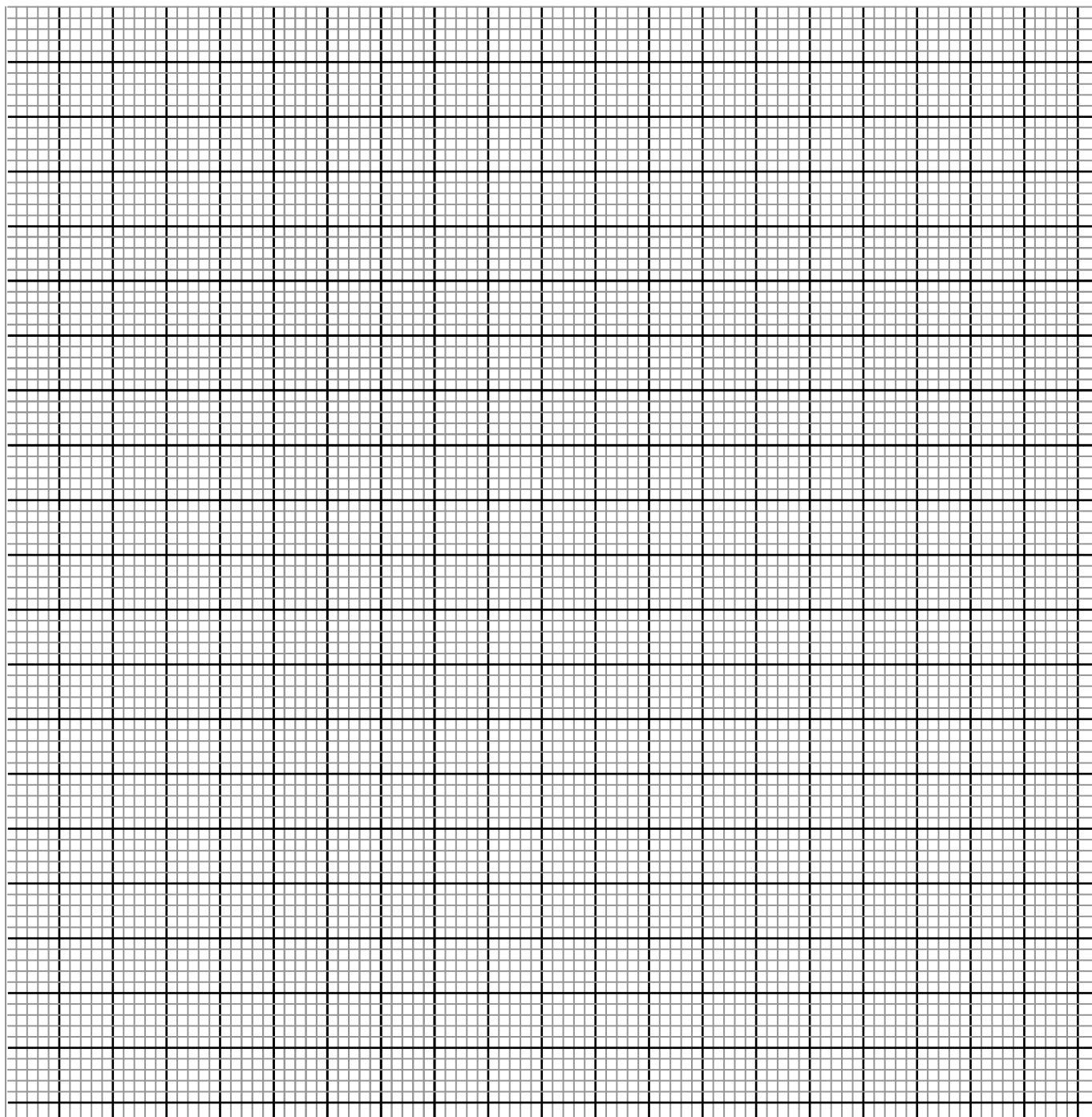
- i) a) Fill the burette with distilled water. Using the burette, add 4.0cm^3 of distilled water to solid **P** in a boiling tube. Heat the mixture in a water bath while stirring with a thermometer to about 70°C until all the solid dissolves.
- b) Allow the solution to cool while stirring with the thermometer and note the temperature at which crystals of solid **P** start to appear. Record this temperature in table **I**.
- c) Using the burette, add 2.0cm^3 of distilled water to the contents of the boiling tube. Heat the mixture while stirring with the thermometer until all the solid dissolves while in the water bath.
- d) Allow the mixture to cool while stirring and note the temperature at which crystals of solid **P** start to appear.
- e) Repeat the procedure (c) and (d) three more times, heating the solution in a water bath and record the temperature in the table. **Retain the contents of the boiling tube for use in procedure II.**
- ii) Complete the table by calculating the solubility of solid **P** at the different temperatures. (the solubility of a substance is the mass of that substance that dissolves in 100cm^3 (100gm) of water at a particular temperature.

Table I

Volume of water in the boiling tube (cm^3)	Temperature at which crystals of solid P first appear ($^\circ\text{C}$)	Solubility of solid P (g/100g) of water
4		
6		
8		
10		
12		

(6mks)

i) On the grid provided plot a graph of the solubility of solid **P** against temperature (3mks)



ii) Using your graph determine the temperature at which 100g of solid **P** would dissolve in 100cm³ of water. (1mk)

iii) Determine the solubility of solid **P** at 55⁰C (1mk)

PROCEDURE II

1. Transfer the contents of the boiling tube into a 250ml volumetric flask. Rinse the boiling tube and the thermometer with distilled water and add to the volumetric flask. Add more distilled water to make up to the mark. Label this solution **P**.

Fill the burette with solution **P**. using a pipette and pipette filler place 25.0cm^3 of solution **Q** into a conical flask. Titrate solution **Q** with solution **P**. Using phenolphthaline indicator.

Table II

	I	II	III
Final burette reading cm^3			
Initial burette reading cm^3			
Volume of solution P used cm^3			

(4mks)

Calculate the;

- I) Average volume of solution **P** used in the experiment.

(1mk)

- II) Number of moles of sodium hydroxide used in solution **Q**.

(2mks)

- III) Number of moles of solution **P** given that the relative formula mass of **P**, $(\text{HX})_n \cdot 2\text{H}_2\text{O}$ is 126.

(2mks)

- IV) The number of moles of sodium hydroxide required to react with one mole of **P**. Hence find the value of **n** in the formula $(\text{HX})_n \cdot 2\text{H}_2\text{O}$

(2mks)

2. You are provided with a solid labelled **D**. Carry out the following test, record the observation and make the correct inferences.

a) Place solid **D** in a boiling tube and add about 40cm^3 of distilled water while shaking. Filter the mixture and divide the filtrate into four portions, keep the residue for part (b)

- (i) To the first portion, add sodium hydroxide dropwise till in excess.

Observation	Inferences
-------------	------------

(1mk)	(1mk)
-------	-------

ii) To the second portion, add a few drops of dilute sulphuric (vi) acid.

Observation	Inferences
(1mk)	(1mk)

(ii) To the third portion, add few drops of barium nitrate solution. Followed by few drops of dilute hydrochloric acid.

Observation	Inferences
(1mk)	(1mk)

b) Place the residue in (a) above in a boiling tube. Add dilute nitric (v) acid while shaking till the solid just dissolves. Divide the solution into two portions.

Observation	Inferences
(½mk)	(½mk)

i) To the first portion, add a few drops of sodium hydroxide solution drop wise till in excess.

Observation	Inferences
(1mk)	(1mk)

ii) To the second portion, add a few drops of ammonia solution then in excess.

Observation	Inferences

(½mk)	(½mk)
-------	-------

3. You are provided with liquid **F**. Carry out the following tests. Write your observations and inferences in the spaces provided.

a) Place about 1cm³ of solution **F** on a watch glass. Place a burning splint to the solution on the watch glass.

Observation	Inferences
(1mk)	(1mk)

b) Place about 2cm³ of solution **F** in a test tube, add two drops of potassium dichromate.

Observation	Inferences
(1mk)	(1mk)

c) Place about 2cm³ of solution **F** in a 2nd test tube and add bromine water.

Observation	Inferences
(1mk)	(1mk)

d) To the 3rd portion of 2cm³ of solution **F** add a spatula of sodium carbonate provided.

Observation	Inferences
(1mk)	(1mk)

231/1
BIOLOGY
PAPER 1 FORM FOUR
(THEORY)
TIME: 2 HOURS

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

Biology
Paper 1
Theory

INSTRUCTIONS TO CANDIDATES:-

- Write your **name**, **index number** and **school** in the spaces provided.
- Sign and write the **date** of examination in the spaces provided above.
- Answer **all** the questions in the spaces provided.

For Examiner's Use Only

QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
1 – 29	80	

This paper consists of 8 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.

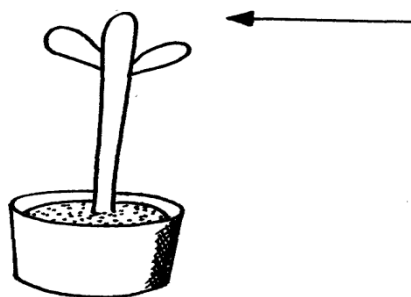
1. The scientific name for French bean is *Phaseolus vulgaris*
- (a) What taxon does the term Phaseolus represents? (1 mark)
-
- (b) State **two** rules that are followed when giving a scientific name to an organism. (2 marks)
-
-

2. a) What is the function of the mirror in the microscope? (1 mark)
-

- b) Which organelle would be abundant in:
- Skeletal muscle cell (1 mark)
-

- Palisade cell (1 mark)
-

3. A seedling shoot was exposed to unidirectional light as shown below. The set up was left in the dark room for three days.



- i) Make a drawing of the expected results at the end of the experiment. (2 marks)
-
-

- ii) Explain the expected results at the end of experiment. (2 marks)
-
-

4. State **two** advantages of breathing through the nose than through the mouth. (2 marks)
-
-

5. Name **two** mineral elements required in the synthesis of chlorophyll. (2 marks)
-
-

6. a) State **two** environmental condition that can cause seed dormancy. (2 marks)

.....
.....

b) Name the part of the leaf that elongates to bring about epigeal germination. (1 mark)

.....

7. a) State the function of amylase in human body. (1 mark)

.....

.....

b) Name **two** parts of the alimentary canal where amylase is secreted. (2 marks)

.....

.....

8. a) Name **two** photochemical cells in human retina. (1 mark)

.....

.....

b) Name **one** chemical substance and two mineral ions involved in impulse transmission in mammals. (2 marks)

.....

.....

9. Give the function of melanin pigment produced in the skin of man. (1 mark)

.....

10. What is the importance of saprophytic bacteria in an ecosystem? (1 mark)

.....

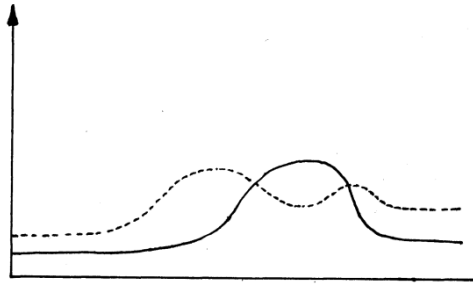
.....

11. A student while carrying out an experiment observed 8 cells across the field of view of light microscope. If the diameter of the field of view is 5 mm, calculate the average length of each cell in micrometers. (2 marks)

12. State **one** feature present in the flowers that can be used to distinguish between a monocotyledonous flower and dicotyledonous flower. (1 mark)

.....

13. The graph below shows levels of oestrogens and progesterone during the human menstrual cycle.
 a) Mark on the graph the curve that represents



i) Progesterone

.....

ii) Oestrogen

.....

b) Which is the most likely day of ovulation from the graph? (1 mark)

.....

14. a) What are fossils? (1 mark)

.....

.....

b) State **two** limitations of the use of fossils as an evidence of evolution. (2 marks)

.....

.....

15. Name the type of skeleton in:

i) Grasshopper (1 mark)

.....

ii) Sheep (1 mark)

.....

16. Name the type of response shown by;

a) Leaves of *Mimosa pudica* when they fold after being touched. (1 mark)

.....

b) Sperms when they swim towards ovum (1 mark)

.....

c) Euglena when they swim towards the source of light. (1 mark)

.....

17 a) Give an example of sex linked trait on x-chromosome. (1 mark)

.....

b) Below is a nucleotide strand. (1 mark)

A	A	G	T	C
---	---	---	---	---

i) Identify the type of nucleic acid strand. (1 mark)

.....

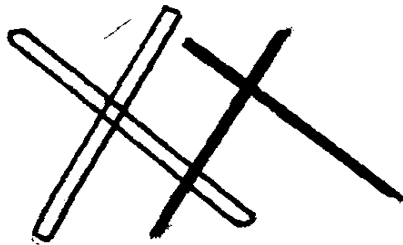
ii) Give your reason for your answer in (b) (i) above. (1 mark)

.....

iii) Write down the complimentary base sequence in the other strand. (1 mark)

.....

18. The diagram below shows a stage in cell division



i) Name the stage of the cell division that exhibits the process above. (1 mark)

.....

ii) What is the significance of the phenomenon shown to a species? (1 mark)

.....

.....

19. Differentiate between respiration and respiratory surface. (2 marks)

.....

.....

20. State **two** adaptations of skin of the frog to gaseous exchange. (2 marks)

.....

.....

a) A man's urine gave a positive reaction with Benedict's solution. Name the disease he was suffering from. (1 mark)

.....
.....

b) State **two** ways in which the symptoms of the condition in (a) can be controlled. (2 marks)

.....
.....

22. A student collected an organism in the school compound and noted it had a segmented body and two pairs of legs per body segment.

i) Name the class to which the organism belongs. (1 mark)

.....
.....

ii) State **two** other features the student may have observed. (2 marks)

.....
.....

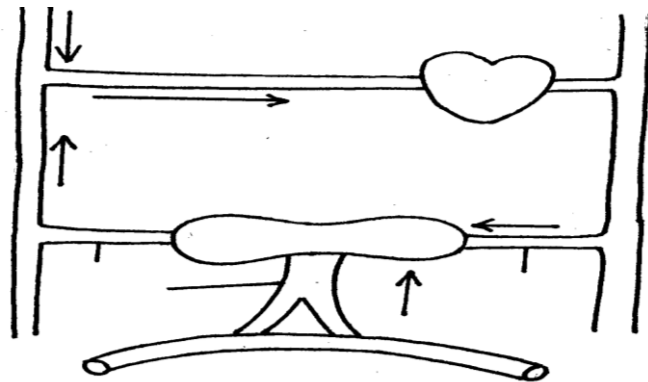
23 a) Name **two** structures of gaseous exchange in aquatic plants. (2 marks)

.....
.....

b) What is the effect of contraction of the diaphragm muscles during breathing in mammals? (2 marks)

.....
.....

24. The diagram below represents part of the mammalian blood circulatory system and some associated glands.



(a) Name the blood vessels **A** and **B** (2 marks)

.....
.....

(b) State **two** structural differences between the blood vessels labelled **A** and **C** (2 marks)

.....
.....

25. A student made equidistant marks on a radical of a dicotyledonous seedling. After three days the distance between the marks was measured.

a) What was the aim of the experiment? (1 mark)

.....
.....

b) Predict the results that were likely to be obtained by the student (2 marks)

.....
.....

26. a) Name the disease caused by H.I.V (1 mark)

.....

b) Give **two** reason why it is difficult to cure the disease named above. (2 marks)

.....
.....

c) Give **one** preventive measure of the named disease. (1 mark)

.....
.....

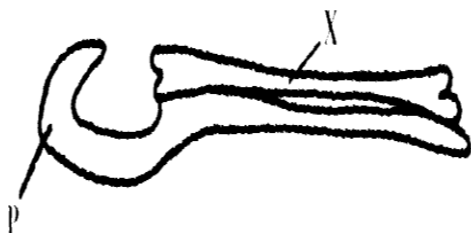
27. Plants of a particular species grown in certain habitat flower at the same time. What is the importance of this adaptation (1 mark)

.....
.....

28. State **two** roles played by the bark in plants (2 marks)

.....
.....

29. The diagram below represents a bone obtained from a mammal.



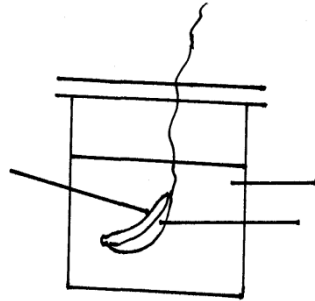
i) Name bone labelled **X**. (1 mark)

.....

ii) Name structure **P**. (1 mark)

.....

