PRECIOUS BLOOD PRE-MOCK 2015

MATHEMATICS
PAPER 1
PRE- MOCK – MARCH / APRIL 2015
TIME: 2 ½ HOURS

1. Evaluate: (3 mks)

$$\left(\frac{\left(1\frac{3}{7}-\frac{5}{8}\right)x\frac{2}{3}}{\frac{3}{4}+1\frac{5}{7}\div\frac{4}{7}of\ 2\frac{1}{3}}\right)^{-2}$$

2. Mr. Kamau son and daughter needed clothes. The son clothes were costing Ksh 324 while the daughter clothes were costing Ksh 220. Mr Kamau wanted to give them equal amounts of money. Calculate the least amount of money he would spend on the two and how many clothes each will buy. (3 mks)
3. Use reciprocal tables to find the value of $(0.325)^{-1}$ hence evaluate $\frac{\left(\sqrt[3]{0.000125}\right)}{0.325}$, give your answer to 4 s.f. (3 mks)
4. A type of paper is 40cm long, 32 cm wide and 0.8 mm thick. The paper costs sh 10 per m^2. Find the total cost of a pile of such paper of height 4.8m. (4 mks)
5. A square based brass plate is 2mm high and has a mass of 1.05kg. The density of the brass is 8.4 g/cm^3. Calculate the length of the plate in centimeter. (3 mks)
6. Solve for x in the equation: (3 mks)

$$\frac{x-3}{4}-\frac{x+3}{6}=\frac{x}{3}$$

7. A salesman earns 3% commission for selling a chair and 4% commission for selling a table. A chair fetches K£ 75. One time, he sold ten more chairs than tables and earned seven thousand, two hundred Kenya shillings as commission. Find the number of tables and chairs sold. (4 mks)
8. Using the three quadratic identities only factorise and simplify: (3 mks)

$$\frac{(x-y)^2-(x+y)^2}{(x^2+y^2)^2-(x^2-y^2)^2}$$

9. Two numbers are in the ratio 3 : 5. When 4 is added to each the ratio becomes 2 : 3. What are the numbers? (3 mks)
10. Given that Sin $(x + 4^0)$ = Cos $(3x)^0$. Find tan $(x + 40^0)$ to 4 s.f. (3 mks)
11. In a regular polygon, the exterior angle is $^1/_3$ of its supplement. Find the number of sides of this polygon. (3 mks)
12. Find the area of a segment of a circle whose arc subtends an angle of 22 $½^0$ on the circumference of a circle, radius 10cm. (3 mks)
13. An airplane leaves point A (60^0S, 10^0W) and travels due East for a distance of 960 nautical miles to point B. determine the position of B and the time difference between points A and B. (3 mks)
14. Mr. Onyango's piece of land is in a form of triangle whose dimensions are 1200M, 1800M and 1500M respectively. Find the area of this land in ha. (Give your answer to the nearest whole number). (3 mks)

15. Two men each working for 8 hours a day can cultivate an acre of land in 4 days. How long would 6 men, each working 4 hours a day take to cultivate 4 acres? (3 mks)

16. Find the equation of a straight line which is perpendicular to the line $8x + 2y - 3 = 0$ given that they intersect at $y = 0$ leaving your answer in a double intercept form. (3 mks)

SECTION B

17. (a) Use the mid-ordinate rule to estimate the area bounded by the curve $y = x + 3x^{-1}$, the x-axis, lines $x = 1$ and $x = 6$. (4 mks)

(b) Find the exact area of the region in (a) above. (3 mks)

(c) Calculate the percentage error in area when mid-ordinate rule is used. (3 mks)

18. A car whose initial value is Ksh 600,000 depreciates at a rate of 12% p.a. Determine:
(a) Its value after 5 years. (4 mks)
(b) Its value of depreciation after 5 years. (2 mks)
(c) The number of year it will take for the value of the car to be Ksh 300,000 (3 mks)

19. A square whose vertices are P (1,1) Q (2,1) R(2,2) and S (1,2) is given an enlargement with centre at (0,0). Find the images of the vertices if the scale factors are: (3 mks)
(i) -1

(ii) ½

(iii) 3

(b) If the image of the vertices of the same square after enlargement are P^1 (1,1), Q^1 (5,1), R^1(5,5) and S^1 (1,5) find:
(i) the centre of enlargement (2 mks)

(ii) the scale factor of the enlargement (2 mks)

20. On the graph paper provided plot the point P (2,2) Q (2,5) and R (4,4).
(a) Join them to form a triangle PQR. (1 mk)

(b) Reflect the triangle PQR in the line $X = 0$ and label the image as P^1 Q^1 R^1. (2 mks)

(c) Triangle PQR is given a translation by vector. T $\begin{pmatrix} 2 \\ 2 \end{pmatrix}$ to P^{11} Q^{11} R^{11}. Plot the triangle P^{11} Q^{11} R^{11}. (3 mks)

(d) Rotate triangle P^{11} Q^{11} R^{11} about the origin through -90^0. State the coordinates of P^{111} Q^{111} R^{111}. (3 mks)

(e) Identify two pair of triangles that are direct congruence. (1 mk)

21. Three warships P, Q and R are at sea such that ship Q is 400 km on a bearing of N30^0 E from ship P. ship R is 750 km from ship Q and on a bearing of S60^{0}E from ship Q. an enemy warship is sighted 1000 km due south of ship Q.
    (a) Use scale drawing to locate the position of ships P, Q, R and S. (4 mks)
    (b) Find the compass bearing of: (2 mks)
        (i) Ship P from ship S
        (ii) Ship S from ship R
    (c) Use scale drawing to determine: (2 mks)
        (i) The distance of S from P
        (ii) The distance of R from S
    (d) Find the bearing of: (2 mks)
        (i) Q from R
        (ii) P from Q

22. The table below shows the amount in shillings of pocket money given to students in a particular school.

Pocket money (Kshs)	201 – 219	220 – 229	230 – 239	240 – 249	250 – 259	260 – 269	270 – 279	280 – 289	290 – 299
No. of students	5	13	23	32	26	20	15	12	4

    (a) State the modal class. (1 mk)
    (b) Calculate the mean amount of pocket money given to these students to the nearest shilling. (4 mks)
    (c) Use the same axes to draw a histogram and a frequency polygon on the grid provided. (5 mks)

23. Given that points X (0,-2), Y (4, 2) and Z (x,6);
    (a) Write down the column vector $\overrightarrow{XY}$. (1 mk)
    (b) (i) Find $\left|\overrightarrow{XY}\right|$ leaving your answer in index form. (3 mks)
        (ii) Given that $\left|\overrightarrow{XZ}\right|$ = 11.3170, find the coordinates of Z. (3 mks)
    (c) Find the mid-point of the line YZ. (3 mks)

24. A bus and a matatu left Voi from Mombasa, 240 km away at 8.00 am. They travelled at 90 km/h and 120 km/h respectively. After 20 minutes the matatu had a puncture which took 30 minutes to mend. It then continued with the journey.
    (a) How far from Voi did the catch up with the bus. (6 mks)
    (b) At what time did the matatu catch up with the bus? (2 mks)
    (c) At what time did the bud reach Mombasa? (2 mks)

PRECIOUS BLOOD PRE-MOCK 2015

MATHEMATICS
PAPER 2
PRE- MOCK – MARCH / APRIL 2015
TIME: 2 ½ HOURS

1. Without using logarithm tables or calculator, solve $3^{2x+3} - 28\,(3^x) + 1 = 0$. (3 mks)

2. Use a mathematical table to evaluate: (3 mks)

$$\left(\frac{4.28\ x\ 0.01677}{\tan 20}\right)^{\frac{1}{5}}$$

3. Simply and leave answer in surd form. (3 mks)

$$\frac{-9}{\sqrt{13}+\sqrt{3}} - \frac{5}{\sqrt{3}-\sqrt{13}}$$

4. The sides of triangles were measured and recorded as 8.4 cm, 10.5 cm and 15.3. Calculate the percentage error in perimeter correct to 2 d.p. (3 mks)
5. Simplify: (3 mks)

$$\frac{\log 16 + \log 81}{\log 8 + \log 27}$$

6. Simplify the expression: (4 mks)

$$\frac{(-36+9x^2)+(-6y+3xy)}{3x-6}$$

7. Given that $\frac{x\,(x^2-1)}{x+1}$, find dy/dx at the point (2,4). (3 mks)
8. (a) Expand and simplify the expression $\left(10 + \frac{2}{x}\right)^5$ (2 mks)
   (b) Use the expression in (a) above to find the value of 14^5. (1 mk)
9. John buys and sells rive in packets. He mixes 30 pockets of rive A costing sh 400 per packet with 50 packets of another kind of rive B costing sh 350 per packet. If he sells the mixture at a gain of 20%, at what price does he sell a pocket? (3 mks)

10. A chord of AB of length 13cm subtends an angle of 670 at the circumference of a circle centre O. find the radius of the circle. (3 mks)
11. Find the coordinates of the image of a point (5, -3) when its rotated through 180^0 about (3,1). (3 mks)
12. Two points P (-3,-4) and Q (2,5) are the points on a circle such that PQ is the diameter of the circle. Find the equation of the circle in the form $ax^2 + by^2 + cx + dy + e = 0$ where a, b, c and e are constants. (4 mks)

13. Two metal spheres of radius 2.3 cm and 2.86 cm are melted. The molten material is used to cast equal cylindrical slabs of radius 8 mm and length 70mm. If $^1/_{20}$ of the meal is lost during casting. Calculate the number of complete slabs cast. (3 mks)
14. A right pyramid has a rectangular base of 12 cm by 16cm. its slanting lengths are 26 cm. Determine:
    (a) The length of AC (1 mk)
    (b) The angle AV makes with the base ABCD. (2 mks)
15. Determine the inverse, T^{-1} of the matrix T $\begin{pmatrix} 4 & 6 \\ 6 & -2 \end{pmatrix}$ hence solve : (3 mks)

    $2x + 3y = 30$

    $3x - y = 10$
16. Use squares, square roots and tables to evaluate: (3 mks)

    $3.045^2 + (49.24)^{-1}/_2$

SECTION B

17. The table below shows the frequency distribution of diameter for 40 tins in millimeters.

Diameter (mm)	130 – 139	140 – 149	150 – 159	160 – 169	170 – 179	180 – 180
No of tins	1	3	7	13	10	6

    Using a suitable working mean calculate:

    (a) The actual mean for the grouped lengths. (4 mks)

    (b) The standard deviation of the distribution. (6 mks)

18. A $^3/_2$ Bao yearly plan is a school pocket money (SPM) saving scheme requiring 12 months payments of a fixed amount of money on the same data each month. All savings earn interest at a rate of p% per complete calendar month.
    Lewis Kamau decides to invest K£ 30 per month in this scheme as advised by Gumbo and Oteinde 4Q and 4P class governors a.k.a class secretaries and witnesses by very determined mathematics. Martine Mutua Mukumbu (M^3) and makes no withdrawals during the year.
    (a) Show that after 12 compelete calendar months, Lewis first payment has increased in value to K£ 30 r^{12}, where $r = 1 + \frac{P}{100}$ (4 mks)
    (b) Show that the total value, after 12 complete calendar months, of all 12 payments is K£ 30 $r = \frac{r(r^{12}-1)}{(r-1)}$ (3 mks)
    (c) Hence calculate the total interest received during the 12 months when the monthly rate of interest is ½ per cent. (3 mks)
19. A mobile dealer sells phones of two types: Nokia and Motorola. The price of one nokia and one Motorola phone is Ksh 2000 and Ksh 16000 respectively. The dealers wishes to have al least fifty mobile phones. The number of Nokia phones should be atleast the same as those of Motorola phones. He has Ksh 120,000 to spend on phones. If he purchases x Nokia phones and y Motorola phones;
    (a) Write down all the inequalities to represent the above information. (3 mks)
    (b) Represent the inequalities in part (a) above on the grid pro\vided. (4 mks)

(c) The profit on a nokia phone is Ksh 200 and that on a Motorola phone is Ksh 300. Find the number of phones of each type he should stock so as to maximize profit. (3mks)

20. The vertices of parallelogram are O (0,0), A (5,0) B (8,3) and C (3,3). Plot on the same axes:

(i) Parallelogram O'A'B'C', the image of OABC under reflection in the line x = 4 (4 mks)

(ii) Parallelogram O''A''B''C'' the image of O'A'B'C' under a transformation described by the matix $\begin{bmatrix} 0 & -1 \\ 1 & 0 \end{bmatrix}$ Describe the transformation. (4 mks)

(iii) Parallelogram O'''A'''B'''C''' under the enlargement, centre (0,0) and scale factor ½ (2 mks)

21. A particle moving with acceleration a = (10 –t) m/s^2. When t = 1 velocity V = 2 m/s and when t = 0 displacement S = OM.
(a) Express displacement and velocity in terms of t.
(b) Calculate the velocity when t = 35
(c) What is the displacement when t = 5
(d) Calculate maximum velocity.

22. (a) Three quantities x, y and t were such that the square root of y varies directly as x and inversely as t. find the percentage change in t if x decreases in ratio 4 : 5 and y increases by 44%. (5 mks)

(b) If y varies as the square root of x and the sum of the vale of y when x = 4 and y = 100 is 2:
(i) Find y in terms of x (3 mks)
(ii) Find x correct to one d.p when y = 14 (2 mks)

23. Use a ruler and pair of compasses only in this question. ABC is a fixed triangle in which AB = AC = 6 cm and angle BAC = 90^0. Show clearly on a two dimensional drawing the locus of Q in each case below.
(a) When Q is equidistant from both lines CA and CB. (5 mks)
(b) When the area of triangle ABC = areas of triangle QBC. (5 mks)

24. Two fair dice are tossed once. The event A and B are defined as follows:
A: the score on the two dices are the same
B: at least one die shows a 4.
(a) Draw a probability space representing the tossing. (2 mks)
(b) Calculate:
(i) The probability of even A (1 mk)
(ii) The probability of even B (2 mks)
(iii) The probability of even A and B (2 mks)
(c) If the two dice are tossed three time
(i) Draw a tree diagram showing the event A happening for the three tosses. (1 mk)
(ii) Calculate the probability that A occurs:
(a) Exactly once (1 mk)
(b) At least once (2 mk)
(c) At most once (2 mks)

PRECIOUS BLOOD PRE-MOCK 2015

101/1
ENGLISH
PAPER 1: FUNCTIONAL SKILLS
TIME: 2 HOURS

1. Imagine you had some guests from Sweden who visited you to celebrate your birthday. They enjoyed the special meal that you had prepared for them. One of them has requested for the recipe. Send it by e-mail. (20mks)

2. CLOZE TEST

The broadened freedom of speech bestowed upon people ---------- the rise of social media platforms does have its merits, as many now ----------a platform where they can ---------- their concerns about injustices within the society. ----------, everything has its good things and bad things as ----------. The freedom on social media has also rendered these avenues ----------grounds for hate ----------. Many use it to promote their bigoted ideology. They encourage hatred ---------- warring individuals or parties simply because they are ---------- to the views, beliefs, or behavior that differ from ----------.

3. ORAL SKILLS

Read the oral poem below and respond to the questions that follow.

A BAREFOOT BOY

A barefoot boy! I mark him at his play…
For May is here once more, and so is he,…
His dusty trousers, rolled half to the knee,
And his bare ankles grimy, too, as they:
Cross- hatchings of the nettle, in array
Of feverish stripes, hint vividly to me
Of woody pathways winding endlessly
Along the creek, where even yesterday
He plunged his shrinking body – gasped and shook
Yet called the water 'warm' with never lack
Of joy. And so, half enviously I look

Upon this graceless barefoot and his track,…

His toe stubbed…, his big toe-nail knocked back

Like unto the clasp of an old pocketbook.

i) Identify and illustrate two devices that make the poem musical. (2mks)
ii) How would you effectively recite line 13 of this poem? (2mks)
iii) Which word would you stress in line 12? Give a reason. (2mks)

b) One of the features in listening skills is maintaining a meaningful eye-contact with the speaker. Why do you think it is important to do so? (3mks)

c) Consider the following oral literature item.

Mi moet moet a moita (There is a wound in a calf's stomach)

i) Classify the above genre (1mk)
ii) Identify and illustrate two features of sound in the above genre. (2mks)
iii) Explain what is lost if the item above is translated from its original language. (2mks)
iv) Give one role of the above item (1mk)

d) Underline the silent letter(s) in the following words (3mks)

i) sword
ii) debris
iv)grandmother
iv) bouquet
v) victual
vi)corps

e) Which is the odd one out in the following groups of words based on the underlined sounds? (3mks)

a) beer	bare	bear	pair
b) tough	giraffe	dough	photograph
c) honest	honour	heifer	heir

f) For each below, provide another that is identical in pronunciation. (4mks)

i) clue
ii) sole
iii) board
iv) tear

e) Imagine you are the leader of a discussion group in your class. How would you ensure that the discussion is fruitful. (5mks)

PRECIOUS BLOOD PRE-MOCK 2015

101/2
FORM 4
ENGLISH PAPER 2
PRE-MOCK – MARCH 2015
TIME: 2 ½ HOURS

COMPREHENSION

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

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

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

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

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

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

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

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

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

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

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

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

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

"What! What! Come! Come! Don't do anything rush!"

"If you dare touch me I shall strike your face."

"Strike your master, your husband! Are you mad?"

"I shall leave this house."

"If you dare to disgrace me by leaving the house before I am ready for you to go, there will be trouble. I do not intend to put up with a willful woman. What is my sin after all? I only want to become a decent and respectable member of society. If you leave this house without my knowledge and permission, I shall claim every penny I have spent on you since I married and

lived with you these ten years; and not only that but I shall claim all the presents I have given to your parents and other relatives. You know our native customary law."

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

Questions

i) Why does Akosua smile nervously when Kwame offers her fifty pounds to start a small business of her own? (2mks)

ii) Explain the effect of Akosua's silence on Kwame? (2mks)

iii) In not more than 60 words, summarize the reasons for Kwame's intention to marry another wife. (4mks)

v) Identify a statement from the passage which proves that Kwame was ashamed of the action he was about to take. (1mk)

vi) What is Kwame Asante's burning ambition? (1mks)

vii) Rewrite the following sentence in reported speech
'Did you consult your friends before you married me ten years ago?' Akosua asked Kwame. (1 mks)

viii) Give an instance of irony in the passage. (2mks)

ix) 'It is a grave to bury women alive whilst you men dance to the tom-tom on top of the grave.' Explain the meaning of this statement. (2 marks)

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

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

a) Disinfecting ……..

b) The words cut like a whip …….....

c) Impertinent ……...

LITERARY APPRECIATION:
The Caucasian Chalk Circle

Read the following excerpt and answer the questions that follow.

Grusha:	Hide him. Quickly! The Ironshirts are coming! I laid him on your doorstep. But he isn't mine. He's from a good family.
Peasant Woman:	Who's coming! What Ironshirts?
Grusha:	Don't ask questions. The Ironshirts that are looking for it.
Peasant Woman:	They've no business in my house. But I must have a little talk with your, it seems.
Grusha:	Take off the fine linen. It'll give us away.
Peasant Woman:	Linen, my foot! In this house I make the decisions! "You can't vomit in my room!" Why did you abandon it? It's a sin.

Grusha (*looking out of the window*): Look, they're coming out from behind those trees! I shouldn't have run away, it made them angry. Oh, what shall I do?

Peasant Woman: (*looking out of the window and suddenly starting with fear*): Gracious! Ironshirts!

Grusha: They're after the baby.

Peasant Woman: Suppose they come in!

Grusha: You mustn't give him to them. Say he's yours.

Peasant Woman: Yes.

Grusha: They'll run him through if you hand him over.

Peasant Woman: But suppose they ask for it? The silver for the harvest is in the house.

Grusha: If you let them have him, they'll run him through, right here in this room! You've got to say he's yours!

Peasant Woman: Yes. But what if they don't believe me?

Grusha: You must be firm.

Peasant Woman: They'll burn the roof over our heads.

Grusha: That's why you must say he's yours. His name's Michael. But I shouldn't have told you. (*The Peasant Woman nods*). Don't nod like that. And don't tremble – they'll notice.

Peasant Woman: Yes.

Grusha: And stop staying yes, I can't stand it. (*She shakes the Woman*). Don't you have any children?

Peasant Woman: (muttering): He's in the war.

Grusha: Then maybe he's an Ironshirt? Do you want him to run children through with a lance? You'd bawl him out. "No fooling with lances in my house!" you'd shout, "is that what I've reared you for? Wash your neck before you speak to your mother!"

Peasant Woman: That's true, he couldn't get away with anything around here!

Grusha: So you'll say he's yours?

Peasant Woman: Yes.

Grusha: Look! They're coming!

There is a knocking at the door. The women don't answer. Enter Ironshirts. The Peasant Woman bows low.

Corporal: Well, here she is. What did I tell you? What a nose I have! I smelt her. Lady, I have a question for you. Why did you run away? What did you think I would do to you? I'll bet it was something unchaste. Confess!

Grusha: (*While the Peasant Woman bows again and again*): I'd left some milk on the stove, and I suddenly remembered it.

Corporal: Or maybe you imagined I looked at you unchastely? Like there could be something between us? A carnal glace, know what I mean?

Grusha: I didn't see it.

Corporal: But it's possible, huh? You admit that much. After all, I might be a pig. I'll

be frank with you: I could think of all sorts of things if we were alone. (To the Peasant Woman) Shouldn't you be busy in the yard? Feeding the hens?