30. A student mashed a piece of ripe banana and made it into paste by adding water, place the paste in a visking tubing and suspended it in a beaker containing iodine solution as shown below. The set up was left for 40 minutes.



a) State the physiological process under investigation. (1 mark)

.....

.....

b) Account for the result obtained in the table. (2 marks)

.....

.....

.....

.....

31. Industrial waste may contain metallic pollutants. Explain how the pollutants may indirectly reach and accumulate in the human body when the wastes are dumped into rivers. (2 marks)

.....

.....

.....

.....

32. During oxidation of certain foods substances the respiratory quotient was found to be 0.718.

i) Name the type of food substance being oxidized. (1 mark)

.....

.....

ii) State **two** advantages of using the food substances named. (2 marks)

.....

.....

231/2
BIOLOGY
PAPER 2 FORM FOUR
(THEORY)
TIME: 2 HOURS

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

Biology
Paper 2
Theory

INSTRUCTIONS TO CANDIDATES:-

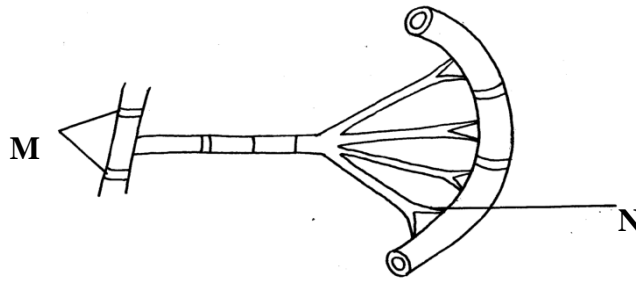
- Write your **name** and **index number** in the spaces provided above.
- Sign and write the **date** of examination in the spaces provided above.
- This paper consists of **two** sections; **A** and **B**.
- Answer **all** the questions in Section **A** in the spaces provided.
- In section **B**, answer question **6 (compulsory)** and either question **7** or **8** in the spaces provided after question 8.

For Examiner's Use Only:-

Section	Question	Maximum score	Candidates score
A	1	8	
	2	8	
	3	8	
	4	8	
	5	8	
B	6	20	
	7 or	20	
	8	20	
TOTAL SCORE		80	

This paper consists of 8 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.

1. The diagram below represents part of a cockroach gaseous exchange system.



a) State the function of the part labelled **M** (1 mark)

.....

b) Suggest how the part M is adapted to the gaseous exchange function (3 marks)

.....

.....

.....

c) How does the movement of oxygen in an insect and mammals from atmosphere to the tissue of its body differ (4marks)

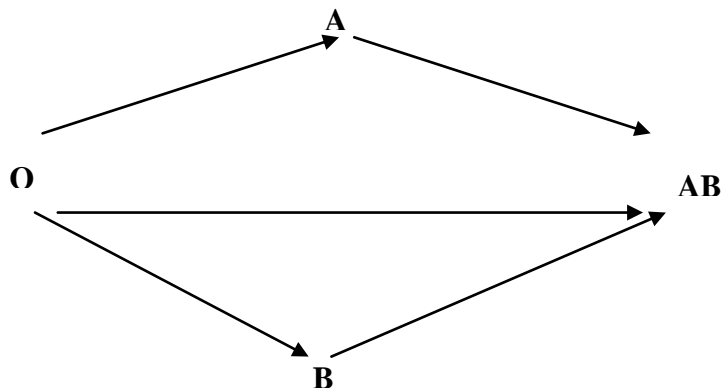
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.....

2. The following chart below shows blood transfusion pathway



a) What **five** conclusions can you draw from the flow chart (5marks)

.....

.....

.....

.....

.....
b) Why is the knowledge of blood groups necessary before blood transfusion? (1 mark)

.....
c) A part from knowledge of blood groups, state two precautions that must be observed during blood transfusion (2 marks)

.....
.....
3. The genetic disorder haemophilia is due to a recessive sex linked gene. A man who is haemophiliac married a woman who is a carrier for the condition.

a) Using letter (H) to represent normal condition and (h) to represent haemophiliac condition.

i) What is the genotype of the man and the woman? (2 marks)

Man _____

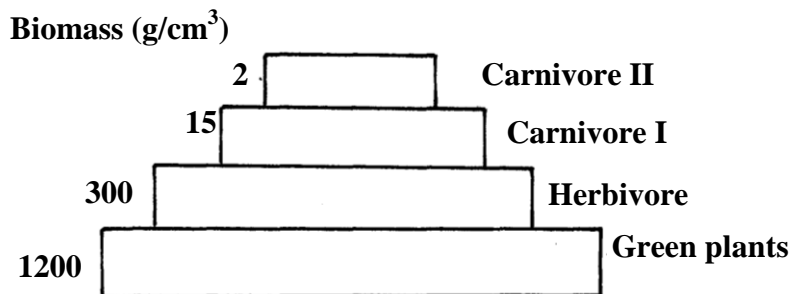
woman _____

ii) Work out across between the man and the woman (3marks)

b) What is the chances that both the first and the second sons will be haemophiliac? (2 marks)

.....
.....
c) Haemophilia is most common in the males than females humans. Explain. (1 mark)

.....
4. The diagram below shows different groups of organisms and their biomass.



a) Define the term biomass (2 marks)

b) Account for the decrease in biomass in the successive group of organisms (3 marks)

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

c) Describe how energy from the sun is made available for carnivore II (3 marks)

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

5. Cells of a certain herbaceous plant were found to have an average diameter of 2.5µm. The cells were put in varying concentrations of salt solutions. The average diameter of the cells in each solution was determined and the results were recorded as shown in the table below.

Concentration of salt solution %	Diameter of cells. µ m
1	5.0
5	4.0
10	3.0
15	2.0

a) From the results above, determine the cell sap concentration (1 mark)

.....

b) Give an explanation for the average diameter of the cells placed in the following salt concentration compared to the normal diameter of the cells.

i) 1 % salt solution (3 marks)

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

ii) 15 % salt solution (3 marks)

.....
.....

Give the term used to describe salt solution whose concentration is the same as cell sap. (1 mark)

.....

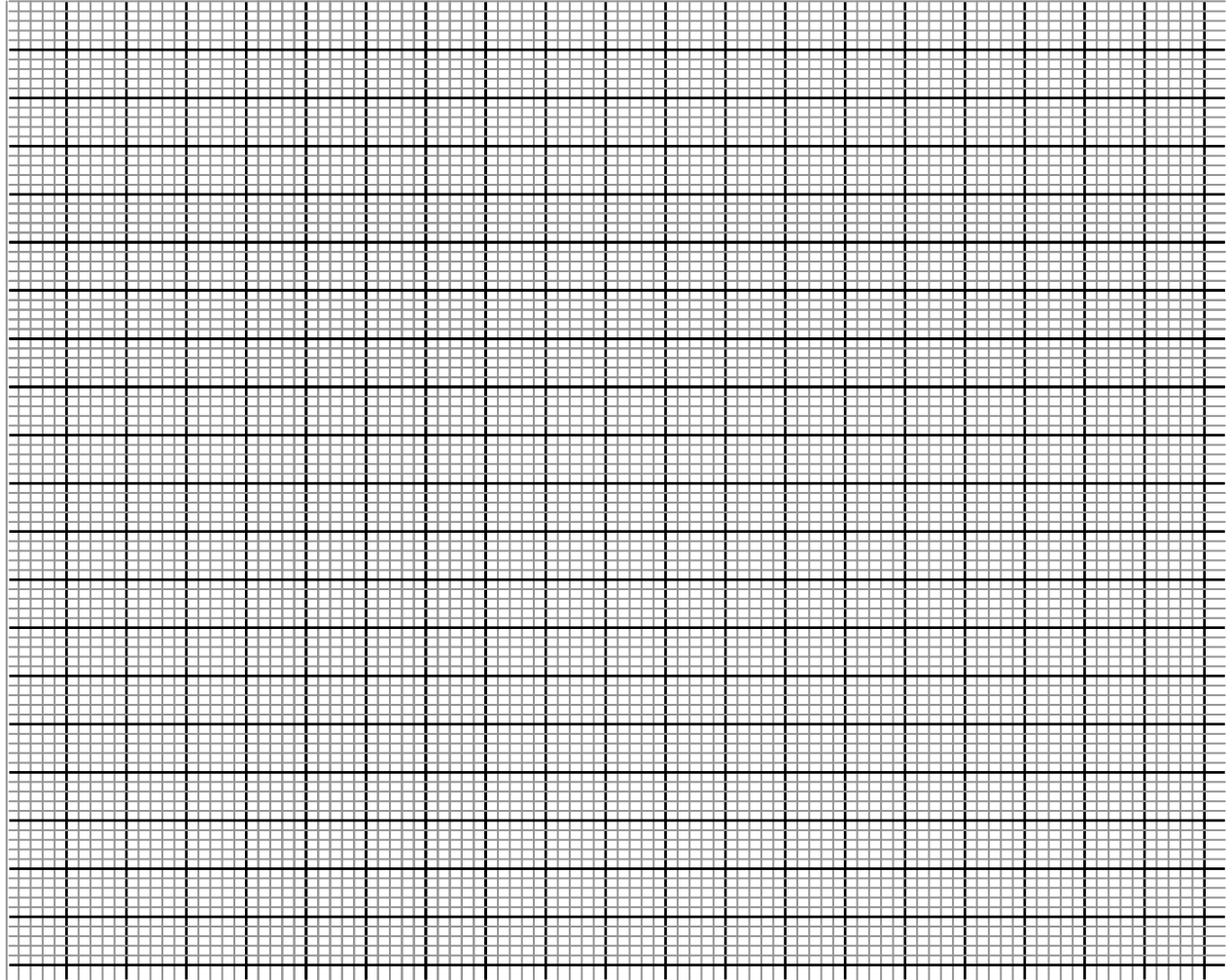
SECTION B (40 MARKS)

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

4. In the experiment, the population growth of yeast cells in a Petri dish was determined over a period of 75 minutes. The results below were obtained.

Time in minutes	Number of yeast cells
0	4
5	6
10	8
15	10
25	30
30	50
35	80
40	120
45	140
50	150
55	160
65	166
75	166

- a) Using a suitable scale, plot a graph of number of cells against time in minutes (6 marks)



b) Name the type of the curve you have drawn above (1 mark)

.....

c) Determine the number of yeast cells after 37 minutes (1 mark)

.....

d) After how long was the population of yeast cells 144? (1 mark)

.....

e) Work out the rate of cell division between 32 minute and 42 minute (2 marks)

.....

.....

.....

f) Account for the shape of graph between 45th minute and 60th minute (3 marks)

.....

.....

.....

g) In a field study to estimate the population of grasshoppers in the school field of 4 km², 60 grasshoppers were caught using sweep nets, marked with red paint and released back to the field. The following day students went back with their sweep nets and caught 100 grasshoppers, in which 20 were found to be already marked.

i) Calculate the population size of grasshoppers in the field (2 marks)

ii) Calculate the population density of the grasshoppers in the field (2 marks)

iii) What factors would maintain the population of grasshoppers and yeast cells at the carrying capacity. (2 marks)

.....
.....

7. Describe the various evidences to support organic evolution (20 marks)

8. a) Describe how the heart beat is controlled and maintained (10 marks)

b) Describe the structure and function of thrombocytes (10 marks)

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231/3
BIOLOGY
PAPER 3 FORM FOUR
(PRACTICAL)
TIME: 1 ¾ HOURS

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

Biology
Paper 3
Practical

INSTRUCTIONS TO CANDIDATES:-

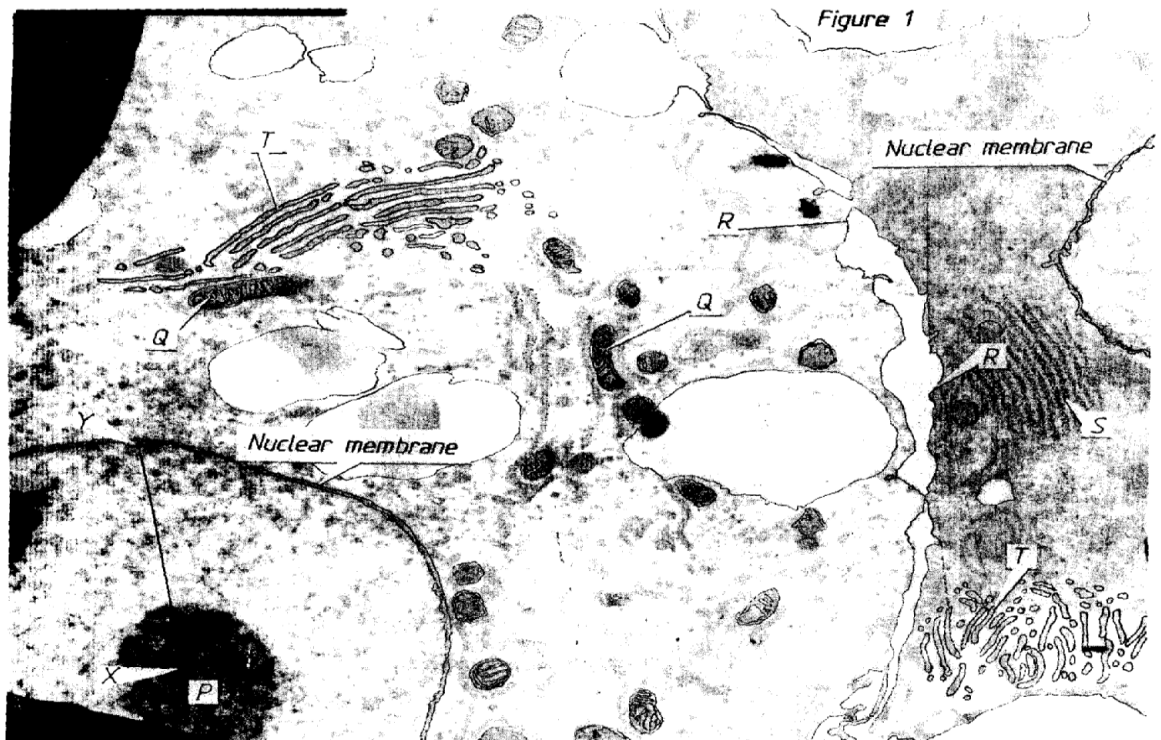
- Write your **name** and **index number** in the spaces provided.
- Sign and write the **date** of examination in the spaces provided above.
- Answer **all** questions in the spaces provided in the question paper.
- All workings **must** be clearly shown where necessary.
- Mathematical tables and silent electronic calculators may be used.
- You are required to spend the first 15 minutes of 1 ¾ hours allowed for this paper reading the whole paper before commencing your work.
- Candidates may be penalized for recording irrelevant information and incorrect spelling especially of technical terms.

For Examiner's Use Only

Question	Maximum scores	Candidates score
1	12	
2	12	
3	16	
TOTAL	40	

This paper consists of 7 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing and additional pages must not be inserted.

1. Figure 1 represents parts of two adjacent liver cells as seen under an electron microscope. Study the micrograph and answer the questions that follow.



- a) i) Name the organelles labeled P, R, T
(3 marks)
- P:
- R:
- T:
- ii) State one function of each of the organelles labelled Q and S.
(2 mark)
- Q:
.....
- S:
.....
- iii) The magnification of the cells in the micrographs is x20, 000. Use a ruler to measure the radius of the nucleus between points X and Y in millimeters

Radius of nucleus: mm

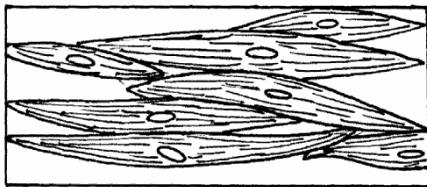
(1 mark)

iv) Calculate the actual radius of the nucleus before magnification in micrometers (μm)

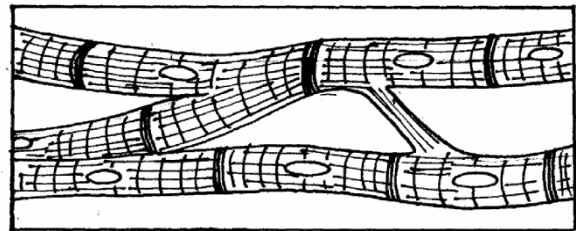
(1 mark)

Q:

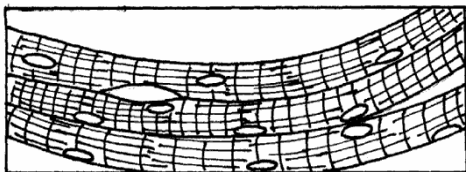
b) Figure 2 represents different types of muscles. Study them carefully and answer the questions that follows:



B



C



D

i) Identify the muscles labelled C and D

(2 marks)

C:

.....

...

D:

.....

ii) Using observable features only; state two differences between muscles labelled B and D.(2 marks)

iii) State one function of each of the muscles labelled B and C
(2 marks)

B:

.....
.....

C:

.....

iv) Give **one** adaptation of a muscle labelled C to its function.
(1 mark)

.....
...

2. You are provided with a specimen labelled K; 0.01% DCPIP and 0.1% Ascorbic acid.

a) Make a transverse cut through specimen K.

i) Draw and label one of the cut surfaces.

(4 marks)

ii) State type of fruit specimen K belongs.

(1 mark)

.....
.....

iii) Identify the type of placentation of specimen K.

(1 mark)

.....
.....

iv) Give a reason for your answer in (iv) above.

(1 mark)

.....
.....

b) Squeeze out juice from specimen k into the beaker. Filter and dispose the residue.

i) To 1ml of DCPIP in a test tube, add 0.1% Ascorbic acid drop by drop while shaking until DCPIP decolorizes. Record the number of drops used.

(1 marks)

.....
.....

ii) To another 1ml of DCPIP in a test tube, add 0.1% Ascorbic acid drop by drop by while shaking

until DCPIP decolourizes.the juice from specimen K drop by drop shaking the test tube each

drop added until DCPIP decolorizes. Record the number of drops used.

(1 mark)

iii) From the results obtained in b (i) and b (ii) above, calculate the percentage of Ascorbic acid in

which the juice obtained from specimen K.

Show your working.

(2 marks)

iv) Suggest **two** factors that may influence accuracy of the results above.

(2 marks)

.....
.....
.....
.....
3. You are provided with specimens labelled J, K, M, N and P.

Use observable features of the specimen and the Dichotomous key provided to identify the specimens.

Write down the steps followed to arrive at the correct identification of each specimen e.g. 1a, 2b, etc.

Dichotomous key:

- 1a Leaves simple.....go to 2
- 1b Leaves compound.....Aseraceae
- 2a Leaves parallel veined.....go to 3
- 2b Leaves net-work veined.....go to 4
- 3a Leaves greenPoaceae
- 3b Leaves purple.....Tradescantia
- 4a Leaf margin entire.....go to 5
- 4b Leaf margin serrated.....Malvaceae
- 5a Leaf surface hairy.....Solanaceae
- 5b Leave surface smooth.....Anacardiaceae

a)

Specimen	Steps followed	Identity
J		
K		
L		
N		
P		

b) i) State the type of plant from which leaf M was obtained.

(1 mar

.....
..

ii) Give a reason for your answer in (b) (i) above.

(1 mark)

PHYSICS
THEORY
PAPER 1
TIME: 2 HOURS

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

INSTRUCTIONS TO CANDIDATES

- Write your name and index number in the spaces provided.
- Mathematical tables and non-programmable calculators may be used.
- This paper consists of section A and section B.
- Attempt all the questions in the spaces provided.
- ALLOW working MUST be clearly shown.

For Examiners Use

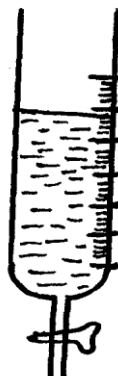
SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1 – 12	25	
B	13	11	
	14	12	
	15	10	
	16	10	
	17	18	

	TOTAL	80	
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This paper consists of 9 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.

SECTION A (25 MARKS)

1. The figure below shows the reading on a burette after 65 drops of a liquid have been used.



If the initial reading was at zero mark determine the volume of one drop in m^3

(2mks)

2. State **two** factors that affect the spring constant of a spring made using a wire of a certain and a given thickness.

(2mks)

.....

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.....

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3. A cart of mass 60kg is pushed along a horizontal path by a horizontal force of 12N and moves with a constant velocity. The force is then increased to 18N. determine

(a) The resistance to the motion of the cart.

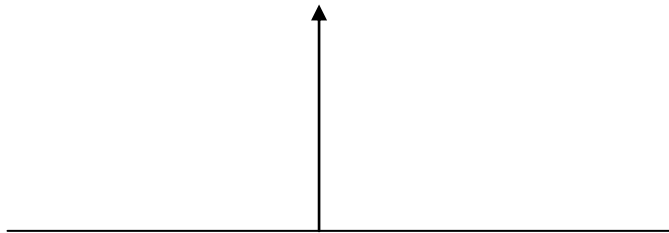
(1mk)

(b) The acceleration of the cart.

(2mks)

4. A mass of ice at -20°C is heated up to 10°C on the axis provided sketch the variation of volume up to 10°C .

(1mk)



5. Water is pumped through a hose pipe at the rate of 120kg/minute and comes out from the nozzle with a velocity of 20m/s . Find the power of the pump.

(2mks)

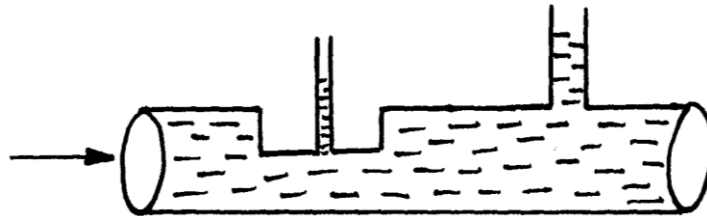
6. A sphere of mass 3kg moving with a velocity of 4m/s collides head on with a stationary sphere of mass 1.5kg and imparts to it a velocity of 3.2m/s . Calculate the velocity of the 3kg sphere after collision.

(

3mks)

7. In an experiment the diameter d of an oil patch was measured to be 210mm for an oil drop of radius 0.21mm Determine the size of the oil molecule. (Take $\pi = \frac{22}{7}$)
 (3mks)

8. The figure below shows a horizontal tube fitted with two other vertical pipes x and Y. water flows from left to right. Explain why the level of water in tube Y is lower than the level in tube x (2mks)



.....

9. Use Kinetic theory of gases to explain pressure law.
 (2mks)

.....

10. A pin floats on water surface. Other than adding soap and taping the pin, state another method that can be used in the set up to make the pin sink.

(1mk)

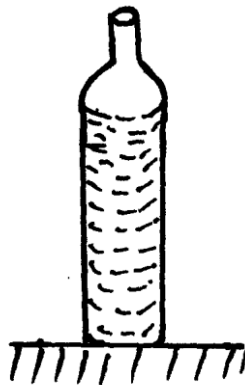
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11. In vacuum flask, the walls enclosing the vacuum are silvered on the inside. State the reason. (1mk)

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12. The figure below shows a soda bottle that is full. Explain how the stability of the bottle is affected as the soda is drunk three – quarter way.

(2mks)



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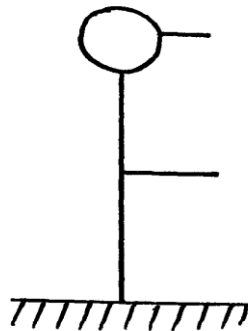
13. Explain why deflating the tyres of a motor vehicle reduces the extent of sinking of the wheel into a soft ground.

(1mk)

.....

SECTION B (55 MARKS)

14. (a) A hot air balloon is tethered to the ground on a windless day as shown in the figure below. The balloon contains 1600m^3 of hot air of density 0.7 kg/m^3 . The mass of the balloon fabric is 400kg and the density of surrounding air is 1.3kg/m^3



Calculate

(i) The tension in the rope.

(4mks)

(ii) Acceleration with which the balloon begins to rise when the rope is cut.

(3mks)

(b) A rod of cross section area 3cm^2 length 0.16m floats vertically upwards in a liquid of density 1.1 g/cm^3 with its length of 7cm above the surface. Determine

(i) Mass of the rod.

(2mks)

(ii) The depth to which it will be submerged if put in a liquid of density 0.8g/cm^3
(2mks)

15 (a) State the pressure law.

(1mk)

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(b) The pressure P of a fixed mass of gas at constant temperature ($T = 300\text{k}$) is varied continuously. The corresponding values of P and (V) of the gas are shown below.

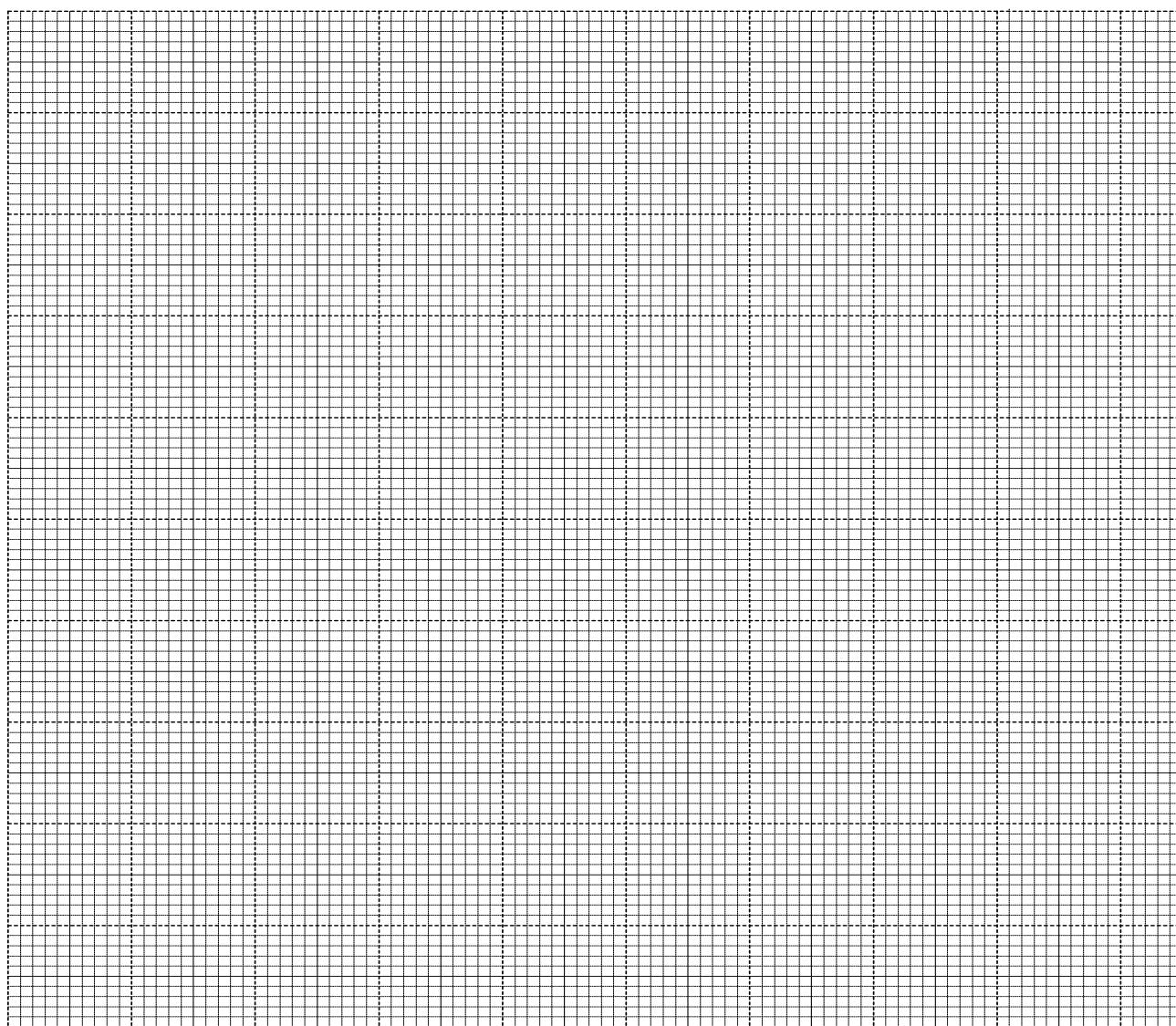
Pressure ($\times 10^5 \text{pa}$)	3	3.5	4	4.5	5	5.5
Volume (m^3)	0.025	0.020	0.017	0.014	0.012	0.011
$\frac{P}{V}$ (m^{-3})						

(i) Complete the table for the values of $\frac{P}{V}$
(2mks)

$\frac{P}{V}$

(ii) Plot a graph of P against $\frac{P}{V}$

(4mks)



(iii) Given that $P = \frac{3PT}{V}$ find R from the graph
(3mks)

(c) A container closed with an airtight lid contains air at 1.2×10^5 Pa and temperature of 32°C . The container is heated in water both until the lid opens. If the temperature at which the lid opens is 92°C , Calculate the pressures attend by the gas.
(2mks)

16. (a) Define Centripetal force.
(1mk)

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.....

(d) An object of mass 0.5 kg is attached to one end of a light in extensible string and whirled up in a vertical circle of radius 1m and centre) as shown.

(i) If the tension on the string when the object is at the lower point A is 13.0N. Calculate the velocity V of the object.
(4mks)

- (ii) Tension on the string when the object is at the highest point C of the circle.
(3mks)
- (iii) If the string was to break when the object is at the lowest point A of the path sketch the traced path by the object until it hits the ground.
(3mks)

17 (a) A drinking glass of mass 0.4kg contains 400g of water at 20°C. 0.02kg of ice 0°C is dropped into the glass determine.

- (i) The quantity of heat lost by the glass and water .
(3mks)

- (ii) The quantity of heat gained by the ice and water.
(2mks)

(iii) The final temperature of the mixture.

(2mks)

(Take specific heat capacity of glass = 670J/kg/K , Latent heat of fusion of ice = $3.34 \times 10^5\text{J/kg}$ specific heat capacity of water = $4.2 \times 10^3\text{JKg}^{-1}\text{K}^{-1}$)

(b) (i) Distinguish between streamline flow and turbulent flow.

(2mks)

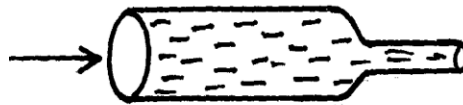
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(ii) A boat travelling at a very high speed is likely to be dragged into a ship travelling in the opposite direction at high speed. Explain this observation.

(1mk)

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.....

(iv) The figure below shows a non-viscous fluid that is not compressible moving through a tube of varied cross-sectional area



If the area of the narrower end is 0.05m^2 . calculate the diameter of the wider region.

18 (a) A bicycle has a driving cog wheel of radius 10cm and 24 teeth. The driven rear cog wheel has a

radius of 40cm and 8 teeth . Determine

(i) The velocity ratio.

(2mks)

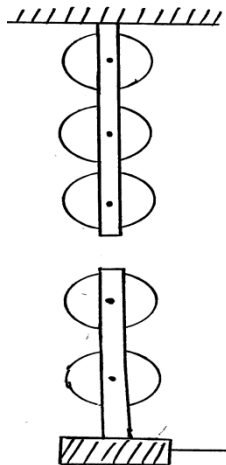
(ii) the re efficiency

(2mks)

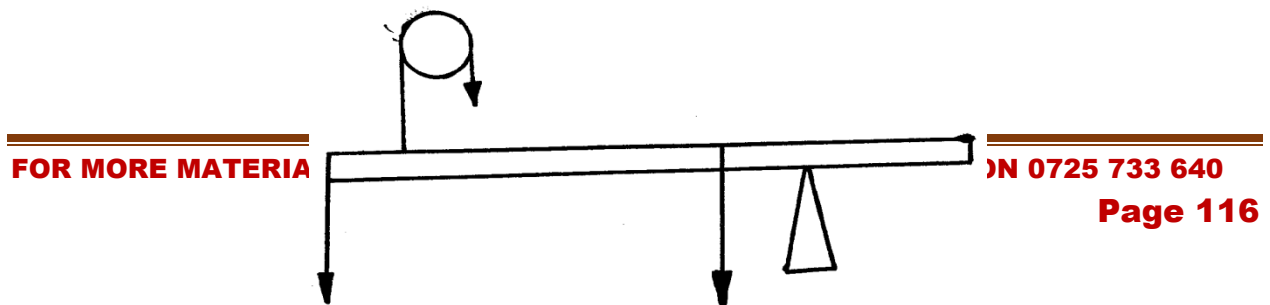
(iii) Draw the string over the block and tackle pulley system below and indicate the direction of

the effort (E)

(2mks)



(b) (i) A wooden plank of negligible weight and 80cm long is supported by a knife edge at P. weights of 2N,4N, F and 8N act as shown.