(a) Give reasons that motivate Grusha to leave Michael at the peasant woman's doorstep. Answer in note form (4 mks)
(b) Identify two aspects of style used in the excerpt. (4 mks)
(c) Why does Grusha feel that she shouldn't have revealed the baby's name to the peasant woman? (2 mks)
(d) "They're after the baby". Explain who are after the baby, under whose orders and for what reasons? (3 mks)
(e) With illustrations give one character trait for each of the following characters.

(i) Grusha …….

(ii) Corporal ……..

(f) In reference to the rest of the text where else (a part from this scene) does Grusha encounter the same corporal. (3 mks)
(g) You mustn't give him to them. Add a question tag.
(h) What happens after this excerpt? (2 mks)
(i) Explain the meaning of the following as used in the excerpt.

(a) Bawl ……...

(b) Run him through ……...

(c) Carnal glance ……

ORAL LITERATURE

The Man, His Son and The Squirrel

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

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

The chief said, "This is a lie. He is not his son. If he is his son, then let him come that I can see." Then the headman arrived in town. The chief gave his sons horses worth ten pounds. He said, "Go and join the son of the headman. Have a race. When you finish give these horses away" (forcing him to do the same). They did it and they returned. the next day, the chief again gave them horses worth ten pounds. They did as the day before. They did it five times. They ran out of

horses. Then the chief said, "Indeed, it is his son I have run out of horses. If it weren't his son, he wouldn't agree to let him give his own horses away to match the presents." Then the chief summoned his daughter. The Gralladima brought his to help. The Madaki also gave, and the Makama gave. Altogether, four wives. The chief gave a big house. The headman came and brought twenty concubines and gave to his son. There was continuous feasting.

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

Questions

(a) **(**i) Classify the above narrative. (1 mk)
(ii) What are the characteristics of the above classification? (2 mks)
(iii) What is the function of this narrative? (1 mk)

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

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

(d) Describe the character of the following:
(i) The young man (2 mks)
(ii) his father (2 mks)

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

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

GRAMMAR

A. Rewrite the following sentences as instructed.

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

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

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

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

(iii) Underline the gerund in the following sentence.
Kibet is studying but swimming is his hobby. (1 mk)

(iv) Replace the underlined word with a phrasal verb.
(a) It is not good to despise other people. (1 mk)
(b) I am currently living with my brother in Karen. (1 mk)
(c) The principal was annoyed with the three boys. (1 mk)

B. Rewrite the following sentences correcting the errors.

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

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

C. Fill in the blanks with the appropriate prepositions.

(i) He was charged …….forging property inheritance document. (1 mk)

(ii) Kamau deals ……..groceries. (1 mk)

D. Give two meanings from the sentence below.

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

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

(i) The couple has applied for a divorce over ……..……differences. (reconcile). (1 mk)

(ii) That matter is highly ……..(contest) in a court of law. (1 mk)

PRECIOUS BLOOD PRE-MOCK 2015

101/3
FORM 4
ENGLISH
PAPER 3 (Imaginative Writing and Essays Based on the Set Texts)
PRE-MOCK – MARCH 2015
TIME: 2 ½ HRS

1. Imaginative Composition

(a) Write an interesting composition ending with … I trudged wearily and regretted why I left home without permission. (20 mks)

Or

(b) Write a story to illustrate the saying "Opportunity seldom knocks twice." (20 mks)

Compulsory:

2. The River and The Source (20 mks)

"A woman is the driving force in the society." Prove the validity of this statement basing your argument on the text The River and the source by Margaret Ogola.

3. Betrayal in the city

"Corruption is the cancer that ails African countries." Justify this statement drawing illustrations from Francis Imbuga's 'Betrayal in the City'. (20 mks)

PRECIOUS BLOOD PRE-MOCK 2015

102/1
KISWAHILI INSHA
KARATASI 1
MACHI 2015
MUDA: 1 ¾

SWALI LA LAZIMA

1. Kumetokea shambulizi la kigaidi katika nchi jirani. Wewe kama balozi mwandikie raisi na watu wa nchi hiyo risala ya rambirambi.

2. Dhuluma dhidi ya wanawake imekita mizizi ndini. Jadili.

3. Mzigo wa mwenzio ni kanda la usufi.

4. …Na huo ndio ukawa mwanzo mpya.

PRECIOUS BLOOD PRE-MOCK 2015

KARATASI 102/2
KIDATO CHA NNE
IDARA YA KISWAHILI
SARUFI NA MATUMIZI YA LUGHA
MTIHANI WA KABLA YA MWIGO
MACHI 2015
SAA: 2 ½

UFAHAMU (ALAMA 15)
Soma kifungu kifuatacho kasha ujibu maswali.

Suala la mahusiano ya wanadamu katika jamii, uainishaji wake na uathihirikaji wake limewashughulisha wataalamu wa elimu jamii kwa dahari ya miaka. Suala hili huwatafakarisha wataalamu hao kutokana na umuhimu wake katika maisha ya binadamu msingi mkuu wa uainishaji wa mahusiano hayo ni kukichunguza kipindi cha mahusiano yenyewe. Yapo mahusiano baina ya waja ambayo yanachukua muda mfupi, kwa mfano saa au dakika chache, na mengine ambayo huenda yakachukua miaka ayami.

Mahusiano ya muda mrefu kabisa ni yale yanayojulikana kama mahusiano ya kudumu. Inamkinika kudai kuwa miundo ya kijamii, kisiasa na kiuchumi huweza kuyadhibiti mahusiano hayo kwa kiasi kikubwa. Watu wengi huitikadi kuwa uhusiano uliopo baina ya mtu na jamaa yake utachukua muda mrefu, na kwa hivyo ni uhusiano wa kudumu. Hali hii hutokana na uhalisi kuwa tunahusiana na jamaa zetu kwa kipindi kirefu labda tangu ukembe hadi utu uzima wetu. Uhusiano huu hautarajiwi kuvunjwa na umbali wa masafa baina yetu; tunaendelea kuwasiliana kwa barua au, katika enzi hii ya utandawazi, kwa kutumia nyenzo za teknohama kama mtandao na simu za mkononi, na kudumisha uhusiano wetu wa kijamaa. Hata hivyo, inawezekena baadhi

ya mahusiano ya kijamaa yasiwe ya kudumu. Mathalan, uhusiano uliopo baina ya mke na mume, na ambao unatarajiwa kuwa wa kudumu au kipindi kirefu, unaweza kuvunjwa kwa kutokea kwa talaka. Talaka hiyo inavunja ule uwezekano wa uhusiano wa kudumu unaofumbatwa na sitiari ya pingu za maisha.

Katika ngazi ya pili, mahusiano ya koindi cha wastani, kuna mahusiano yanayohusisha marafiki zetu maishani, shuleni au kwenye taasisi zozote zile, majirani zetu, wenzetu katika mwahali mwa kazi, washirika kwenye sehemu za ibada au za burudani na wenzetu kwenye vyama tofauti na makundi ya kujitolea. Inawezekana kudahili kuwa baadhi ya mahusiano haya, hususan baina ya marafiki na majirani huweza kuwa ya miongo na daima. Hali hii huweza kutegemea muundo na mfano wa jamii. Kwa mfano, kwa majirani wanaoishi kwenye janibu, fulani mahususi, na kwa miaka tawili bila ya kuhajiri. Uhusiano wao na majirani huweza kuwa wa kudumu. Hali hii **inasigana** na hali iliyoko kwenye maisha ya mijini. Maisha ya mijini yana sifa ya kubadilkikabadilika. Isitoshe, kutokana na mfumo wa maisha ya kibepari **yameghoshi** ubinafsi mwingi. Mawimbi ya mabadiliko na ubinafsi uweza kuumomonyoa ukuta wa uhusiano wa kudumu.

Mwelekeo wa maisha ya siku hizi ya uhamaji kutoka maeneo au viambo walikoishi watu unasababisha kupombojea kwa mahusiano ya kudumu baina yao na majirani zao. Uhusiano kati ya wenza katika mazingira ya kazi unahusiana kwa kiasi fulani na ule wa majirani. Vimbunga vya ufutwaji kazi, ubadilishaji wa kazi, hali zisizotegemewa na mifumo ya kimataifa pamoja na hata mifumo ya kisiasa huweza kuathiri mshikamano wa wanaohusika kazini.

Kiwango cha mwisho cha mahusiano ni uhusiano wa mpito au wa muda mfupi. Mahusiano ya aina hii hujiri katika muktadha ambapo pana huduma fulani. Huduma hizi zinaweza kuwa dukani, kwenye sehemu za ibada, kwenye kituo cha mafuta, kwa kinyozi, kwa msusi na kadhalika. Kuna sababu kadha zinazotufanya kuyazungumzia mahusiano ya aina hii kama ya mapito. Kwanza, uwezekano wa mabadiliko ya anayeitoa huduma hiyo ni mkubwa. Si ajabu kuwa unaporudi kwa kinyozi au msusi untambua aliyekushughulikia hayupo. Hata hivyo, kuna **vighairi** hususa pale ambapo mtoaji huduma anayehusika ni yule mmoja.

Mahusiano ya mpito yanatawaliwa na “uhusiano wa chembe chembe”. Uhusiano wa chembe chembe, bidhaa ya mfumo wa kibepari, unamaanisha kuwa kinachomshughulisha mtu ni chembe ndogo tu ya mwenzake. Chembe hiyo inaweza kuwa huduma, kwa mfano, gazeti analokuuzia mtu, kiatu anachokushonea, nguo anazokufulia, ususi anaokufanyia n.k. Mahusiano ya aina hii yametovukwa na hisia za utu na ni zao la mifumo ya kisasa na kiuchumi na kijamii. Mtu anayehusiana na mwenzake kwa misingi ya chembe ndogo tu, huenda asijali kama mwezake amekosa chakula, amefutwa kazi, amefiliwa na kadhalika.

Suala kuu tunalopaswa kujiuliza nji: Je, tunahusiana vipi na jamaa zetu, taasisi zetu, marafiki zetu na majirani zetu? Je, uhusiano wetu na raia wenzetu ni w aaina gani? Je, uhusiano wetu na nchi yetu ni wa mpito au ni wa kudumu?

(a) Taja kigezo muhimu cha kuzungumzia mahusiano. (al 1)

(b) Eleza imani ya watu kuhusu uhusiano baina ya jamaa. (al 1)

(c) Fafanua athari ya technolojia kwenye mahusiano ya watu. (al 2)

(d) Eleza sababu nne kuu za kuharibika kwa mahusiano katika maisha ya leo. (al 4)

(e) Taja sifa kuu ya mahusiano ya muda mfupi. (al 2)

(f) Je, kifungu hiki kina ujumbe gani mkuu? (al 2)

(g) Eleza maana ya maneno yafutayo kama yalivyotumiwa katika kifungu. (al 3)

(i) inasigana……

(ii) yameghoshi……

(iii)vighairi……...

UFUPISHO (ALAMA 15)

Ujambazi wa kimataifa ni tatizo lililowasumbua walimwengu kwa muda mrefu sana. Serikali nyingi zimetumia mapesa mengi kwa miaka mingi sana zikijitahidi kupambana na janga hili. Hata hivyo, fanaka haijapatikana, wala haielekei kamwe kuwa itapatikana leo au karne nyingi baadaye.