(i) Calculate the value of F (3mks)

(ii) The moment of the weight of a vertical door does not significantly affect the moment of the force required to open the door. Give a reason for the this.

(1mk)

232/2

PHYSICS

PAPER 2 FORM FOUR

TIME: 2 HOURS.

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

INSTRUCTIONS TO CANDIDATES

- Write your name and your index number in the spaces provided above.
- This paper consists of **two** sections **A** and **B**
- Answer **all** questions in section **A** and **B** in the space provided
- All working **must** be shown in the spaces provided in this booklet.
- Mathematical tables and silent electronic calculators may be used
- This paper consists of 8 printed pages. Candidates should check to ensure that all pages are printed as indicated and no questions are missing

FOR OFFICIAL USE

Section	Question	Max. score	Candidate's score
A	1-13	25	
B	14	12	
	15	14	
	16	09	
	17	10	
	18	10	
TOTAL SCORE		80	

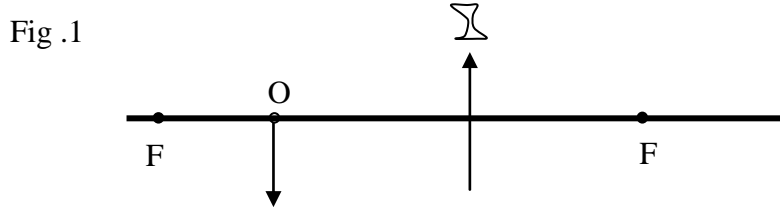
SECTION A(25 MARKS)

Answer all the questions in the spaces provided.

1. State two factors that affect the capacitance of a parallel plate capacitor.
(2marks)

.....
.....

2. The figure1. Shows an object, O placed in front of a concave lens.
By drawing appropriate rays, locate the image formed.
(3marks)



3. Kenya power sells electricity at ksh. 10 per unit. What is the cost of using an electric heater rated 1500w for a total of 30 hours.
(3marks)

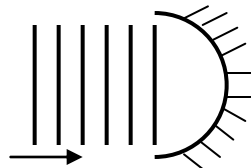
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4. You are provided with resistors of 2.0Ω , 4.0Ω and 6.0Ω . Draw a circuit diagram to show how the three resistors can be connected together to give an effective resistance of 3Ω .
(2marks)

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.....

5. Figure 2 shows wave fronts approaching a concave surface

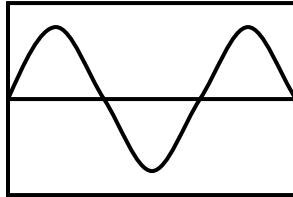
Fig. 2



Complete the diagram to show the wave fronts after striking the surface
(2marks)

6. Figure 3. Shows the pattern produced by an a.c voltage on a cathode ray oscilloscope screen.

Fig .3



On the same diagram sketch the pattern produced by the same voltage when the time base is switched off.

(1mark)

7. State one difference between electromagnetic and mechanical waves.

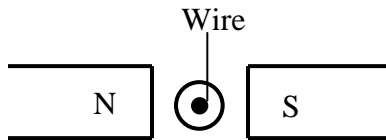
(1mark)

.....

8. A wire carrying current is placed in the direction shown is placed in a magnetic field. Indicate on the diagram the direction of the force.

(1mark)

Fig . 4



9. When ultraviolet radiation is directed into a clean zinc plate connected to the cap of a negatively charged leaf electroscope, the leaf falls. Explain this observation.

(2marks)

.....

10. An electric bulb is rated 75w, 240v, determine the resistance of the bulb.

(3marks)

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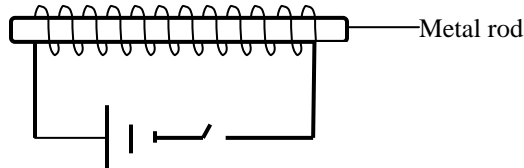
11. A man standing 600m from a cliff claps his hands and hears an echo 3 seconds later. Determine the speed of the sound in air.

(2marks)

12. A metal rod made up of iron and steel joined end to end is put in a circuit as shown in figure 5.

Explain how you can identify the side which is iron.
(2marks)

Fig. 5



.....
.....

13. Explain how polarization reduces current in a simple cell.
(1mark)

.....
.....

SECTION B (50 MARKS)

Answer all the question in this section

14. a) State Lenz's law of electromagnetic induction.
(1mark)

.....
.....

b) The secondary coils of a step down transformer has 500 turns and primary has 15000turns
i) If the voltage in primary is 3600vfind the voltage in secondary.
(2marks)

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

ii) If the current in primary is 3.0A find the current in secondary.
(2marks)

.....

A generator at kindaruma can supply 375MW of electric power. If the generator is 85% efficient. Find

i) The rate which falling water must supply energy to the turbine.
(3marks)

.....

ii) If the water falls a height of 22m what is the mass of the water that passes through the turbine each second.
(2marks)

.....
.....

c) Explain how energy loss in a transformer is minimised.
(2marks)

.....
.....

15.

a) What is photoelectric effect?
(1mark)

.....
.....

b) Name two factors that affect photoelectric effect.
(2marks)

.....
.....

c) The threshold frequency of sodium is $5.6 \times 10^{14} \text{ Hz}$.Planks constant= $6.6 \times 10^{-34} \text{ Js}$.Find

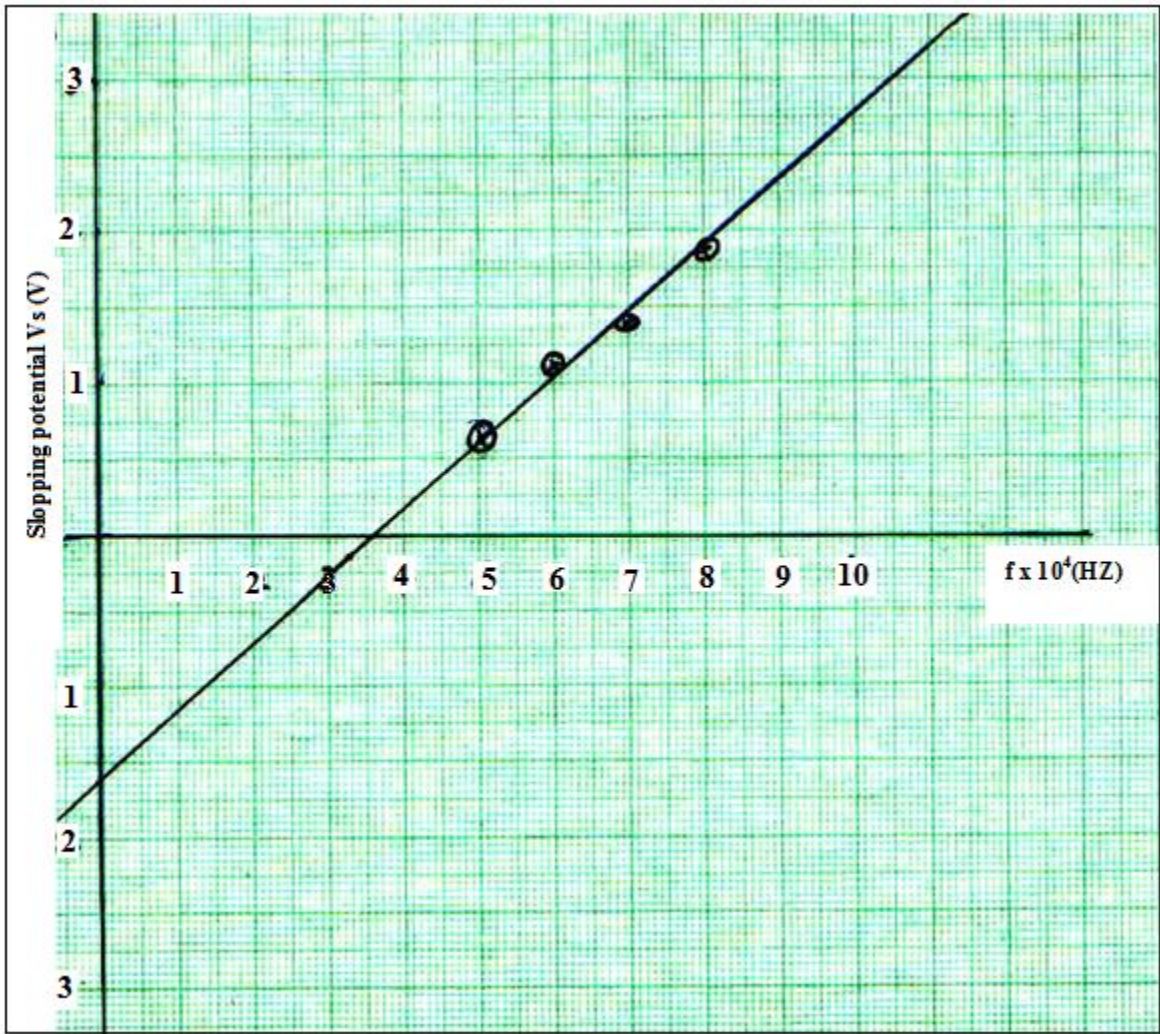
i) Work function of sodium
(2marks)

.....

ii) The kinetic energy of the ejected electrons when sodium is shone with light of frequency $8.6 \times 10^{14} \text{ Hz}$

.....
.....

- d) A certain metal is illuminated with radiation of different frequencies and corresponding stopping potential determined. The graph below shows how the stopping potential vary with frequency. Electronic charge, $e=1.6 \times 10^{-19}$.



Using the graph determine

- i) Planks constant.
(3marks)

.....
.....

- ii) Work function of the metal
(3marks)

.....
.....

16.

- a. State ohms law
(1mark)

.....
.....

- b. A battery of Emf E drives a current of 0.25A when connected to a 5.5Ω resistor. When the 5.5Ω resistor is replaced with 2.5Ω resistor the current flowing becomes 0.5A . Find the emf, E and the internal resistance, r , of the battery.
(4marks)

.....

- c) A capacitor of capacitance $6\mu\text{F}$ capacitor is charged using a 6v d.c source. It is then connected across a $12\mu\text{F}$ capacitor. Find :-

- i) Final voltage
(2marks)

.....
.....

- ii) Charge stored in each capacitor
(2marks)

.....
.....

17.

- a) State Snell's law
(1mark)

.....
.....

- b) A ray of light travelling from water to glass makes an angle of incident of 30° . Find the angle of refraction in the glass. Refractive index of water $=\frac{4}{3}$. Refractive index of glass $=\frac{3}{2}$
(3marks)

.....

- c) State the necessary and sufficient conditions for total internal reflection to occur.
(2marks)

.....
.....

- d) You are provided with a glass block, a soft board, white sheet of paper and three optical pins. With the help of a diagram explain how you would use these apparatus to determine the

refractive index of the glass block using real and apparent depth method.
(4marks)

.....

18. a) ${}_{88}^{226}\text{Ra}$ decays into ${}_{86}^{222}\text{Rn}$ by emission of an alpha particle. Write a nuclear equation for the decay
(2marks)

b)

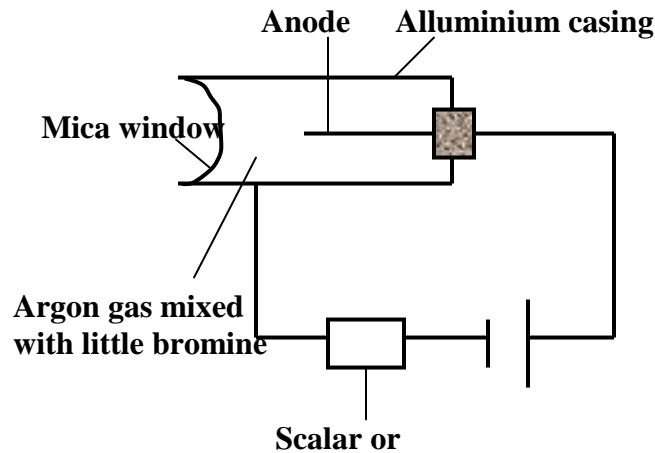
i) What do you understand by the term half-life of a radioactive substance.
(1mark)

.....

ii) A G.M tube registers an initial count rate of 3200 counts for a certain substance and 100 counts 30 hours later. What is the half-life of this substance.
(3marks)

.....

The figure below shows a G.M tube.



i) What is the purpose of the mica window?
(1mark)

.....

.....

.....

ii) What is the purpose of the bromine
(1mark)

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.....
.....

iii) Briefly explain how it works.

(2marks)

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232/3
PHYSICS
PAPER 3
CONFIDENTIALS.

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS *CONFIDENTIALS*

Question 1

EACH STUDENT REQUIRES

- ✓ Micrometer screw gauge (shared between 4 students)
- ✓ Vernier callipers
- ✓ Masses
 - ◆ 10g
 - ◆ 2 – 20g
 - ◆ 50g
 - ◆ 100g
- ✓ Helical spring ($K = 0.08\text{N/cm}$)
- ✓ Metre rule or half metre rule
- ✓ Complete retort stand

Question 2

- ✓ 2 plain papers (photocopy papers)
- ✓ 5 optical pins
- ✓ Glass block
- ✓ Softboard
- ✓ 4 thumb pins
- ✓ Triangular prism ($60^\circ \times 60^\circ \times 60^\circ$)

232/3
PHYSICS
PAPER 3
PRACTICAL
TIME: 2 ¼ HOURS

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

INSTRUCTIONS TO CANDIDATES

- Write **your name** and **index number** in the spaces provided
- Answer **ALL** the questions in the spaces provided in the question paper.
- You are supposed to spend the first 15 minutes of the 2 ¼ hours allowed for this paper reading the whole paper carefully before commencing your work.
- Marks are given for clear record of observations made, their suitability, accuracy and the use made of them.
- Candidates are advised to record their observations as soon as they are made.
- **Non-programmable** silent electronic calculators and KNEC mathematical table may be used.
- This paper consists of 6 printed pages. Candidates should check to ensure that all pages are printed as indicated and no questions are missing

FOR EXAMINER'S USE ONLY

Question 1

	a	b	c	D	f	g	h	i
maxmum score	1	1	1	2	6	4	2	3
Candidate's scores								

Question 2

	b(i)	b(ii)	e	F	g	h
maxmum score	2	2	6	5	2	3
Candidate's scores						

Question 1

You are provided with the following:-

- Vernier callipers
- Micrometer screw gauge
- Masses; 10g, 20g, 50g and 100g
- A helical spring
- Metre rule or half metre rule

Proceed as follows

- (a) Determine the number of complete turns of the helical spring.

$N =$ _____ (1 Mark)

- (b) Measure the external diameter of the spring using the vernier callipers

$D =$ _____ m (1 Mark)

- (c) Use the micrometer screw gauge to determine the diameter of the wire of the spring.

$d =$ _____ m (1 Mark)

- (d) Determine the value of m

(2 Marks)
 $N = \frac{0.4D}{dm}$

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- (e) Suspend the helical spring vertically alongside the clamped half metre rule as shown in figure 1 below. Determine the length L_0 , of the spring before loading it.