Yumkini tatizo kubwa lililopo ni kuhusu jelezi la dhanaya “ujambazi” tena “wa kimataifa”. Hili ni tatizo mojawapo na yapo mengi sana. Tatizo la pili ni kiburi. Kuna wale watu binafsi na hasa viongozi w anchi kubwakubwa na serikali zao zilizojiaminisha kuwa ujambaz ni balaa kweli, tena belua, lakini huo ni wa huko, wala hauwezi kuwagusa licha ya kuwashtua wao.

Kulingana na maoni watakaburi hao, ujambazi ni wa watu ‘washenzi’ wasiostaarabika, wapatikanao katika nchi zisizoendelea bado. Ujambazi peke wanaouona unafaa kukabiliwa ni dhidi ya mbubujiko wa madawa ya kulevya uliosababishwa na vinyagarika kutoka nchi hizo maaluni za “ulimwengu wa tatu”. Kulingana na wastaarabu wa nchi zilizoendelea, vinyangarika hivi ndivyo hasa adui mkubwa wa ustaarabu ulimwenguu na ni sharti vifagiliwe mbali bila huruma. Baada ya kusawasagwa, ulimwengu mstaarabu utazidi kutononoka na ahadi ya mbingu hapa ardhini itakamilika.

Imani ya watu hawa ya kuwa ujambazi wa kimataifa, hata iwapo upo, hauwezi kuwashtua wala kuwatingisha wao ilikuwa kamili na timamu. Ilikuwa kamili na timamu hadi hapo mwezi Septemba tarehe 11 mwaka wa 2001, ndege tatu za abiria zilipoelekezwa katika majumba mawili ya fahari, yenye urefu wa zaidi ya ghorofa mia moja na kuyatwangilia mbali. Mshtuko na kimako! Kimako kwa kuwa kabla ya siku hiyo, Wamarekani hawangeweza kudhani kwamba ingewezekana taifa lolote au mtu yeyote kuthubutu kushambulia nchi yao, taifa wasifa lililojihami barabara dhidi ya aina yoyote ile ya uchokozi kutoka pembe lo lote la dunia.

Hakuna ulimwenguni nzima, aliyeamini kuwa Marekani ingeweza kushambuliwa. Kwa ajili hiyo, mshtuko uliitingisha ardhi yote na huzuni ilitanda kote, kama kwamba sayari nzima imeshambuliwa, wala sio Marekani pekee.

Mintarafu hiyo, Marekani ilipolipiza kisasi kwa kuwaunguza waliokuwemo na wasiokuwemo kwa mabomu hatari huko Afghanistan, idadi kubwa ya watu duniani ilishangilia na kusherehekea. Kwa bahati mbaya, tafsiri ya shambulizi la minara-pacha na Newyork na lile la Pentagon, uti wa uwezo wa kivita wa Marekani, ulizorota. Kuna wengi waliodhani huo ni mwanzo wa vita vya Waislamu dhidi ya Wakristo na kwa muda, Waislamu wote wakashukiwa kimakosa kuwa ni majambazi wa kimataifa.

(a) Bila kubadilisha maana, fupisha aya tatu za kwanza. (maneno 65 – 75) (al 10, 2 za utiririko)
Matayarisho

Nakala safi

(b) Ukizingatia aya tatu za mwisho, fafanua fikira za watu na mambo yote yaliyotokea baada ya Septemba tarehe 11, 2001. (maneno 65 – 75) (al 10, 2 za utiririko)
Matayarisho

Nakala safi

MATUMIZI YA LUGHA (ALAMA 40)

(a) Silabi ni nini? (al 2)

(b) Tenga silabi katika maneno yafuatayo kisha uandike aina yake. (al 2)

(i) igwa

(ii)Oa

(c) Dhihirisha panapotiwa shadda katika maneno yafuatayo. (al 2)

(i) Galagala ……

(ii) Teketeza ……...

(d) Bainisha nomino katika sentensi zifuatazo kisha utaje aina zake. (al 2)

(i) Uhubiri wa mama huyu una mvuto mkubwa

(ii)Kabati hili limevamiwa na wadudu wengi waharibifu.

(e) Eleza matumizi ya kihusishi kwa katika sentensi ifuatayo. (al 2)

Tahadhari huandikwa kwa hati nzito.

(f) Tenga viambishi na mzizi katika neno lifuatalo. (al 2)

Siji.

(g) Unda nomino kutokana na kivumishi kifatacho. (al 1)

Tepetevu

(h) Pigia mstari na kuainisha kirai katika sentensi ifuatayo. (al 2)

Haifai kujenga karubu na nyaya za umeme

(i) Bainisha shamirisho kitondo katika sentensi ifuatayo. (al 2)

Mzalendo amemwandikia mhariri barua.

(j) Eleza kama sentensi ifuatayo ni sahili, ambatano ama changamano. (al 2)

Tulipewa ratiba ya shughuli hiyo lakini hatukuitia maanani

(k) Bainisha vishazi huru na vishazi tegemezi katika sentensi ifuatayo. (al 2)

Simu tamba ambayo ameninunulia imenirahisishia mawasiliano

(l) Kanusha sentensi ifuatayo. (al 2)

Ninamtarajia mpwa wangu awasili leo

(m) Andika katika wingi. (al 2)

Huzuni aliyokuwa nayo yatima huyu ilinitia kite na imani.

(n) Andika kinyume cha neno lililopigwa mstari. (al 1)

Mhalifu huyu alitunga mimba

(o) Bainisha matumizi ya **KI** katika sentensi ifautayo. (al 1)

Jua limekuwa likiwaka tangu Januari

(p) Bainisha matumizi ya **ka** katika sentensi ifuatayo: (al 1)

Sungura alifika nyumbani akamsalimu mkewe, akafululiza msalani akaoga

(q) Akifisha sentensi hii: (al 2)

Mmea wa pareto ni muhimu mno nchini akasema afisa wa kilimo

(r) Badilisha katika usemi wa taarifa: (al 2)

"Tutakusaidia ikiwa utashirikiana nasi," afisa wa usalama akasem.

(s) Andika katika ukubwa ukizingatia neno lililopigwa mstari. (al 1)

Aliyerembesha <u>uso</u> kwa poda.

(t) Bainisha maana mbalimbali za sentensi ifuatayo: (al 3)

Mwalimu amempigia wanafunzi simu

(u) Silabi mwambatano ni nini? (al 1)

(v) Tunga sentensi moja udhihirishe maana mbili za neno hili: <u>Rudi</u> (al 1)

(w) Pigia mstari vivumishi katika sentensi ifuatayo kisha uandike aina yake. (al 2)

Bibi huyu ni mpole uso wake wenye haya huusmamisha kila mara.

ISIMU JAMII

Maenezi ya Kiswahili Afrika mashariki kunde baada ya uhuru yalikuwa na chagamoto tele. Fafanua zozote tano. (al 10)

PRECIOUS BLOOD PRE-MOCK 2015

102/3
KISWAHILI
FASIHI YA KISWAHILI
MTIHANI WA KABLA YA MWIGO 2015
MACHI 2015
MUDA: 2 ½

SEHEMU YA A

LAZIMA

FASIHI SIMULIZI (ALAMA 20)

(a) Toa sifa mbili za fasihi simulizi. (al 2)

(b) Taja na ufafanue aina mbili za hadhira wa fasihi simulizi. (al 2)

(c) Hadithi za kisalua ni nini? (al 1)

(d) Fomyula ya kuhitimsha ina umuhimu gani? Toa hoja mbili. (al 1)

(e) Eleza sifa mbili za hadithi za mazimwi. (al 2)

(f) Ni nini dhima ya misimu katika jamii? (al 2)

(g) Ushairi simulizi ni nini? (al 1)

(h) Taja sifa mbili za hodiya. (al 2)

(i) Eleza sifa tatu za mwigizaji bora. (al 3)

(j) Eleza sifa mbili za ngoma. (al 2)

(k) Tofautisha kati ya malumbano ya utani na maapizo. (al 2)

SEHEMU YA B: RIWAYA

KIDAGAA KIMEMWOZEA: KEN WALIBORA

1. "We bwana unafikiri natumia petroli nini?"

   (a) Uweke usemi huu katika muktadha wake. (al 4)

   (b) Huku ukitoa mifano, eleza mbinu mbili za lugha zilizotumiwa na mwandishi katika dondoo hili. (al 4)

   (c) Eleza migogoro yoyote sita inayojitokeza katika riwaya ya Kidagaa Kimemwozea. (al 12)

2. Udhalimu ni maudhui makuu katika riwaya ya Kidagaa Kimemwozea. Thibitisha. (al 20)

SEHEMU C: HADITHI FUPI

DAMU NYEUSI: KEN WALIBORA & S. A. MOHAMMED

1. "Wenzangu wote, mwafahamu hadithi ya kobe?"

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

   (b) Fafanua sifa 4 za msemaji. (al 4)

(c) Kwa kiurejelea dondoo taja mbinu inayojitokeza katika hadithi inayorejelewa na msemaji. Kisha ufafanue kwa mifano mwafaka. (al 12)

2. Kwa kurejelea hadithi zifuatazo jadili maudhui ya:

(i) Tamaa na ubinafsi katika Samaki wa Inchi za Joto.

(ii) Ushirikina katika Gilasi ya Mwisho Makaburini.

SEHEMU D: TAMTHILIA
MSTAHIKI MEYA: TIMOTHY AREGE
(i) "Si vyombo vya habari, si wanasiasa. Si wasomi."

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

(b) Taja na ufafanue mbinu ya lugha katika dondoo hili. (al 2)

(c) Fafanua sifa zozote nne za msemaji. (al 4)
(d) Umaskini ni tatizo kuu katika cheneo. Tetea kauli hii huku ukitoa mifano mahususi. (al 10)

(iii) Mwandishi wa Mstahiki Meya ametumia mbinu ya majazi kufanikisha ujumbe wake. Jadili. (al 20)

SEHEMU E: MASHAIRI
Shairi
Mapenzi kitu ajabu, yakutia bumbuwazi
Yakufanya uwe bubu, kujibu huwa huwezi
Shubiri kwako zabibu, na vitamu huvipwezi.

Wamkuta kaemewa, asemayo hayajuwi
Aumba akiumbuwa, aona haruwiruwi
Vigumu kumuopowa, na kwa ngisi kumvuwi.

Hukumbuka ya zamani, yote walofanyiana
Nyumbani barabarani, ayaona kama jana
Akili yake na nyani, aruka ingagongana.

Wangoja nyota ya jaha, kutwa wewe unahaha
Mawazo yako silaha, akukwaaye usaha
Usifanyiwe msaha, waugeuza karaha.

Kalelewa kaleleka, utani kwake ni mwiko
Njiani yeye na kaka, hapokei mauliko
Ghadhabu zake zap aka, hapendi maziko.

Na Hashil S. Hashil

1. Andika kichwa mwafaka cha shairi hili. (al 1)
2. Eleza umbo la shairi hili. (al 4)
3. Tambua tamathali za usemi alizozitumia msanii. (al 4)
4. Taja na ufafanue uhuru wa mshairi. (al 2)
5. Andika ubeti wa tatu kwa lugha tutumbi. (al 4)
6. Fafanua mambo matatu yanayohusishwa na mapenzi. (al 3)
7. Taja nafsi katika shairi hili. (al 1)
8. Taja toni ya mshairi huyu. (al 1)

Chaguo shairi moja kasha ujibu maswali.

Mtazameni ….nguzo ya Afrika
Mtumwa wa watumwa waliridhiya
Amekita jembe lake akilisujudia
Kwa tambo lililoumbuka na kusekehea
Uso ukifuka ukata ulojifanya tabia
Na machungu ya maonevu alovumilia.

Moyo wake mzito ulokokomaa kama kuni
Haujui tena kutarajia wala kutamani
Umekufa ganzi, kutohisi raha huzuni

Basi iteni fikira mambo ukiyafikiri
Siku hamaki yake itakapochafuka kama bahari
Siku ukweli wa hali yake utapodhihiri

Umejiandalia vipi…
Huo mkono ulomuumbua na kumkausha
Kizo pumzi zilomzima taa ya maisha
Kumfunga kizuizi , gizani kumtowesha
Ni jawabu gani alowekewa na wakati
Kuipoza ghadhabu ya kiu isiyawa katiti
Kuikiwaza hamaki ya njaa hii ya dhati
Jnjaa ya maisha itakayo kushibishwa.

1. Lipe shairi hili kichwa mwafaka. (al 2)
2. Taja nafsi neni katika shairi hili. (al 2)
3. Andika mifano ya uhuru wa mshairi katika shairi hili. (al 4)
4. Eleza mbinu za lugha zilizotumiwa. (al 4)

5. Eleza sifa zilizomkabili mzungumzaji. (al 4)
6. Tambua mishororo miwili mishata. (al 2)
7. Fafanua umuhimu wa mistari mishata. (al 2)

PRECIOUS BLOOD PRE-MOCK 2015

BIOLOGY

PAPER 1 (THEORY)

TIME: 2 HOURS

1. (a) Define the term 'parthenocarpy'. (1mk)

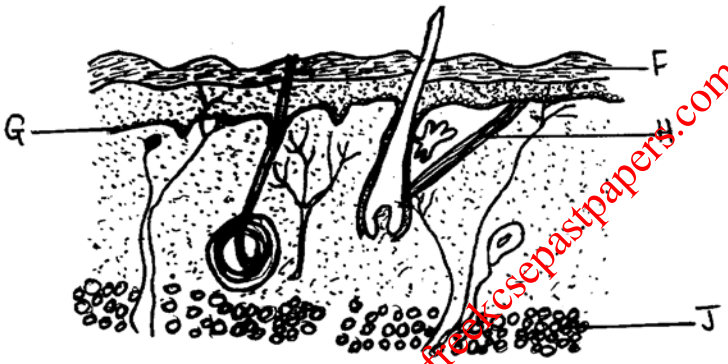
(b) Name **two** plant growth hormones that promote parthenocarpy. (2mks)

2. Name the organelle that performs each of the following functions in a cell

(i) Protein synthesis. (1mk)

(ii) Transport of cell secretions. (1mk)

3. The diagram below shows a longitudinal section of mammalian skin.



a) Name the parts labelled **F** and **G.** (2mrks)

F _____

G _____

b) State **one** function of each of the parts labelled **H** and **J** (2mrks)

H _____

J _____

4. Other than carbon (IV) oxide, name other products of anaerobic respiration in plants (2mks)

5. (a) Name the fluid that is produced by sebaceous glands. (1mk)

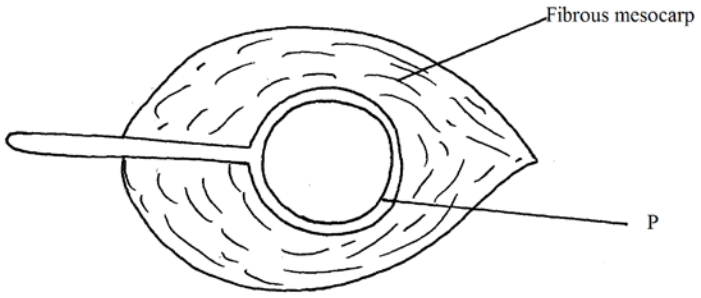
(b) State **two** functions of sweat on the human body. (2mks)

6. (a) State **two** characteristics that are used to divide the phylum arthropoda into classes. (2mks)

(b)Name the class with the largest number of individuals in the phylum Arthropoda. (1mk)

7. Why are people with blood group O referred to as universal donors? (1mk)

8. The diagram below represents a longitudinal section of a fruit



(a) Name structures labeled P (1mk)

(b) Describe two adaptations of the fruit for its mode of dispersal (3mks)

(i) Mode of dispersal

(ii) Adaptation

9. (a) What causes the following diseases?

(i) Diabetes mellitus. (1mk)

(ii) Diabetes insipidus. (1mk)

b) An individual shows the symptoms for diabetes mellitus, how would you determine in the school laboratory whether they are positive for the condition? (3mks)

10. In an attempt to estimate the number of weaver birds in a small woodland 435 were captured , marked and released. Three days later, 620 were captured 75 of which were marked.

a) What is the name of the sampling method described above? (1mk)

b) Calculate the approximate size of the weaver bird population in the woodland. (2mks)

c) Give one disadvantage of this method. (1mk)

11. Identify the nucleic acid whose base sequence is shown below.

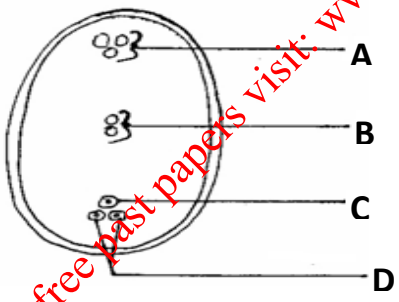
G-A-C-U-A-G-A-C-G

i) Identify the type of nucleic shown above (1mk)

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

iii) Write the base sequence of a DNA strand for the nucleic acid shown above (1mk)

12. The diagram **below** shows a mature embryo sac of a flowering plant.



(a) Name the parts labeled **A** and **B** (2mks)

A_____

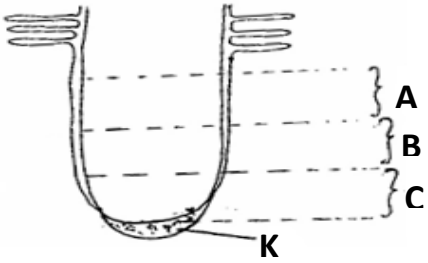
B_____

(b) What is the function of the structure labeled B? (1mk)

13. (a) Name the tissues that transport water in plants. (1mk)

(b) State why the tissue above is said to be dead. (1mk)

14. The diagram **below** shows regions of growth in a root. Study it and answer the questions that follow.



(a) Name the zone labeled **B**

(b) State the function of part **K** (1mk)

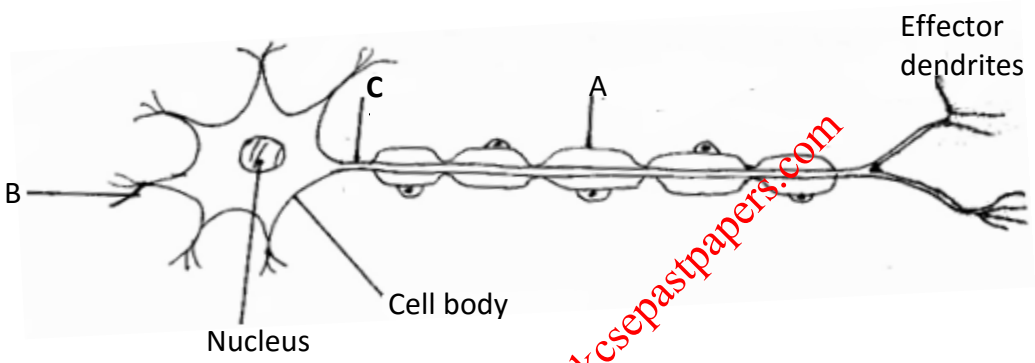
(c) State three characteristics of the cells found in zone **C** (3 mks)

15. The enzymes pepsin and trypsin are secreted in their inactive forms. Explain why they are secreted in these inactive forms. (1mk)

16. (a) Give two examples of natural selection in action. (2mk)

b) List three features that make man the most dominant species on earth. (3mks)

17. Study the diagram **below** of a neurone in human being.



(a) Identify the neurone. (1mk)

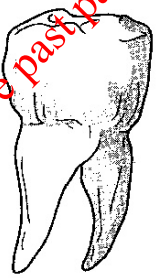
(b) Name the parts labeled.

A _____ (1mk)

B _____ (1mk)

(c) Using an arrow indicate the direction of movement of a nerve impulse along the neuron (1mk)

18. Study the diagram of the mammalian tooth **below** and answer the questions that follow.



(a) Identify the tooth. (1mk)

(b) Give a reason for your answer in (a) above. (1mk)

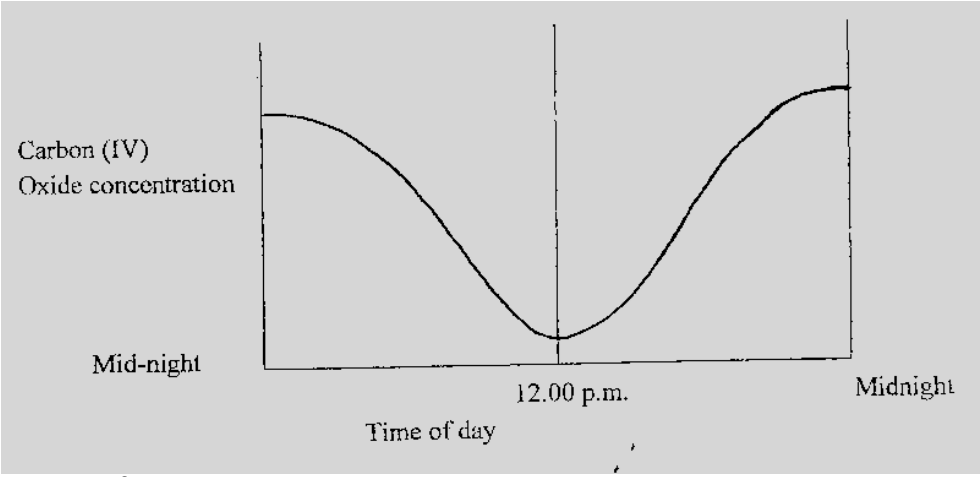
(c) State **one** adaptation of the tooth to its function. (1mk)

19.a) Name the part of the brain that regulates breathing (1mk)

b) Give two ways through which the body responds to increased concentration of carbon (IV) oxide in the blood (2mks)

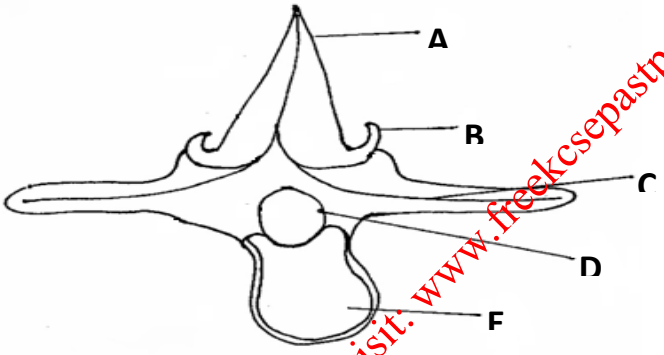
c) Name the structures in pneumatophores through which gaseous exchange occurs. (1mk)

20. The concentration of carbon (IV) oxide in a tropical forest was measured during the course of 24 hours period from mid-night to mid-night.