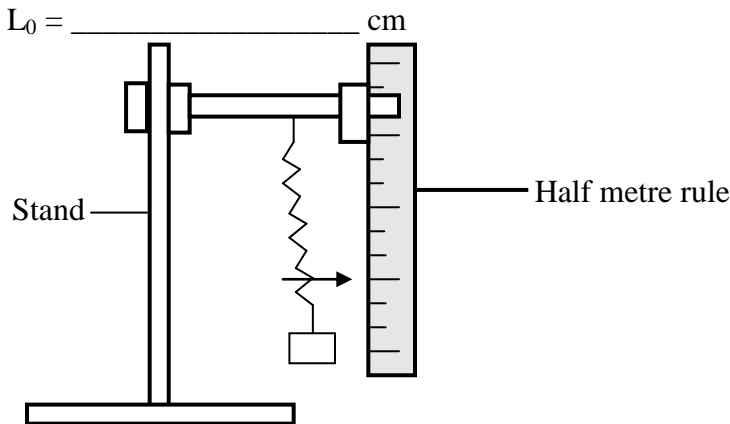


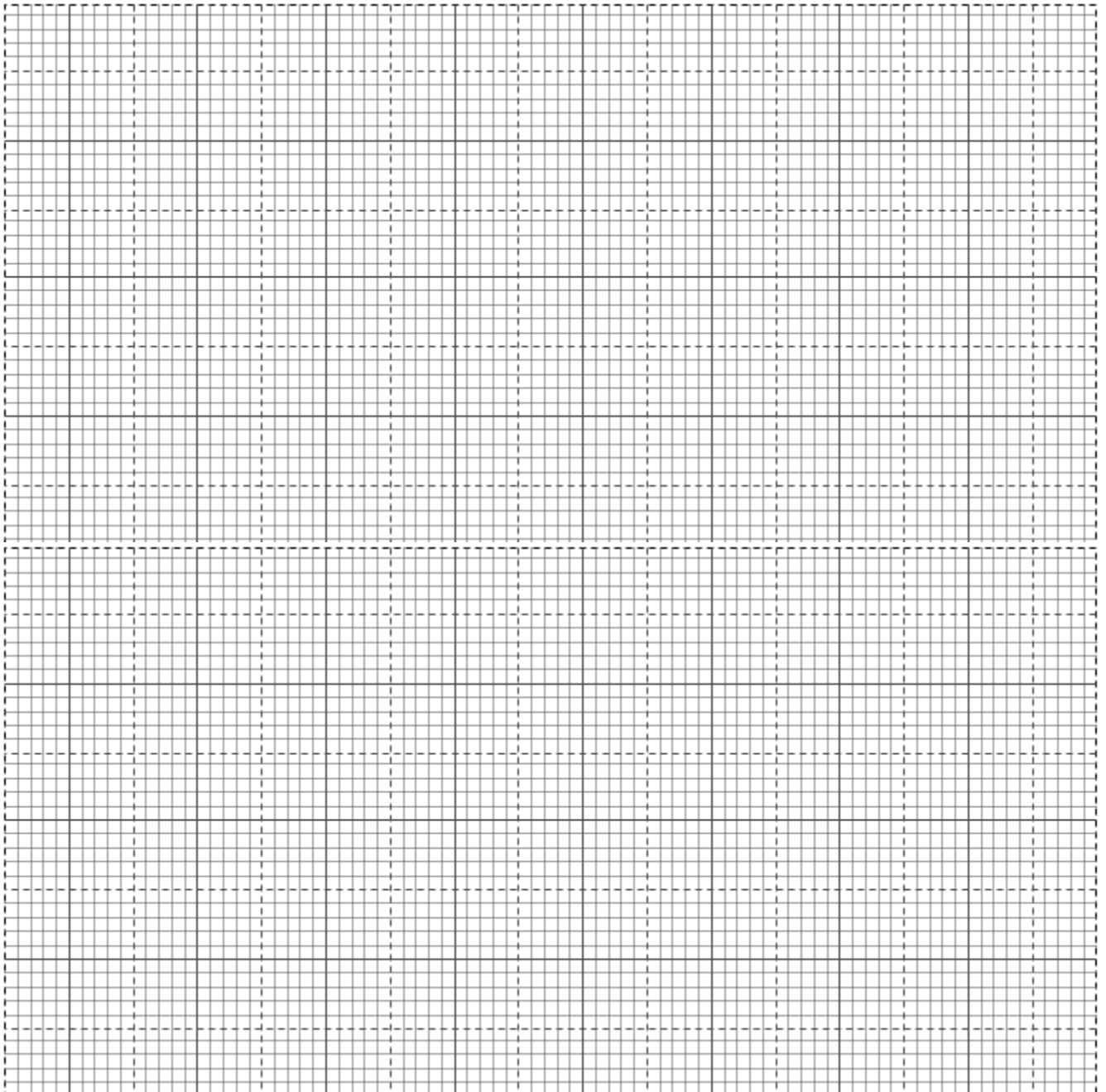
Figure 1

- (f) Load the spring with a mass of 20g and determine the new reading on the metre rule. (L)
 Record this in the table below.
 Calculate the extension $e = L - L_0$ due to the mass of 20g and record the value in the table
 given below. Repeat step f for other masses and complete the table.

Mass (g)	0	10	20	30	40	50	60	70	80	90	100
Weight (N)											
Reading (L) (cm)											
Extension e (cm)											
$\frac{1}{e}$ (cm ⁻¹)											

(6 Marks)

- (g) Plot a graph of weight (N) against $\frac{1}{e}$ (cm⁻¹)
 (4 Marks)



(h) Determine the slope (s) of the graph at a mass of 45g
(2 Marks)

.....

(i) Given that $m = \frac{-255T}{(S+60)^2}$
 Determine the value of T where (S) is the slope at 45g
(3 Marks)

.....

2. This question consists of two parts A and B attempt both parts.

PART A

You are provided with the following:

- 5 optical pins
- A glass block
- A plain paper
- A soft board
- 4 thumb pins

Proceed as follows:

(a) Fix the white piece of paper on softboard using the thumb pins provided. Place the glass slab on the white paper and draw the outline of the block on the paper. Remove the block and indicate the sides ABC and D as shown. On side BC determine the centres of side BC using your ruler and fix pin P₀ as shown. Looking from one side at the opposite end of the slab fix pin P₁, P₂ so that they are in with the image I of P₀. On the other side locate the same image using pins P₃ and P₄ as shown in figure 2. Remove the glass block and produce lines P₁, P₂ and P₃, P₄ to their points of intersection which is the position of the image I.

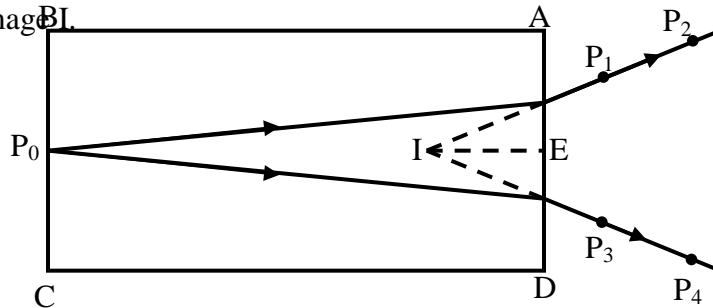


Figure 2

(b) (i) Using the half metre rule measure the lengths

$EP_0 = \underline{\hspace{2cm}}$ cm

(1 Mark)

$EI = \underline{\hspace{2cm}}$ cm

(1 Mark)

(ii) Work out the ratio $n = \frac{EP_0}{EI}$ (2 d.p)

(1 Mark)

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.....

.....

.....

(iii) What does n represent?

(1 Mark)

.....

.....

...

Part B

You are provided with the following.

- A plain sheet of paper
- A soft board
- 4 optical pins
- 4 thumb pins
- A triangular prism

Proceed as follows

(c) (i) Firmly fix the plain sheet of paper on the softboard using the thumb pins and place the prism near the centre of the paper. Trace the outline of the prism using a pencil.

(ii) Remove the prism from the outline and label the vertices of the outline PQ and R.

On the side QR mark a point and draw a normal OZ at this point. Measure an angle of 20° from

the normal and draw a line as shown in figure 3.

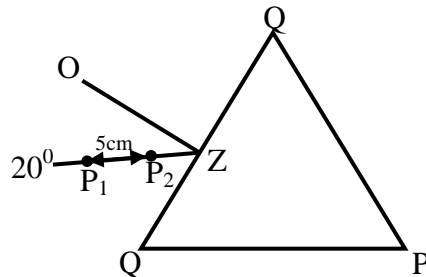


Figure 3

(d) Replace the prism on the outline and fix pins P_1 and P_2 on the 20° line at a distance of 3cm from each other.

View the images of the pins P_1 and P_2 through side PR and fix other pins P_3 and P_4 so that all the pins appear on one line. Remove the prism and draw a line to pass through the holes made by pins P_3 and P_4 extend the line into the outline as shown in figure 3. Also extend the 20° line so that the two lines cross each other. Determine angle θ and record in the table below.

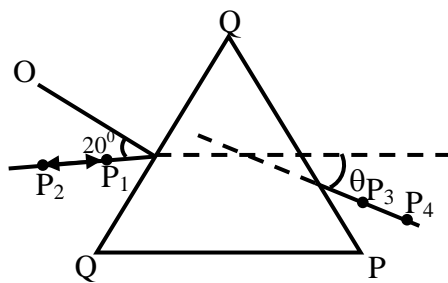
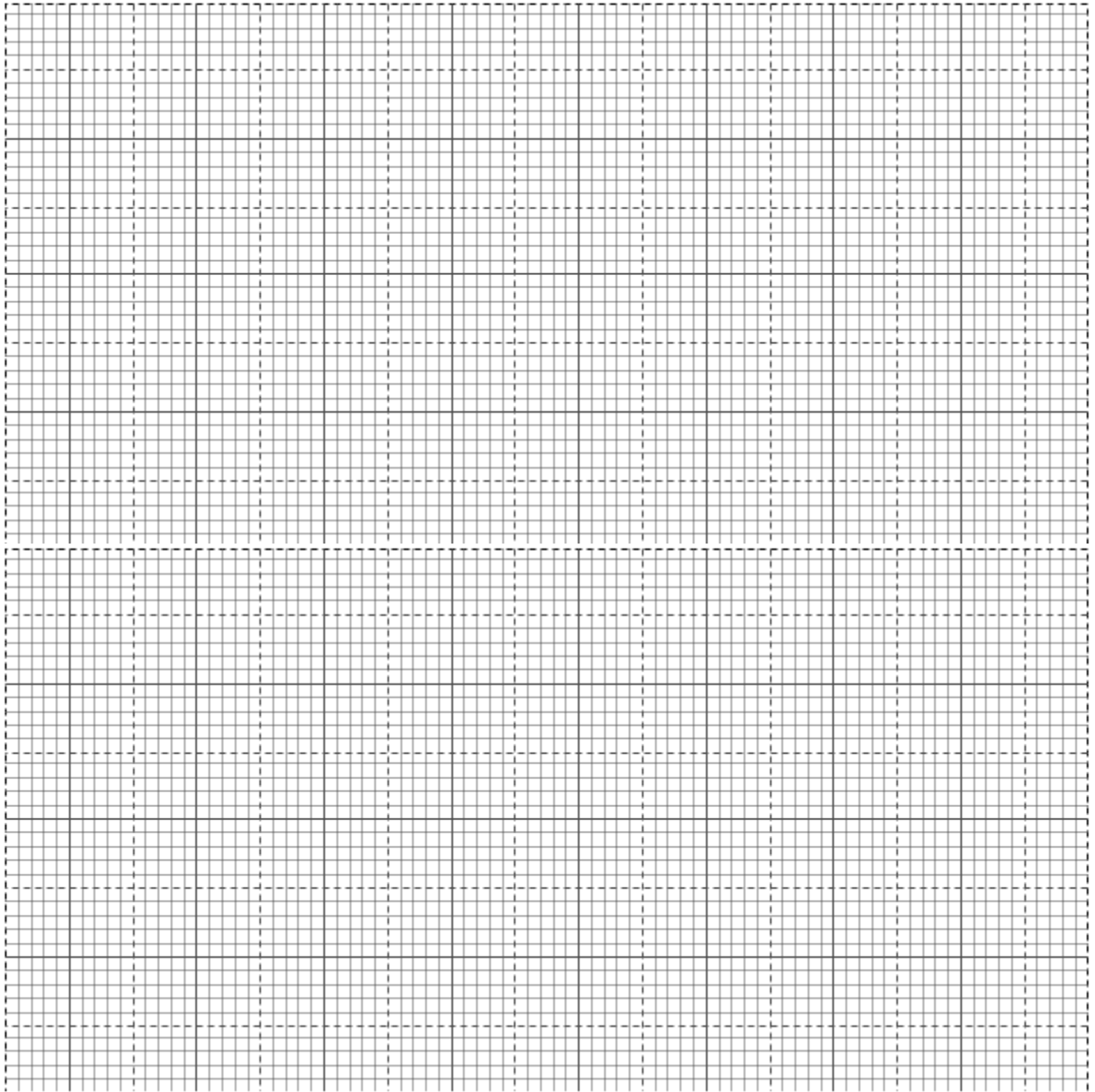


Figure 4

(e) Repeat the procedure and complete the table below.

Angle I ($^\circ$)	20	30	40	50	60	70
Angle θ						

(f) On the grid provided plot a graph of angle θ against angle i
(5 Marks)



(g) Use your graph to determine the highest value H_{\max} of angle θ $H_{\max} =$
(2 Marks)

.....
.....

.....
.....

(h) Determine the constant R for the glass prism from the formula.

(3 Marks)

$$R = \frac{\cos 40}{\sin^2 \left(16 + \frac{H_{max}}{3}\right)}$$

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312/1
GEOGRAPHY
PAPER 1
TIME: 2 ¾ HOURS

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

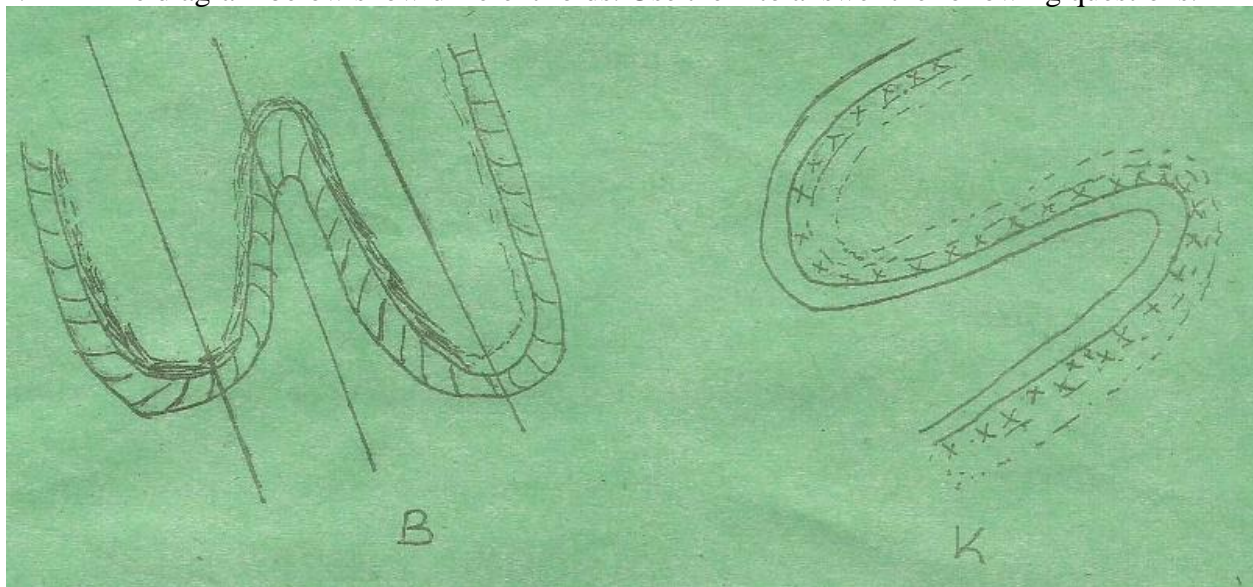
INSTRUCTIONS TO CANDIDATES:

- (a) This paper has two sections A and B.
- (b) Answer ALL questions in Section A. in section B answer question 6 and any other two questions.
- (c) All answers to be written on the answer booklet provided.

SECTION A(25 MARKS)

Answer all the Questions in this section

1. The diagram below show different folds. Use them to answer the following questions.



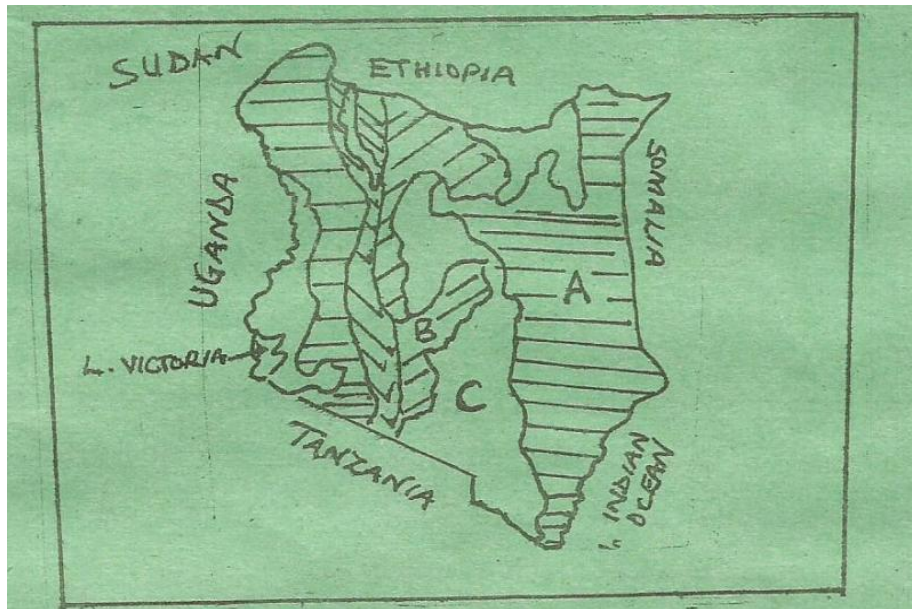
- (a) Name the folds labeled k and B. (2mks)
- (b) Explain how fold K is formed. (3mks)
2. (a) What is a lunar day? (2mks)
- (b) Describe the formation of neap tides. (3mks)
3. (a) Give two reasons why there are no ice sheets in Kenya. (2mks)
- b) Describe how an arête is formed. (3mks)
4. (a) State three conditions necessary for the development of karst scenery. (3mks)
- (b) Give two reasons why there are a few settlements in karst landscape. (2mks)
5. (a) Name the temperate grasslands found in the following counties:
- (i) Canada (1mk)
- (ii) Russia (1mk)
- (iii) Australia (1mk)
- (b) State two characteristics of temperate grasslands. (2mks)

SECTION B

Answer questions 6 and any other two questions in this section

6. (a) Study the map of Karatina (1:50,000) provided and answer the questions that follow.
- (i) Convert the ratio scale of the map extract into a statement scale (2mks)
- (ii) Give the latitude and longitude of karatina town. (2mks)
- (iii) What is the length in kilometers of the regional boundary from grid 9545 to grid 0053? (2mks)
- (b) i) Using a vertical scale of 1cm to represent 100 meters, draw a cross-section along the northing 90 from point 900510 to point 960550. (4mks)
- ii) On the cross-section, mark and label the following: (4mks)
- All weather loose surface road
 - River Ruachingani
 - All weather road bound surface
 - A water Reservoir
- (iii) Calculate the vertical exaggeration of the cross-section (2mks)
- (c) Describe the drainage of the area covered by the map. (5mks)
- (d) Citing evidence form the map, give four human activities being carried out in the area covered by the map. (4mks)
7. (a) (i) Name any three types of faults (3mks)
- (ii) Apart from Rift Valley name two other resultant features of faulting. (2mks)
- (b) (i) With the aid of well labeled diagrams, explain how tensional forces can lead to the formation of a Rift Valley. (7 mks)
- (c) Explain five ways in which features resulting from faulting are of economic importance. (10mks)

8. (a) Differentiate between weather and climate (2mks)
 (b) State six importance of weather forecasting (6 mks)
 (c) (i) What is climate change? (2mks)
 (ii) State two human causes of climate change (4mks)
 (e) List five characteristics of Mediterranean climate (5mks)
 (f) Students are to carry out a field study in a desert environment.
 (i) State three objectives of the field study (3mks)
 (ii) Name three features they are likely to study. (3mks)
9. (a) Give two differences between an ocean and a sea. (2mks)
 (b) Explain two factors that cause:
 (i) Vertical movement of ocean water (4mks)
 (ii) Horizontal movement of ocean water (4mks)
 (d) describe how the following process of wave erosion occur:
 (i) corrosion (3mks)
 (ii) solution (2mks)
 (iii) attrition (3mks)
- (d) State three ways in which coastal features are of significance to human activities. (3mks)
 (e) State four conditions which favor the growth of coral polyps. (4mks)
10. (a) Define the term rock (2mks)
 (b) Describe how coral rocks are formed (5mks)
 (c) The sketch map of Kenya below shows the distribution of major rocks.



- (ii) Name the three types of rocks labeled A, B, C. (3mks)

- (iii) State changes that occur in sedimentary rock when they are subjected to intense heat and pressure. (5mks)
- (d) You carried out a field study on the relationship between rocks and soils around your school.
 - (i) State any three hypothesis about your study. (3mks)
 - (ii) State the methods you would use for data collection (3mks)
 - (iii) State problems you are likely to experience during field work. (4mks)

312/2
GEOGRAPHY
PAPER 2
TIME: 2 3/4 HOURS

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

INSTRUCTIONS TO CANDIDATES

- This contains **two** sections **A** and **B**.
- Answer all questions in section **A**, In section **B** questions **6** and **two** other question.
- All answers must be written in the booklet provided

SECTION A

Answer all questions from this section in the answer booklet provided

1. (a) Name **two** international airports in Kenya.
(2mks)
(b) Give **three** advantages of using mobile phones.
(3mks)
2. (a) Apart from flooding name **two** climatic hazards that occur in Kenya.
(2mks)
(b) State **three** measures used to control floods in Kenya.
(3mks)
3. (a) What is a cottage industry?
(2mks)
(b) Give **four** reasons why the government of Kenya encourages the establishment of Jua Kali industries.
(4mks)

4. (a) Name **two** exotic breeds of commercial beef cattle reared in Kenya.
(2mks)
- (b) Outline **two** similarities of commercial beef cattle in Kenya and Argentina.
(2mks)
5. (a) What is mixed farming?
(2mks)
- (c) State **three** physical conditions that favour cocoa growing in Ghana.
(3mks)

SECTIONS B

Answer questions 6 and any other two questions from this section in the answer booklet provided.

Study the photographs provided and use it to answer the following.

6. (a) Name the type of photograph shown above.
(2mks)



- (b)(i) Draw a rectangular measuring 8cm and 5cm to represent the area of the photograph
(1mk)
- (ii) On the rectangular sketch, name and label **four** main features shown on the photograph.
(4mks)
- (c) (i) Describe the scene in the photograph.
(4mks)
- (ii) Name **two** types of fish caught in the North east Atlantic fishing ground.
(2mks)

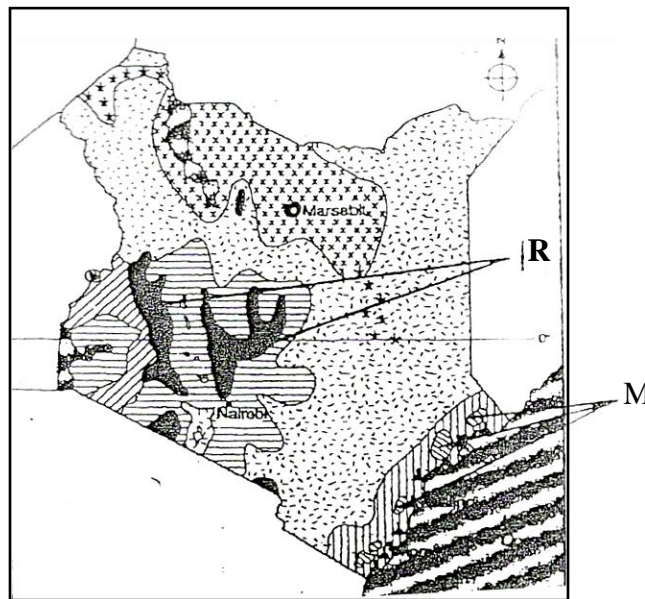
- (iii) Describe trawling as a fishing method .
(4mks)
- (d) Explain **four** factors that have made Japan to be a leading fishing nation.
(8mks)
7. (a) (i) Apart from draining of swamps, give **two** other methods through which land has been reclaimed in Kenya.
(2mks)
- (ii) Give **two** methods that are used to drain swamps in Kenya.
(2mks)
- (b) (i) Name **two** rivers that supply water to the Mwea Tabera irrigation scheme.
(2mks)
- (ii) Explain how the following factors influence the establishment of Mwea irrigation schemes.
- Topography
(2mks)
 - Soils
(2mks)
 - Population
(2mks)
 - Government policy
(2mks)
- (c) (i) Name **three** areas which make up the Zuider Zee reclamation project in the Netherlands
(3mks)
- (ii) Give **four** differences between land reclamation in Kenya and the Netherlands.
(8mks)
8. (a) What is ecotourism ?
(2mks)
- (b) (i) Give **four** tourist attraction found at the coast of Kenya
(ii) State **five** problems associated with tourism in Kenya
(5mks)
- (c) State **four** ways in which game reserves are of benefits to the communities living near them.
(4mks)
- (d) (i) Explain **three** differences in which tourism in Kenya differ from Switzerland.

- (ii) Your geography class carried out a field study in a game park.
- State **two** methods the class may have used to collect data. (2mks)
 - During the field study the class collected data on the number of tourists visiting a game park. State **two** methods the class may have used to present the data.

9. (a) (i) differentiate between indigenous and exotic forests.

(2mks)

(ii) The map below shows Kenya's forest Zones. Study and use it to answer the questions that follow.



Identify
M and **R**

forests marked
(2mks)

(iii) State **three** factors that lead to depletion of forests in Kenya.

(3mks)

(b) Explain **three** factors that favour the growth of natural forests on the slopes of Mt. Kenya (6mks)

(c) Compare forestry in Kenya and Canada under the following headings:

(i) Distinction of forests

(2mks)

(ii) Mode of exploitation

(2mks)

(iii) Transport

(2mks)

(d) (i) State **three** factors favouring the development of softwood forests in Canada.

(3mks)

(ii) Give **three** measures used to conserve forests in Kenya.
(3mks)

10. (a) (i) Give **four** factors common to Kenya and the Netherlands that have favoured horticultural farming

(4mks)

(ii) State **three** features of Horticultural farming in the Netherlands.
(3mks)

(b) The table below shows the quantity and value of Kenya's horticultural exports between June 2008 and June 2009. Use it to answer questions (b)

Month	Quantity (Metric tonnes)	Value (ksh in millions)
June 2008	15,300	3,480
July	15,600	3,900
August	14,000	4,000
September	14,900	3,500
October	15,600	4000
November	14,700	4,020
December	14,000	4,000
January 2009	15,900	4,700
February	16,000	4,100
March	17,500	4,400
April	14,900	3,700
May	15,190	3,800
June	14,600	3,600

- (i) What was Kenya's total value of exports from Horticulture between June 2008 and June 2009? (2mks)
- (ii) Comment on the trend of the quantity of Kenya's horticultural exports between June 2008 and 2009.
- (iii) Using the data provided, draw a simple line graph to represent the quantity of Kenya's horticultural export.
Use a vertical scale of 1 cm to represent 500 metric **tones**
(5mks)
- (c) Explain **four** difficulties that farmers in Kenya experience in marketing horticulture.
(8mks)

311/1
HISTORY AND GOVERNMENT
PAPER 1 FORM FOUR
TIME: 2 HOURS

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

SECTION A: (25 MARKS)
ANSWER ALL QUESTIONS IN THIS SECTION.

1. Give two examples of early inhabitants in Western Kenya.
(2 marks)
2. Name the main source of historical information used in grouping the language groups in Kenya.
(1 mark)
3. Give the main method used by the archaeologists to gather their historical data.
(1 mark)
4. State two characteristics of a good constitution. (2 marks)
5. Give two reasons that influenced Seyyid Said to move his capital from Muscat to Zanzibar in 1840
(2 marks)
6. State two requirements for one to be registered as a Kenyan citizen
(2 marks)
7. State one function of a constitution
(1 mark)
8. State one reason why the government may limit the freedom of speech
(1 mark)
9. Name two sources of Nyayo Philosophy
(2 marks)
10. State one feature of missionary education
(1 mark)
11. Give one way of solving conflicts peacefully
(1 mark)
12. State two recommendations of the Lyttelton constitution of 1954
(2 marks)
13. State the main result of the repealing of section 2A of the constitution in 1991
(1 mark)

14. Give two reasons why Kenya holds elections.
(2 marks)
15. Give the main role of the Court of Appeal
(2 marks)
16. State two functions of the Attorney General
(2 marks)
17. Identify one fund into which collected revenue by the National Government is deposited.
(1 mark)

SECTION B:(45 MARKS)
ANSWER THREE QUESTIONS IN THIS SECTION.

18. (a) Give five reasons for the migration of the Somali into Kenya.
(5 marks)
(b) Describe the political organization of the Nandi during the pre-colonial period
(10 marks)
19. (a) State five functions of Fort Jesus during the Portuguese rule.
(5 marks)
(b) Explain five positive effects of missionary activities in E. Africa.
(10 mks)
20. (a) State any three ways in which colonial land policies affected the Africans in the colonial period.
(3 marks)
(b) Discuss six reasons why the MauMau movement was able to remain for a long time.
(12 marks)
21. (a) Identify three types of land holding in Kenya.
(3 marks)
(b) Explain six political challenges that has faced post independent Kenya
(12 marks)

SECTION C(30 MARKS)
ANSWER ANY TWO QUESTIONS IN THIS SECTION.

22. (a) State the composition of the cabinet
(3 marks)
(b) Explain six functions of the National Assembly.
(12 marks)
23. (a) State five challenges faced by the National Government in its attempt to raise revenue.
(5 marks)
(b) Explain five ways which the government of Kenya controls public finance.
(10 marks)
24. (a) Describe the composition of County Assembly in Kenya.
(3 marks)
(b) Explain six reasons why the County Governments were established.
(12 marks)

311/2
HISTORY AND GOVERNMENT
PAPER 2
TIME: 2 HOURS

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

SECTION A 25 MARKS

Answer all questions from this section

1. Mention **one** method of dating fossils. (1 mark)
2. State **two** stages of human evolution according to Charles Darwin. (2 marks)
3. Name the tools made by early man during the Middle Stone Age period. (1 mark)
4. State **two** theories that explain the origin of Agriculture. (2 marks)
5. Identify the main item of trade from North Africa during Trans-Saharan trade. (1 mark)
6. Give **one** example of International Trade. (1 mark)
7. State advantages of human transport. 2 marks)
8. Name **two** types of print media. (2 marks)
9. Give the contribution of Alexander Graham Bell in the field of Industry. (1 mark)
10. Name **one** treaty signed between Lobengula and British. (2 marks)
11. State **one** contributions of organization of Africa unity in the struggle for Independence in Mozambique. (1 mark)
12. Name the European power that was accused of causing the outbreak of World War 1.
(1 mark)
13. Give **two** reasons why USA joined the First World War in 1917. (2 marks)
14. Name **two** organs of the League of Nation.(2 marks)
15. Name **two** permanent members of the united nation security council. (2 marks)
16. State **two** common features of members of Common wealth. (2 marks)

17. Name the military alliance formed by USA and her allies. (1 mark)

SECTION B (45 MARKS)

Answer any three questions in this section.

18. (a) State **three** theories that explain the origin of man. (3 marks)

(b) Explain **six** importance of discovery of fire to early man. (12 marks)

19. (a) Name **three** participant who took part in Trans-Saharan – Trade. (3 marks)

(b) Describe the organization of Trans-Saharan – Trade. (12 marks)

20. (a) State **three** traditional means of water transport. (3 marks)

(b) Explain the impact of Railway transport. (12 marks)

21. (a) State **five** reasons why the British used Indirect rule in Northern Nigeria. (5 marks)

(b) Explain **five** effects of direct rule in Zimbabwe. (10 marks)

SECTION C (30 marks)

Answer any two questions

22. (a) State **three** economic activities of the Shona. (3 marks)

(b) Describe the political organization of Buganda. (12 marks)

23. (a) Name the European power that formed the tripple entente. (3 marks)

(b) Explain **six** political results of World War 2. (12 marks)

24. (a) State **three** causes of Cold war. (3 marks)

(b) Explain **six** challenges facing United Nation Organization (UNO). (12 marks)

313/1

C.R.E FORM FOUR 2020

Time: 2½ Hours

CHRISTIAN RELIGIOUS EDUCATION

PAPER 1

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

Instructions to Candidates

- *The paper consists of Six questions*
- *Answer ANY THREE questions in SECTION A and ANY TWO in SECTION B in the answer sheets provided*
- *Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.*

EXAMINERS' USE ONLY

Question	1	2	3	4	5	6	TOTAL
Score							

ANSWER ANY FIVE QUESTIONS

1. (a) State **seven** reasons why the Bible is called the word of God. (7 marks)
(b) Outline the translation of the Bible from the original languages to the present local languages. (7 marks)
(c) Identify **six** ways in which the Bible is misused in Kenya today. (6 marks)
2. (a) Outline the background to the call of Abraham. (8 marks)
(b) Give instructions given to Abraham by God concerning the Jewish circumcision. (6 marks)
(c) Explain **six** reasons why circumcision was important to the Jews. (6 marks)
3. (a) Give **seven** reasons why prophet Samuel was against kingship in Israel. (7 marks)
(b) Describe Mount Carmel contest between Prophet Elijah and prophets of Baal. (7 marks)
(c) Identify lessons learnt about the nature of God from the contest at Mount Carmel. (6 marks)
4. (a) Give ways in which prophetic messages were written. (6 marks)
(b) Explain **four** visions of prophet Amos and its significance. (8 marks)
(c) Identify ways in which God speaks to Christians today. (6 marks)
5. (a) Explain **four** promises that the Israelites made when they renewed their covenant with God during the time of Jeremiah. (8 marks)
(b) Identify final reforms carried out by Jeremiah to restore the worship of God in Judah (5 marks)
(c) Give **seven** reasons why Jeremiah carried out the reforms. (7 marks)
6. (a) Outline **seven** methods used in choosing marriage partner in Traditional African Community. (7 marks)
(b) Explain the African understanding of hierarchy of beings. (7 marks)
(c) Outline **six** moral values acquired during initiation in African Traditional Community. (6 marks)

313/2
CHRISTIAN RELIGIOUS EDUCATION
PAPER 2 FORM FOUR 2020
Time: 2 ½ Hours

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

313/2
CHRISTIAN RELIGIOUS EDUCATION
PAPER 2
Time: 2 ½ Hours

INSTRUCTIONS TO CANDIDATES:

- This paper consists of **SIX** questions.
- Answer any **FIVE** questions from this paper in the answer spaces provided.
- Each question has 20 marks.
- *This paper consists of 8 printed pages.
Candidates should check the question paper to ascertain all the pages are printed as indicated And no questions are missing.*

1. (a) With references to the incident when Jesus was dedicated to God at the age of forty days. Outline what Simeon and Anna revealed about his life. Luke 2: 25-38 (6 mks)

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(b) State Eight events which took place when Jesus accompanied his parents to Jerusalem at age of Twelve. (8 mks)

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3. (a) Give six reasons why Jesus referred to the Pharisees as hypocrites.