Account for the results obtained at mid day. (2mks)

21. The diagram **below** represents the anterior view of a certain vertebra.



(a) With a reason, identify the type of vertebra shown **above**. (2mks)

Name the parts labeled.

(i) **A** _____ (1mk)

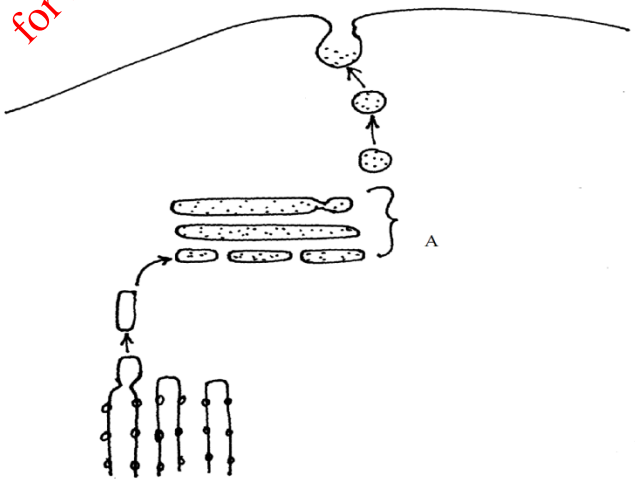
(ii) **D** _____ (1mk)

(c) State the function of part **E**. (1mk)

22. (a) State one similarity between diffusion and osmosis (1mk)

(b) State two factors that can reduce the rate of active transport (2mks)

23. Study the diagram below and use it to answer the questions.



a) Identify the organelle marked A. (1mk)

b) Give three functions of the organelle named in (a) above (3mks)

24. It was found that during germination of pea seeds 9.3cm^3 of carbon (iv) oxide was produced while 9.1cm^3 of oxygen was used up.

a) Calculate the respiratory quotient (RQ) of the reaction taking place. (2mks)

b) Identify the type of food substance being metabolized. (1mk)

25. What is the biological importance of the larval stage during metamorphosis (2mks)

PRECIOUS BLOOD PRE-MOCK 2015

231/2
BIOLOGY PAPER 2 (THEORY)
PRE MOCK - MARCH 2015
TIME: 2 HOURS

SECTION A (40 Marks)

Answer all questions in this section in the spaces provided.

1. In human beings, a **downward pointed frontal hairline** ("windows peak") is a heritable trait. A person with windows peak always has at least one parent who has this trait; where as persons with **frontal hairline** may occur in families in which one or even both parents have windows peak. Using **W** and **w** to symbolize genes for this trait

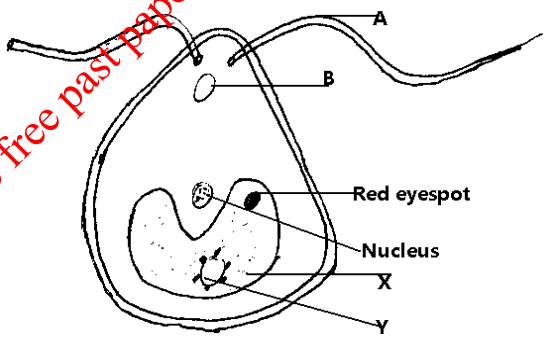
(a) Determine the F1 generation if a homozygous windows peak male parent is married to a homozygous frontal hairlined female parent (4mks)

(b) State two causes of variations (1mk)

c) Name two sex linked genetic disorders affecting human females and males (2mks)

(d) What is genome

2. The diagram below shows an organism obtained from an aquatic ecosystem



(a) **State** the kingdom in which the organism belongs. (1mk)

(b) **Name** the parts labeled (1mk)

B

Y (1mk)

(c) **State** the functions of the following parts

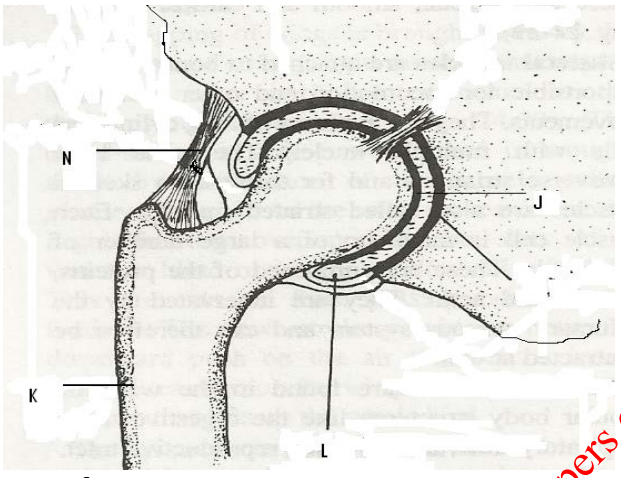
A (1mk)

X (1mk)

Z (1mk)

(d)Explain briefly why the organism is described as eukaryotic (2mk)

3a) The diagram below shows some of the features of a synovial joint. Study the diagram carefully and answer the questions that follow.



(a) Name the type of synovial joint. (1 mark)

(b) Name the parts labeled J, and L (2 marks)

J ……...

L ……..

(c) State **two** roles of the part labeled L. (2 marks)

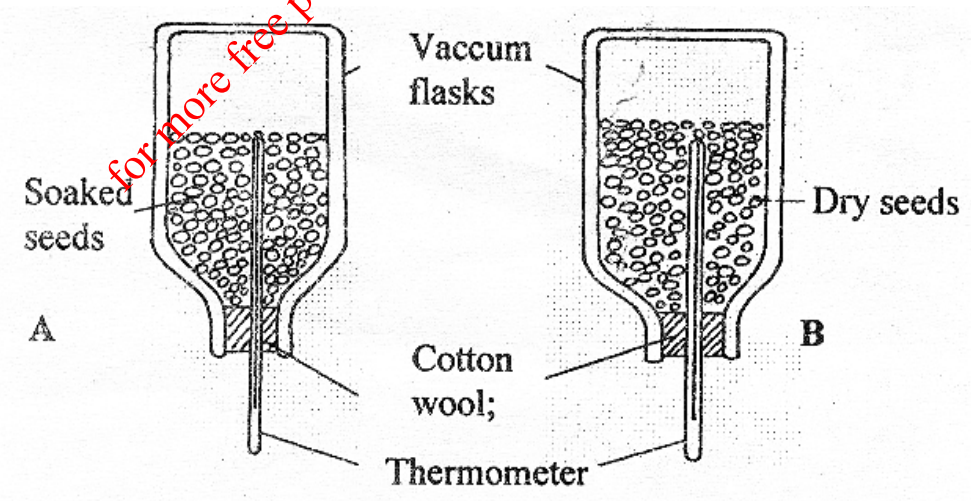
(d) Suggest **one** advantage of this type of joint. (1 mark)

b) State how the following tissues are adapted to provide mechanical support in plants (2mks)

i) Parenchyma

ii) Collenchyma

4. A student set up an experiment using soaked and dry seeds as shown below



a) State the objective of this experiment (1mk)

b) State the observations made in each of the flask after 24 hours (2mks)

c) Account for the observation made in (b) above (2mks)

d) Suggest why vacuum flasks were used in this experiment (1mk)

e) What alteration would you make in the set-up to make the results more reliable (1mk)

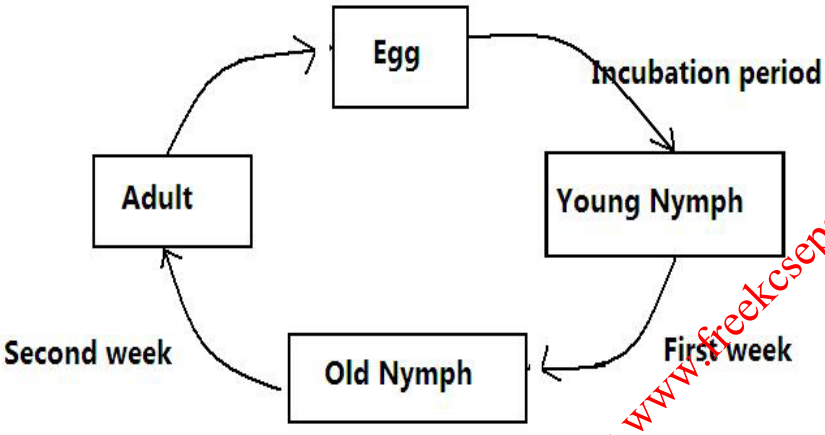
f) Why should the seeds be washed with antiseptic/10% formalin? (1mk)

5 a) Explain how the following meristematic tissues contribute to growth of higher plants

i) Vascular cambium (2mks)

ii) Cork Cambium (2mks)

b) The diagram below shows a life cycle of a cockroach



a) Name the hormone that would be at high concentration during.
First week (1mk)

(ii) Second week (1mk)

b) Name the structure that produces hormone in a (ii) above (1mk)

c) Name the series of stages through which the nymph undergoes to reach adult stage (1mks)

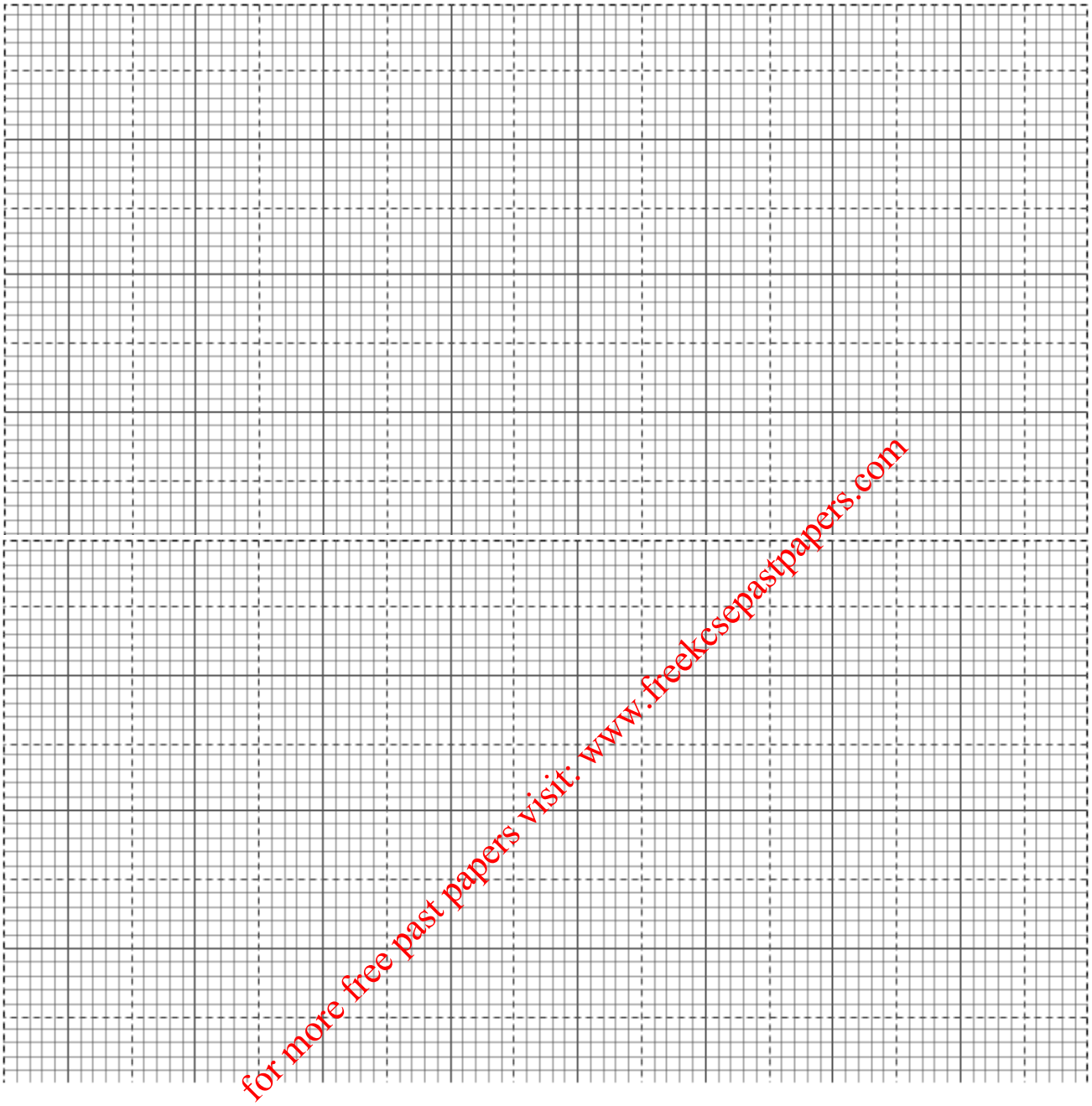
SECTION B (40 Marks)

Answer question 6 (Compulsory) and either question 7 or 8 in the spaces provided.

6. The menstrual cycle is a sequence of events repeated monthly in the female production system. The table below shows the concentration of oestrogen and progesterone hormones and body temperatures of female against time.

Time in days	Oestrogen mg/100cm of blood	Progesterone mg/100cm^3 of blood	Temperature in 0^oc
1	20	0	36.4
2	20.5	0	36.6
3	25	0	36.7
4	27.5	0	36.8
5	30	0	36.7
6	32.5	0	36.6
7	35	0	36.8
8	40	0	36.7
9	48	0	36.6
10	56	0	36.8
11	64	0	36.7
12	72	0	36.6
13	80	0	36.4
14	170	20	36.3
15	140	50	36.6
16	80	80	37.0
17	70	130	37.2
18	65	170	37.0
19	60	160	37.1
20	65	150	37.15
21	130	130	37.2
22	140	110	37.1
23	130	90	37.0
24	100	70	37.1
25	80	50	37.2
26	60	20	37.0
27	20	0	36.4

a). Using the same axis draw graphs of oestrogen and progesterone against time/days (8mks)



b) State the possible event taking place in the uterus during the first week? (1 mark)

c) State the events taking place in the ovary between day 1 and day 13. (2 marks)

d) Account for the sudden increase in the progesterone concentration between day 14 and day18. (2 marks)

e) Account for the change in temperature between day 14 and 17. (1 mark)

f) Account for the change of the curve of progesterone between day 19 and 27. (2marks)

State the function of the following.

Ovary (1mark)

(i) Progesterone (1 mark)

(ii) Oestrogen (1 mark)

7 a) Describe how the following evidences support the theory of organic evolution: geographical distribution, fossil records and comparative anatomy (10mks)

b) Explain tropic responses in plants and their survival values (10mks)

8 a) Describe the structural adaptations of mammalian heart to its Functions (10mks)

b) Explain the role of osmosis in organisms (10mks)

PRECIOUS BLOOD PRE-MOCK 2015

231/3
BIOLOGY
PAPER 3 (PRACTICAL)
March - 2015
TIME: 1¾ HOURS

1. You are provided with liquids labelled **Q1** and **Q2.** Spare about 10ml of the liquids for part (a) of this question. Using a piece of thread, tie tightly one end of the visking (dialysis) tubing. Open the other end of the tubing and half fill it with liquid **Q1**. Tightly tie this end. **Ensure there is no leakage in both ends**. Immerse the tubing in a beaker containing liquid **Q2**. Leave the set up for at least 30 minutes.

   a) Using iodine and Benedict's solution provided; test for the food substance in liquids **Q1** and **Q2**. Record the procedure, observation and conclusion in the table below (6mks)

LIQUID	PROCEDURE	OBSERVATION	CONCLUSION
A			
B			

After at least 30 minutes, remove the visking tubing from the beaker and wash the outside of the tubing thoroughly to remove traces of liquid **Q2**.

   b) Using the same reagents, test the food substance in liquid Q1 in the visking tubing. Record your observations and conclusion in the table below. (2mks)

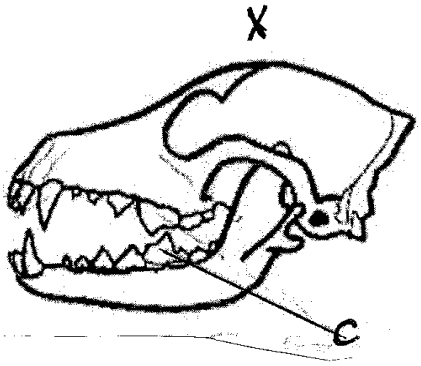
Liquid	Observation	Conclusion
Q1		

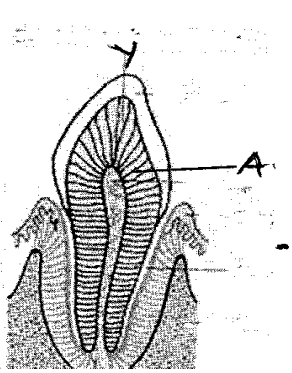
(i) Name the physiological process being demonstrated by this experiment. (1mk)

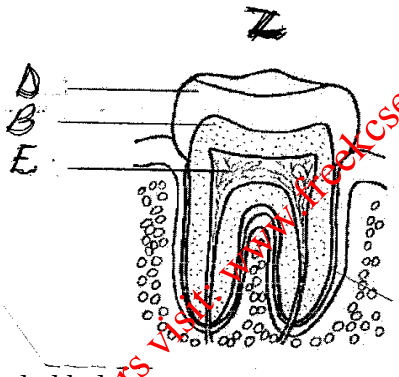
(ii) Name two parts of the human body where the process named in (c) (i) above takes place. (2mks)

   c) Account for the results obtained after carrying a second food test on liquid Q1. (2 mks)

2. You are provided with diagrams of specimens taken from a mammal. Study them carefully and answer the questions that follow.



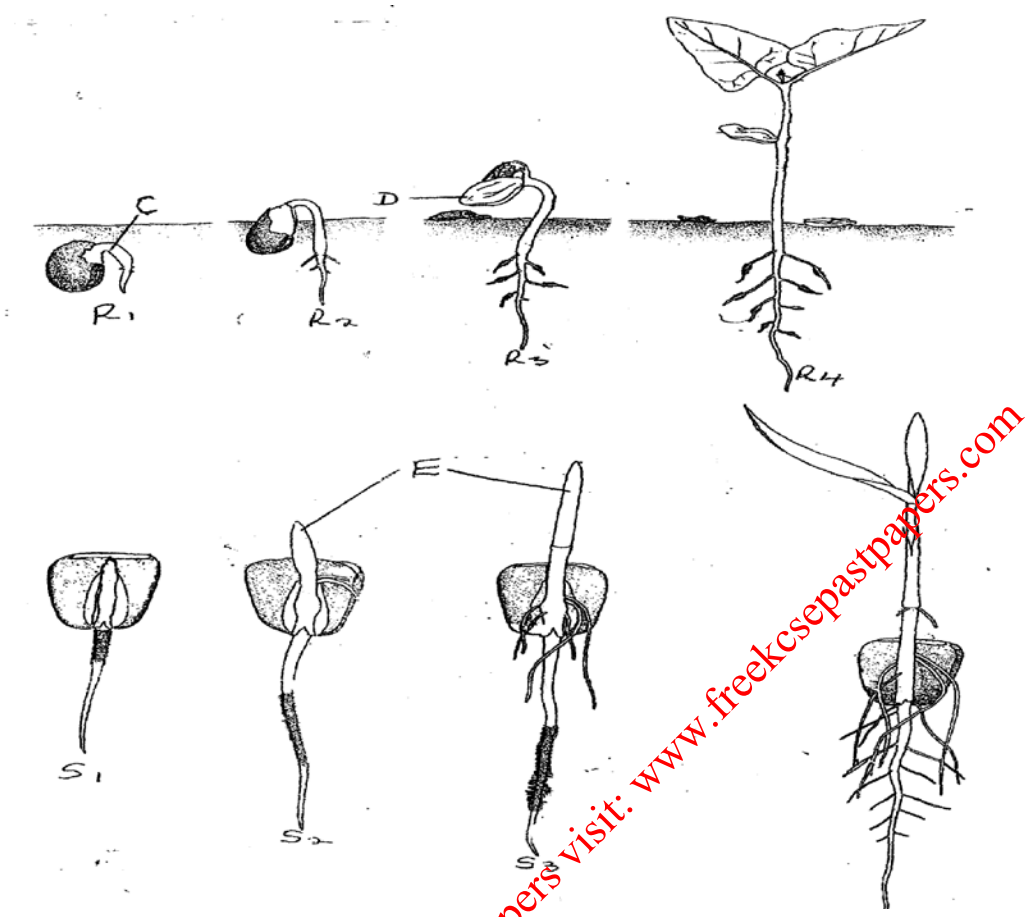




(a) Identify the diagrams labeled below. (3 marks)
X.....
Y.....
Z.....
(b) State the diet of the animal from which diagram x was taken and give a reason for your answer. (1 marks)
(i) Diet.....
(ii) Reason (2 marks)
(c) Name the parts labeled (3 marks)
A.....
B .....
D.....