(6 mks)

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(b) State Eight signs of the end of time given by Jesus to his disciples in Luke 21.

(8 mks)

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(c) In what ways can Christians prepare themselves for the end of times.

(6 mks)

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4. (a) Identify the fruit of the Holy spirit taught by Saint Paul in Galatians 5:22-23.

(7 mks)

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(b) Explain what the teaching of Jesus about the vine and the branches in John 15:1-10 reveal

about the unity of believers .

(7 mks)

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(c) Give ways through which Christians can promote unity among themselves in Kenya today.

(6 mks)

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5. (a) Give reasons why people work in traditional African communities.

(6 mks)

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(b) State the moral duties and responsibilities of employees towards employers.

(8 mks)

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(c) Explain the factors that a Christian should consider when choosing a career.
(6 mks)

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6. (a) Describe ways in which Christians make use of science and Technology to spread the gospel.
(7 mks)

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(b) State why some Christians are against organ transplant and blood transfusion.
(7 mks)

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(c) In what ways can Christians in Kenya help to protect the environment.
(6 mks)

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BUSINESS STUDIES FORM FOUR

565/1

PAPER 1 FORM FOUR 2020

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

Instructions to the candidate:

- a) Write your name and index number in the spaces provided above.
- b) Sign and write date of examination in the spaces provided above.
- c) Answer all questions.
- d) All answers should be written in the spaces provided in this booklet.
- e) Candidate should answer questions in English.

TOTAL

MARKS

1. Identify the type of wholesalers described in the statements given below: (4 Marks)

a) A wholesaler who trades in maize grain only

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b) A wholesaler who supplies goods to most of the traders in kitui,mbooni and machakos districts in the eastern part of Kenya

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c) A wholesaler who buys tomatoes from farmers in rural areas and sells the same to other wholesalers in urban areas.

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d) A wholesaler who trades in a wide variety of human medicine

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2. Outline **four** factors that should be considered before buying office equipment. (4 Marks)

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3. Outline **four** malpractices by traders against which consumers may need protection by the government. (4 Marks)

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4. State **three** features of an insurable interest. (3 Marks)

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5. Outline **four** ways of reducing the level of unemployment in Kenya. (4 Marks)

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6. State **four** services offered by a commercial banks to its consumers. (4 Marks)

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7. List **four** sources of public finance. (4 Marks)

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8. Outline **four** reasons why countries may trade with each other (4 Marks)

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9. State **four** reasons why economic development is desirable to a country. (4 Marks)

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10. Indicate the rewards associated with each of the factors of production in the table below.

(4 Marks)

	Factor of production	Rewards
(a)	Lake	
(b)	Driver	
(c)	Shareholder	
(d)	Tractor	

11. Outline circumstances under which a co-operative society may be dissolved. (4 Marks)

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12. Highlight **four** features of a bonded warehouse.

(4 Marks)

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13. Outline **four** factors that may be considered when measuring the size of a firm. (4 Marks)

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14. The following transactions were extracted from the books of Sarah traders for the month of March 2006.

March 10: Purchased goods on credit worth Ksh 200,000 from salim traders

March 25: Sold goods on credit worth Ksh 420,000 to shah traders

Record the above transaction in the ledger accounts below

(4 Marks)

(a) Dr. salim traders account Cr.

(b) Dr. purchase account Cr.

(c) Dr. shah traders account Cr.

(d) Dr. Sales account

15. On 2nd November 2006, Oromo received an invoice for Ksh 12,000. Terms of payment were trade discount 5% and cash discount 10%, if payment is made within 30 days. Determine the amount paid if payment was made on 28th November 2006. (4 Marks)

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16. The following balances were extracted from the books of Nafula traders as at 31st December 2005.

Ksh

Current liabilities	150,000
Net profit	50,000
Total assets	500,000
2 years bank loan	100,000

Calculate the rate of return on capital. (4 Marks)

17. The information given below was extracted from the books of Amina traders on 31st December 2006

Ksh

Purchases	260,000
Opening stock	75,000
Carriage on purchases	12,000
Closing stock	27,000

Goods were sold at a mark-up of 25%

Using the information given above, prepare Amina traders trading account. (4 Marks)

18 .State **four** benefits that a farmer may get by transporting produce to the market by road.

(4 Marks)

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19. The table given below represents the supply schedule of sukumawiki(kales) for eight weeks in the month of January and February 2009

WEEK	1	2	3	4	5	6	7	8
QUANTITY (METRIC TONES)	505	485	430	375	340	290	215	195

Outline **four** causes of the trend in the table

(4 Marks)

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20. Outline **four** ways in which households contribute to National income of a country.

(4 Marks)

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21. Outline **four** circumstances in which a trader may use oral communication. (4 Marks)

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22. Outline **four** reasons why a firm may remain small. (4 Marks)

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23. On 1st January 2007, Muthoni Traders' cash book showed a credit balance of Ksh 150,000 at the bank and a debit balance of Ksh 25,250 in hand. During the month, the following transactions took place:

January 5: Made cash sales for Ksh 21,500

January 16: Received a cheque for Ksh 360,000 from a debtor

January 28: Paid a creditor Ksh 100,000; partly by cheque of Ksh 80,000 and the balance in cash.

Prepare a two-column cash book for the month. (5 Marks)

24. State **four** benefits that a trader may get by advertising products in a newspaper. (4 Marks)

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25. Highlight **four** advantages of an enclosed office layout. (4 Marks)

CHAMPIONS HOLIDAY EXAMS 2020

FORM 4 SET 3 EXAMS

INSTRUCTIONS TO CANDIDATES

- Answer any **five** the questions in section .

1. (a) Explain **five** roles of entrepreneurship to the economy of Kenya. (10 mks)
- (b) Explain **five** principles that govern the operations of insurance industry. (10 mks)
2. (a) Highlight **four** features of circular flow of income in a two sector economy. (8 mks)
- (b) The following trial balance was extracted from the ledgers of Gathioro's mobile phones business for the year ended 31st October 2013.

**Gathioro's mobile phones
 Trial Balance
 As at Gathioro's 31st October 2013**

Details	Dr. (shs)	Cr. (shs)
Sales		855,000
Purchase	420,000	
Sales returns	12,000	
Purchase returns		20,000
Creditors		165,000
Debtors	63,000	
Motor vehicle	480,000	
Cash in hand	65,000	
Furniture	190,000	
Carriage inwards	14,000	
Stock	280,000	
Capital		626,250
Drawing	88,000	
Telephone	6,400	
Insurance	8,200	
Postage	3,850	
Rent	19,600	
Discounts received		4,000
Advertising	12,900	
Discount allowed	7,300	
	1,670,250	1,670,250

On 31st Oct. 2013 , the business had closing stock valued at Shs. 60,000.

Required

- (i) The trading profit and loss A/C for the year ended 31st October 2013. (8 mks)
- (ii) Prepare Balance sheet as at 31st October 2013. (4 mks)

3. (a) Explain **five** external environment factors that may influence the operations of a business positively. (10 mks)

(b) Explain **five** factors considered in the choice of a means of transport (10 mks)

4. (a) Explain **five** benefits of high population to a country. (10 mks)

(b) Explain **five** circumstances that may make a bank to reject a cheque. (10 mks)

5. (a) Outline **five** differences between a sole proprietorship and a public limited company. (10 mks)

(b) Despite the economies of scale , small firms have continued to exist. Explain five reasons which account for their survival. (10 mks)

6. (a) Explain **five** characteristics of good money . (10 mks)

(b) On 1st November 2016 , Mambo traders had cash in hand sh 4,250 and cash at bank sh 140,500. During the month the following transaction took place. (8 mks)

Nov 2nd cash sales directly banked sh.38,700.

" 3rd received a cheque for sh 14,000 from Murungi in full settlement for a debt of ks 5,000.

" 8th bought goods for sh 25,300 by cheque.

" 12th cash sales sh 42,450.

" 14th paid Omwange by cheque sh 23,750 in full settlement on his account less 5% discount.

" 15th paid wages sh 34,000 in cash.

" 16th bought stationary in cash sh 950.

" 24th paid salaries by cheque sh 45,800.

" 28th paid electricity in cash sh 2,500.

" 30th all cash was banked except sh 4,000

Required : Prepare a three column cashbook.

451/1
COMPUTER STUDIES
HOLIDAY EXAMS 2020
TIME: 2 ½ HRS

CHAMPIONS HOLIDAY EXAMS 2020 FORM 4 SET 3

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

451/1
COMPUTER STUDIES
PAPER 1 FORM FOUR 2020

Instructions to candidates

1. This paper consists of TWO sections; A and B
2. Answer all questions in sections A.
3. Answer question 16 and any other THREE questions from section B.

FOR EXAMINERS USE ONLY

SECTION	QUESTION	
A	1 – 15	
B	16	
	17	
	18	
	19	
	20	
TOTAL MARKS		

*This paper consists of 12 printed pages.
Candidates should check to ensure that all pages are printed as indicated and no question is missing.*

SECTION A (40 MARKS)

ANSWER ALL QUESTIONS IN THIS SECTION

1. Differentiate between cold booting and warm booting in computing

(2

mks)

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

2. Define parallel processing

(1mk)

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.....
.....

3. (a) Mention any **TWO** reasons why command-based operating systems are not common in today's business computer systems.

(2mks)

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.....
.....

(b) Explain any **THREE** functions of an operating system with respect to memory management (3mks)

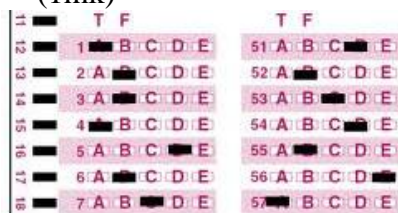
.....
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4. Differentiate between partitioning and formatting as used in disk management

(2mks)

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.....
.....

5. Name the type of scanner used to capture data from the following document format below
(1mk)



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

6. Computer output can now be in form of spoken words in digitized speech. An example of such application is spell learning devices for children. State ONE advantage of speech output.
(1mk)

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

7. Mention any TWO features that are considered before buying a main memory module.
(2mks)

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.....
.....

8. A technician recommended a computer in the principal's office needs upgrading of the CPU. State any TWO reasons that may have necessitated the upgrading of the CPU.
(2mks)

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.....
.....

9. State TWO reasons why secondary storage is preferred to main memory in data storage.
(2mks)

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.....
.....

10. (a) State **ONE** advantage of relational database model over flat files

(1mk)

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

(b) State **TWO** uses of primary keys in a database

(2mks)

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

(c) A database requires data to be defined by assigning data types to fields for purposes of consistent storage. Describe any **FOUR** data types that can be allowed in Ms Access.

(4mks)

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

(d) Define the term macro as used in databases

(1mk)

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11. State any **ONE** reason why USB interface cables are widely used in computing devices

(1mk)

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.....

12. A company is considering replacing some of its software, including its word processing package, and to acquire an integrated software package. State **TWO** advantages for the company in using in tegrated software rather than separate packages.

(2mks)

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.....

13. (a) State **TWO** types of DTP software

(2mks)

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

(b) List **FOUR** page formatting features in DTP

(2mks)

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14. (a) Explain the meaning of “what if analysis” in spread sheets

(2mks)

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.....

(b) The table below shows items consumed by some students for breakfast in a given day.

	A	B	C	D	E	F
1			ITEM COST			
2	NAME		SAUSAGE	TEA	BANANA	TOTAL COST
3			15.00	10.00	5.00	
4	Charles		1	1	2	35
5	Amoit		2	4	2	80
6	David		3	1	2	
7	Okello		2	1	2	50

(i) Using an expression, find the total expenditure incurred by David

(2mks)

.....
.....

(ii) State what you would obtain from the expression = Count IF (F4:F7, “>45”)

(1mk)

.....
.....

15. Define the following terms as used in relation to operating systems

(2mks)

(i) Folder

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

(ii) Drive

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

SECTION B (60 MARKS)

ANSWER QUESTION 16 AND ANY OTHER THREE QUESTIONS FROM THIS SECTION

16. (a) State any THREE advantages of using Object Oriented programming for writing programs
(3mks)

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(b) In a computer contest with 40 entries, three papers are tested and the final marks awarded according to the average of the papers. The final marks are then ranked to get position 1, 2 and 3 who are awarded trophy, cash and scholarship, trophy and cash, and cash respectively

Write a program pseudocode and flowchart that will prompt for the name, school and marks for each paper then compute the final marks and rank and display the students name, school, final marks position and award.

i. Pseudocode
(5mks)

ii. Flowchart (7mks)

17. (a) With the aid of a well labeled diagram, describe control and feedback model in a system
(4mks)

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.....

18. (b) Distinguish between the following terms as used in system development
(4mks)

i. Hard system and soft system

.....
.....

ii. Operational feasibility and technical feasibility

.....
.....

(c) State **THREE** ways in which organizations manage system entropy
(3mks)

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

(d) Explain any **TWO** reasons for system maintenance
(1mk)

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.....
..

(e) Briefly explain **THREE** ways in which computers can be used in motor vehicle manufacturing companies
(3mks)

.....
.....

19. (a) Distinguish between the following terms as used in data communication
(4mks)

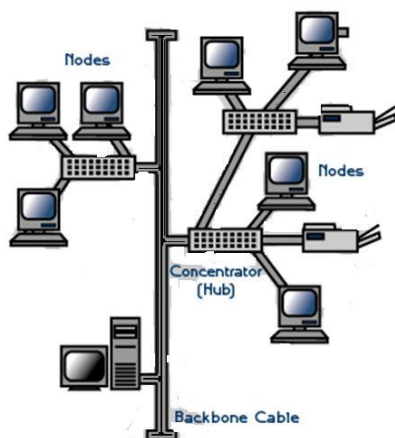
i. Guided transmission and unguided transmission

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

ii. Multiplexing and demultiplexing

.....
.....

(b) Below is a diagram of a network topology.



i. Name the above topology
(1mk)

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

ii. State **ONE** advantages and **ONE** disadvantage of using the topology named above
(2mks)

.....
.....

(c) (i) State **TWO** ways in which users in an organization can be a security threat to data in an information system.
(2mks)

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.....
.....

(ii) Define cyber terrorism

(1mk)

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.....

(d) A school intends to set-up an e-mail.

List **FOUR** activities likely to be provided by the e-mail facility.

(2mks)

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.....
.....

(e) Define the following terms as used in the internet.

(2mks)

(i) Internet blog

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

(ii) Webportals

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

(f) Kenya publishing and printing company wishes to employ an ICT professional to assist in making publications. State the suitable ICT professional the firm could employ

(1mk)

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.....
.....

20. (a) (i) List and explain the **THREE** types of errors that can occur during data collection stage of data processing cycle

(3mks)

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.....

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.....
(ii) Distinguish between master file and transaction file
(2mks)

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.....
(iii) Define real time processing
(1mk)

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.....
.....
(iv) Explain a situation where the batch processing would be appropriate
(1mk)

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.....
.....
(b) Using twos complement, perform the following operation and give your answer in decimal notation

- $777_8 - 25_{10}$ (4mks)

.....
.....
.....
(c) Solve $AC_{16} + 101_2 = X_2$
(2mks)

(d) Convert binary number 11010110.1001_2 into octal number.
(2mks)

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20. (a) State any TWO negative effects of introducing robots in a manufacturing plant
(2mks)

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(b) State THREE advantages of using computers
(3mks)

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.....

(c) Name THREE types of special purpose memories used in a computer
(3mks)

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.....

(d) Explain the purpose of the system clock
(2mks)

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(e) (i) In word processing, differentiate between text wrap and word wrap
(2mks)

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(ii) List any THREE types of section breaks used in word.
(3mks)

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.....

451/2
COMPUTER STUDIES
PAPER 2
(PRACTICAL)
TIME: 2 ½ HOURS

CHAMPIONS HOLIDAY EXAMS 2020

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

FORM 4 SET 3 CHAMPIONS

451/2
COMPUTER STUDIES
PAPER 2 FORM FOUR 2020
(PRACTICAL)

Instructions to candidates.

- a) Indicate your name and index number at the top right hand corner of each printout.
- b) Write your name and index number on the CD provided.
- c) Write the name and version of the software used for each question attempted.
- d) Answer **all** questions.
- e) All questions carry equal marks.
- f) Passwords should not be used while saving.
- g) Make a print out of the answers on the answer sheet.
- h) Hand in all the print out and the CD.

This paper consists of 4 printed pages.
Candidate should check the question paper to ascertain all pages are printed as indicated

1. The table below shows the admission numbers and names of five students and their scores in six subjects in a mock examination.

ADM. NO.	Name	English	Maths	Biology	Chemistry	Physics	History
2020	Victor Mutiso	77	68	75	35	58	80
2032	Zablon Onyango	44	77	80	42	60	73
2037	Pauline Nafula	68	59	91	39	59	75
2040	Naom Cherop	55	80	89	48	38	66
2044	Jameleck Kioko	69	62	83	43	44	70

- a) Enter the above data into a worksheet and save the file as ‘mock results’ (13mks)
- b) Using a formula, calculate the; (4mks)
- a) Total score for each students
 - b) Mean score for each student
- c) Use a function to obtain the mean for each subject (3mks)
- d) A student is awarded a ‘pass’ if their mean score is 60% or more. Use a function to determine the number of students who are awarded ‘pass’ (2mks)
- e) Format the worksheet as follows
- Borders : single line
 - Subject heading : align 90°
 - Merge the cells above all the subjects headings so that the text ‘SUBJECT’ is above them.
 - Mean score : One decimal place (4mks)
- f) Copy the contents of the worksheet to a blank worksheet and insert a blank column after every subject.
 Label the new columns as Eng B, math B, Bio B, Chem B, Phy B, and Hist B respectively. On the inserted columns, compute the grades using IF function based on the following criteria. (10mks)
- | Mean score | Grade |
|------------------------|-------|
| score \geq 75 | A |
| $60 \leq$ score $<$ 75 | B |
| $50 \leq$ score $<$ 60 | C |
| $45 \leq$ score $<$ 50 | D |
| Score $<$ 45 | E |
- g) Hide all the columns containing score values and save the worksheet as “Mock results 2” (2mks)
- i) Create a bar chart to compare students mean score and label the chart accordingly. (10mks)
- j) Print the two worksheets and the bar chart (4mks)

2. The data in the table was extracted from a survey data on employment.

Table 1: EMPLOYEE TABLE

Name	Year of birth	Employee ID NO.	Employer ID	Job category
DAISY	1980	13144	01	GK4
DAVID	1970	11100	04	GK3
DOREEN	1984	14010	02	GK1
DAVIN	1976	12110	05	GK1
ALLAN	1973	11410	03	GK2
KATE	1968	10570	04	GK3
ZEDDY	1990	11040	05	GK3
PIUS	1998	15978	03	GK2
ZION	1992	17192	02	GK4
BOB	1993	18965	05	GK4

Table 2: EMPLOYMENT TYPE

Job Category	Job Description
GK1	Casual
GK2	Temporary
GK3	Contract
GK4	Permanent

Table 3: EMPLOYER TABLE

EMPLOYER ID	EMPLOYER NAME
01	ONYANGO
02	WAMBUA
03	OSHIRO
04	KATANA
05	AWINJA

- a) i) Create a database named “STAFF” to store the above (14mks)
 ii) Create relationships between the tables (4 ½ mks)
 iii) Use forms to enter data into the tables (10 ½ mks)
- b) i) Generate a report to display the name year of birth, age and employer’s name for the employees who will be over 30years old by the year 2015 (10mks)
 ii) Compute the mean age of employees on the report you created in b(i) above. (2mks)
- c) i) Create a query to display the employees and their job description. Save the query as “STAFF TYPE” (3mks)
 ii) Create a pie chart based on the query in c(i) above to display the proportion of employees in various job description.
 Save the report as CHART
- d) Print i) Three tables
 ii) Two reports
 iii) Output of query results for STAFF TYPE.

CHAMPIONS HOLIDAY EXAMS 2020

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

FORM 4 SET 3 CHAMPIONS

INSTRUCTIONS TO CANDIDATES

- Write your name and index number in the spaces provided above.
- Sign and write the date of examination in the spaces provided above.
- This paper consists of three sections A,B and C.
- Answer **all** the questions in sections A and B and any **two** questions from section C in the spaces provided.

For examiner's use only

Section	Question	Maximum score	Candidates score
A	1-15	40	
B	16	20	
C		20 20	
Total Score		100	

This paper consists of 8 printed pages. Candidate should check to ascertain that all pages are printed as indicated and that no questions are missing.

SECTION A:(40MARKS) COMPULSORY

1. Stainless steel is the best material for making knives. Give two reasons for its popularity.(2mks)

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.....
.....

2. Give the meaning of each letter in the acronym RICE in first aid. (2mks)

R.....
I.....
C.....
E.....

3. Mention three desirable characteristics of a duster. (3mks)

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.....
.....

4. Give three characteristics of a well made French seam. (3mks)

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.....
.....

5. List down four methods of neatening an open seam. (2mks)

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.....
.....

6. List down three positive effects of advertising to a consumer. (3mks)

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.....

7. Mention three measures a person handling food should take to ensure the food does not get contaminated. (3mks)

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.....

8. State two ways of ensuring that fresh milk at home is safe for consumption. (2mks)

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.....

9. Saucepans should be covered when cooking. Give three reasons for doing this. (3mks)

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.....

10. Food can be contaminated through various ways. Identify three ways in which food can be contaminated by a cook. (3mks)

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.....

11. Give two reasons for use of each of the following items in laundry work.

i) Fabric conditioner (2mks)

.....
.....

ii) Salt (2mks)

.....
.....

12. Mention two ways of preventing infections in a baby through the umbilical cord. (2mks)

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.....

13. Describe three ways of reinforcing the end of a machine stitched dart. (3mks)

.....
.....

14. List down two functions of openings. (2mks)

.....
.....

15. Give three disadvantages of using charcoal when cooking. (3mks)

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

SECTION B: COMPULSORY (20 marks)

16. You visited your aunt and are required to help her with household chores;

- a) Describe the procedure you would use to thoroughly clean a discoloured melamine cup. (9mks)

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.....

- b) Outline the procedure you would follow when cleaning water glasses (6mks)

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- c) Explain how you would finish a white cotton table cloth. (5mks)

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SECTION C:(40 marks)

Answer any TWO questions

17. a) Explain four ways in which old newspaper may be used when cleaning a house. (4mks)

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.....

- b) Discuss five factors that may influence the frequency of cleaning a house. (10mks)

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.....

- c) Mention four types of information which may be found on the labels of goods. (4mks)

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.....

d) Describe any two types of drainage found in modern homes. (2mks)

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18. a) Discuss four factors that determine the method of cooking to be used. (8mks)

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b) Mention five causes of malnutrition in Kenya today. (5mks)

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.....
.....

c) Give three reasons for food fortification. (3mks)

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.....

d) Mention two factors to consider when selecting fastenings. (2mks)

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.....

e) List down two qualities necessary for a fabric used for an apron. (2mks)

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.....

19. a) Describe three physical changes that occur in girls during adolescence. (3mks)

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.....
.....

b) Mention four advantages of baking. (4mks)

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.....

c) Give three reasons why a mother may decide to deliver at home. (3mks)

.....

d) Explain four dangers of teenage pregnancy. (8mks)

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

e) Mention any two types of thread. (2mks)

.....

CHAMPIONS HOLIDAY EXAMS 2020

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

FORM 4 SET 3 CHAMPIONS

INSTRUCTIONS T CANDIDATES

A pattern of a girls skirt is provided. You are advised to study the sketches, instructions and the layout carefully before you begin the test.

Materials provided.

1. Pattern pieces
 - A - BACK SKIRT
 - B - LOWER FRONT SKIRT
 - C - SKIRT YOKE
 - D - FRONT WAIST BAND
 - E - BACK WAIST BAND
 - F - INTERFACING (CUT WAIST BANDS)
2. Plain light weighed cotton fabric 40cm long by 90cm wide.
3. Sewing thread to match
4. White 7 inches zip
5. On envelope.

THE TEST

Using the materials provided, cut out and make the LEFTHALF of the girls skirt to show the following

- (a) Working of the back dart.
- (b) Preparing and Stitching of the tucks on the lower skirt..
- (c) Joining of the yoke to the lower skirt using aunneated overlaid seam.
- (d) Joining of the side seam using a neatened open seam and leaving the zip opening ready.
- (e) Insertion of the zip fastener using semi-concealed method.
- (f) Preparing and attachment of the interfaced waist bands.
- (h) Cutting and working of the 1cm long button hole on the front waist band.

At the end of the examination firmly sew onto your works on 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.

All cut pattern pieces must be enclosed even if not used. However; do not put scraps of fabric in the envelope.

441/3
HOME SCIENCE
PAPER 3
(Food and Nutrition)
Practical
1 ¼ Hours

CHAMPIONS HOLIDAY EXAMS 2020

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

FORM 4 SET 3 CHAMPIONS

PLANNING SESSION: 30 Minutes
PRACTICAL TEST SESSION: 1 ¼ Hours

Instructions to candidates

- Read the test carefully.
- Text books and recipe books may be used during the planning session as reference materials.
- You will be expected to keep your order of work during the practical session.
- You are only allowed to take away your reference materials at the end of the planning session.
- You are not allowed to bring additional notes to the practical session.

THE TEST

You have been left at home with your 10year old Nephew who is going for a trip after lunch.
Using all the ingredients listed below.

- Prepare a suitable one-course lunch for two.
- Prepare and pack two suitable snacks and include a refreshing drink.

Ingredients

- Maize flour/Rice/Spaghetti
- Beef
- Kales/cabbage
- Mango/pineapple/pawpaw
- Garlic
- Green paper/Capsicum
- Onions
- Tomatoes
- Cooking fat/oil
- Salt
- Carrots
- Royco
- Eggs
- Wheat flour
- Baking powder
- Dhania
- Sugar

PLANNING SESSION-30MINUTES

For each task listed below use separate sheets of paper and carbon paper to make duplicate copies then proceed as follows:

- Identify the dishes and write their recipes.
- Write your order of work.
- Make a list of foodstuff and equipment you will require.

FRENCH

PAPER ONE

CHAMPIONS HOLIDAY EXAMS 2020

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

FORM 4 SET 3 CHAMPIONS

SECTION 1

Listening Comprehension (15marks)

Write answers to questions 1-4 in the spaces provided

Passage 1

SONDAGE

Fill the table below by supplying the required information on the person being interviewed

(a)	Nom :	(1/2mk)
(b)	Age :	(1/2mk)
(c)	Petit-boulot:	Le _____ de _____ à _____ (1 1/2mk) (le jour) (l'heure)
(d)	Détails du petit-boulot:	(i) _____ (1/2mk) (ii) _____ (1/2mk) (iii) Et quelquefois faire _____ (1/2mk)

(e) Quel est son avis concernant le boulot en question? (1mk)

Passage 2

FLASH-INFO

Fill in the blanks using one word

D'après le Flash-info, Madame Chebet qui _____ (i) la rue Kimathi s'est case le _____ (ii) gauche car le conducteur de la Peugeot _____ (iii) ne s'est pas arrêté aux _____ (iv) rouges. Cet accident a eu lieu à _____ (v) du matin (2 1/2mks)

Passage 3

MESSAGE SUR UN REPONDEUR

Complete the following table. Put an (X) if the answer is not mentioned in the recorded text

3.

(i)	La personne qui laisse un message	
(ii)	Jour de la sortie	
(iii)	type de sortie	
(iv)	Lieu	
(v)	Prix	

(b) De quelle nationalité est l'amie de Lucie? _____ (1/2mk)

(c) À quelle heure commence la sortie ? _____ (1/2mk)

(d) Complétez le numéro de téléphone 06 _____ (1/2mk)

(e) Combien seront-ils en tout ? _____ (½mk)

Passage 4

UNE PUBLICITE

Answer the following questions :-

4. (a) Dans quelle région est-ce qu'on fera la randonnée? (½mk)
(b) D'où partira la randonnée ?
(c) Combien coûte cette activité ?
(d) Citez deux activités par lesquelles la journée terminera
(i)(ii) (1mk)

SECTION II

Dictation (5marks)

SECTION III- (25 MARKS)

COMPOSITION

1. **In 120-150 words, write in French on:**

Either

(a) Votre société située dans une grande ville vous demande d'aller travailler à la campagne. Vous avez des objections. Ecrivez une lettre au directeur de l'organisation FAM pour lui expliquer votre problème. (10 points)

or

(b) Votre école a participé aux sports régionaux de cette année. Malheureusement, il y a eu beaucoup de problèmes. Ecrivez une lettre de plainte à l'adresse suivante : Le Directeur, O.R.S.S., B.P.20406, Yaoundé, Cameroun. (10points)

2. **Write in French a composition of about 150-180 words on :-**

(a) Vous marchiez dans une rue déserte le soir, quand vous avez entendu des voix derrière vous. Racontez ce qui s'est passé. (15mks)

Or

(b) Pendant votre voyage par le train, vous êtes descendu(e) avant votre destination.

SECTION 1

Listening Comprehension

Write the answers to Questions 1-6 in the spaces provided

Passage 1

1. (a) Bonpourtous est un-----qu'on peut prendre pendant deux -----différentes (1 point)
(b) Dans le texte on nomme -----parties du corps. (½ point)

Passage II

2. Notez les invites

- | |
|------------------------------------|
| (a) Nom _____ (½point) |
| (b) Prénom _____ (½point) |
| (c) Age _____ (½point) |
| (d) Anniversaire _____ |
| (e) Passe temps |
| (i) _____ (½point) |
| (ii) _____ (½point) |
| (iii) _____ (½point) |
| (f) No de telephone _____ (½point) |

Passage III

3. (a) Quels sports pratique Guy? -----(1½ point)
 (b) Quel est son sport favori? -----(½ point)
 (c) Guy est capitaine de -----(équipe)(½points)

Passage IV

4. (a) (i) Combien de fois est-ce qu'on joue aux devinettes pendant la semaine?
 -----(½point)
 (b) A quelle heures? -----(½point)
 (c) Comment peut on participer au jeu? -----(½point)

Passage V

5. (a) D'après ce texte, qui a besoin d'informations? -----(½point)
 (b) Ces informations sont pour -----et elles existent déjà sur -----
 (c) Comment peut on trouver plus d'information? -----(1point)

Passage VI

6. (a) Depuis ----Monsieur Leconte a un -----ou il reçoit -----clients par jour (1½point)
 (b) A quels moments est-ce que les clients viennent? -----(½point)

SECTION 2
DICTATION

SECTION 3
COMPOSITION

1. Write in FRENCH a composition of 120-150 words on

Either

1. (a) Vous avez vu l'annonce suivante dans un journal. Ecrivez une lettre de réservation pour réserver une place pour votre famille

or (b) Vous avez la tâche de préparez le dîner pour votre famille. Ecrivez la recette dont vous vous servez.

2. Write a composition in FRENCH OF 150 – 180 words on

Either

(a) Quels sont vos projets après' vos examens de l'école secondaire

or based on the proverb

(b) «Après la pluie, les beaux temps »

L'Hôtel Africana

Vous invite tous à la Nuit Africaine le 31 Août a partir de 19h. Venez goûtez, découvrez, participez a la splendeur et diversité culturelle Kenyane office spéciale : 50% de réduction pour toutes user vatiuous avant le 15 août.

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