(d) How are the following structures adapted to their functions (2 marks)
D.....
C.....
(e) State the function of the parts labeled. (2 marks)
(f) State **one** structural difference between Y and Z (1 mark)
3. Examine the seedling below and use them to answer the question that follow.

a) Name the part labeled C,D, E and state their importance for the seedling.



C: ..... (1mk)

Importance (1mk)

D. ..... (1mk)

Importance (1mks)

(ii) E..... (lmk)

Importance. (lmk)

(b) The R series of seedlings on the roots later in its life:

(i) What is the name of the swelling: (lmk)

(ii) Name the organisms that would be found in the swellings (1mk)

(iii) Explain the relationship that exists between the named organisms and the plant. (1mks)

(c) (i) State the types of germination exhibited by R series of the seedlings. (1mk)

(ii) Give a reason for your answer in (c) (i) above. (1mk)

(d) State any two external factors necessary for germination. (2mks)

PRECIOUS BLOOD PRE-MOCK 2015

Biology confidential

Each candidate will require the following:

50ml distilled water labelled Q1.

One ripe tomato labelled specimen J.
2 pieces of sewing machine cotton thread 9 15cm long each)

Benedict's solution

One mature pod from leguminous plant labelled specimen K.

Iodine solution,

One mature (dry) fruit of Bidenspilosa(Black jack)

Labelled specimen L.

10cm long piece of visking tubing (wet) and preferably of 3cm width.

100 ml solution (made of 2% starch and 20% glucose) labelled Q2.

Means of heating /Flame (candle or Bunsen burner)

100ml beaker

A measuring cylinder – upto 10ml

Distilled water.

6 test tubes

Tap water / water in a wash bottle

Test tube rank

Test tube holder

A sharp razor blade / scalpel

'Note'

Guide lines for the preparation of solution Q2

To prepare 1 litre of solution Q2, dissolve 20g starch in about 500ml distilled water, dissolve 200g glucose in the solution.

Make up the total volume of the mixture 1 litre by adding distilled water.

PRECIOUS BLOOD PRE-MOCK 2015

233/1
FORM 4
CHEMISTRY
PAPER 1
TIME: 2 HOURS

1. The figure below shows the cooling curve for water is gaseous state.

i) Using the same axis draw a curve obtained if the water used in the experiment was impure. (1mk)

ii) Name the process taking place between

S and T (1mk)

U and V (1mk)

2. On addition of a few drops of aqeous sodium hydroxide to solution M a white precipitate forms which dissolves on a addition of excess sodium hydroxide. A white precipitate forms when solution M is reacted with sodium chloride solution. Suggest the identity of the cation present and explain. (2mks)

3. 1g of sodium hydroxide is added to 30cm^3 of 1M HCl. How many cm^3 of 0.1M KOH solution will be needed to neutralize the excess acid. (3mks)

4. Describe how you can prepare crystals of magnesium chloride starting with 50cm^3 of 2M magnesium hydroxide. (3mks)

5.Use the following information to answer the questions that follow

$\Delta H_{lattice}$ $Mgcl_2$ = -2489 KJ/ mol $^{-1}$

$\Delta H_{hydration}$ Mg^{2+} = - 1891 kJ/ mol

$\Delta H_{hydration}$ Cl^- = -384 kJ/ mol

a) Calculate the heat of solution of magnesium chloride. (2mks)

b)Draw an energy level diagram for the dissolving of magnesium chloride. (2mks)

6.The reaction between hydrochloric acid and potassium dichromate can be used to demonstrate a reversible reaction. The ionic equation is given below

$2Cro_4^{2-}{}_{(aq)}$ + $2H^+{}_{(aq)}$ $Cr_2O_7{}^{2-}{}_{(aq)}$ + H_20 (l)

Yellow orange

Explain the observation that would be made when dilute hydrochloride acid is added to the equilibrium mixture. (2mks)

7.The table below gives the rate of decay for a sample of a radioactive element P

Mass of P (g) number of days

48 0
18 90
6 180

a)Determine its half-life (2mks)

b)Complete the following nuclear equation. (1mk)

$$^{233}_{91}Pa + {}^{0}_{-1}e \longrightarrow$$

8. Study the following flow chart. Use it to answer the question that follow

a)Identify (3mks)

i) Solid A

ii)Solid B

iii)Gas E

b)Name the reagents used in step (2mks)

i) I

ii) II

9.i)Name two salts responsible for permanent hardness of water. (2mks)

ii)Explain the precipitation method used to remove water hardness. (1mk)

10. When steam was passed over heated charcoal as shown in the diagram, below, hydrogen and carbon (II) oxide gases were formed.

a)Write the equation for the reaction which takes place. (1mk)

b)Name two uses of carbon (II) oxide gas which are also uses of hydrogen gas. (2mks)

11.a) State and explain the observations made when a few drops of concentrated Sulphuric (vi) acid is added to sucrose (C_{12}, O_{22},O_{11}) (2mks)

b)Using an equation show how the above reaction takes place. (1mk)

12.Students from Sunshine Secondary School suspected that some water contained either sulphate or sulphite cons. Explain how the ion present can be determined. (3mks)

13.A mixture of ethane, oxygen and nitrogen are ignited. On cooling the residual gas occupied 58 cm^3 when shaken with aqeous alkali, the volume was reduced to32 cm^3. A further 18 cm^3 of the product was absorbed by alkaline pyrogallo. Calculate the composition of the original mixture. (C = 12, H = 1, N = 14, O = 16 and molar volume at r.t.p = 24dm3. (4mks)

14.0.24g of a divalent metal x dissolves in 50 cm^3 of 0.25 M sulphuric acid. The resulting solution required 5.0 cm^3 of 1.0 M sodium hydroxide solution to neutralize the excess acid. What is the reactive atomic mass of x.

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

a)Identify liquid x (1mk)

b)Write an equation for the reaction that occurs in the flask. (1mk)

c)Describe the confirmatory test for oxygen gas. (1mk)

16.When zinc metal is reacted with a solution of hydrogen chloride gas in water there is effervescence. When the experiment is repeated with a solution of hydrogen chloride gas in methylbenzene there is no observable change. Explain this observations. (3mks)

17. Compare the rate of diffusion of carbon dioxide (CO_2) & ozone (O_3) at the same temperature. (C = 12, O = 16) (3mks)

18. Starting with Lead metal describe how to prepare a solid sample of Lead (II) Sulphate salt. (3mks)

19.Given the following reaction

$HCN_{(aq)} + NaOH_{(aq)} \longrightarrow NaCN_{(aq)} + H_2O_{(l)}$

T_1 = initial temperature of solutions before additions = 18.0°C

T_2 = final temperature of solution at neutralization = 19.2°C

50 cm^3 1M HCN

50 cm^3 1M NaOH

Calculate Molar enthalpy of neutralization of hydrogen cyanide (3mks)

20.Compound K reacts with sodium hydroxide as shown

a)What type of reaction is represented by the equation. (1mk)

b)To what class of organic compounds does K belong. (1mk)

c)How is M separated from aqueous mixture of L and M. (1mk)

21.Draw a diagram to show how an aluminium spoon can be electroplated with pure copper. (2mks)

22.An ion of element Z can be represented as shown below,

Use the information to answer the questions that follow

a)Identify the period in which the element belong. (½mk)

b)Write the electron configuration of the ion of Z (½mk)

c)What would be the nature of the solution of the chloride of Z if dissolved in water. (1mk)

23. What is P^H scale (1mk)

ii) State whether the values of the following solution are strong or weak acids and bases.

P^H = 8 (½mk)

P^H = 5 (½ mk)

P^H = 2 (½ mk)

P^H = 13 (½mk)

24.Draw the structure of;

a) i) Hydroxonium ion H_3O^+ (1mk)

ii) Aluminium oxide (Al = 13, 0 = 8) (1mk)

b) Aluminium chloride has a melting point of 120°C while Aluminium oxide has a melting point of 2977°C. In terms of structure and bonding explain how the differences come about. (2mks)

25.State the use of the following laboratory apparatus

i)

ii)

26.The diagram below shows heating of Lead nitrate

i)State the observations made in the above experiment (2mks)

ii) Write an equation for the reaction that takes place. (1mk)

27.Give two differences between nuclear reactions and chemical reactions. (2mks)

28. 3.1 g of an organic compound containing carbon, hydrogen and oxygen only produced 4.4 g of carbon oxide and 2.0 g of water on complete combustion:

a)Calculate its empirical formulae (2mks)

b)Calculate its molecular formulae if its formulae mass is 62. (2mks)

29. Two cleansing agents are represented below

i) $R - COO^-Na$ and ii) $R - OSO_3^-Na^+$

a) Name the detergents (2mks)

i)

ii)

b) Select one of the detergents that would be suitable for washing in water containing magnesium chloride. Explain. (2mks)

30.Use the data below to calculate the enthalpy change for the reaction below (3mks)

$CH_{4(g)} + 2O_{2(g)} \longrightarrow CO_{2(g)} + 2H_20_{(l)}$

Bond	**Energy (KJ)**
C – H	314
O = O	296
C = O	149
H – O	283

PRECIOUS BLOOD PRE-MOCK 2015

233/2
CHEMISTRY PAPER 2
(Theory)
TIME: 2 HRS

1. (a) Calculate the oxidation number of chromium Cr $(H_2O)_6^{3+}$ (2 mks)

(b) The table below shows the standard reduction potentials for four half-cell. Study it and answer the questions that follow:

Half reaction	**E^0 (volts)**
$Au^{3+} + 3e \longrightarrow Au_{(s)}$	+1.50
$Cu^{+} + e^- \longrightarrow Cu_{(s)}$	-0.52
$Pb^{2+} + 2e^- \longrightarrow Pb_{(s)}$	-0.13
$Fe^{2+} + 2e^- \longrightarrow Fe_{(s)}$	-0.44
$Cr^{3+} + Cr_{(s)} \longrightarrow Cr_{(s)}$	-0.74
$Al^{3+} + 3e \longrightarrow Al_{(s)}$	-1.66
$Mg^{2+} + 2e^- \longrightarrow Mg_{(s)}$	-2.37
$Rb^{+} + e^- \longrightarrow Rb_{(s)}$	-2.98

(i) Identify the strongest reducing agent. (1 mk)
(ii) Write the equation for the redox reaction which takes place between (Cu / Cu^{+}) and (Al/Al^{3+}). (1 mk)
(iii) Draw the cell obtained in (ii) above. (3 mks)
(iv) Calculate the emf for the cell above. (2 mks)

(c) A current of 2.75 A is measured during recharging with an external potential of 2.0 V using $Cd^{2+}_{(aq)}$ solution. After 5 minutes charging, how many moles of Cadnium will be redeposited. Hence calculate the mass redeposited. (Cd = 112, F = 96500C). (3 mks)

(d) State two uses of electrolysis (2 mks)

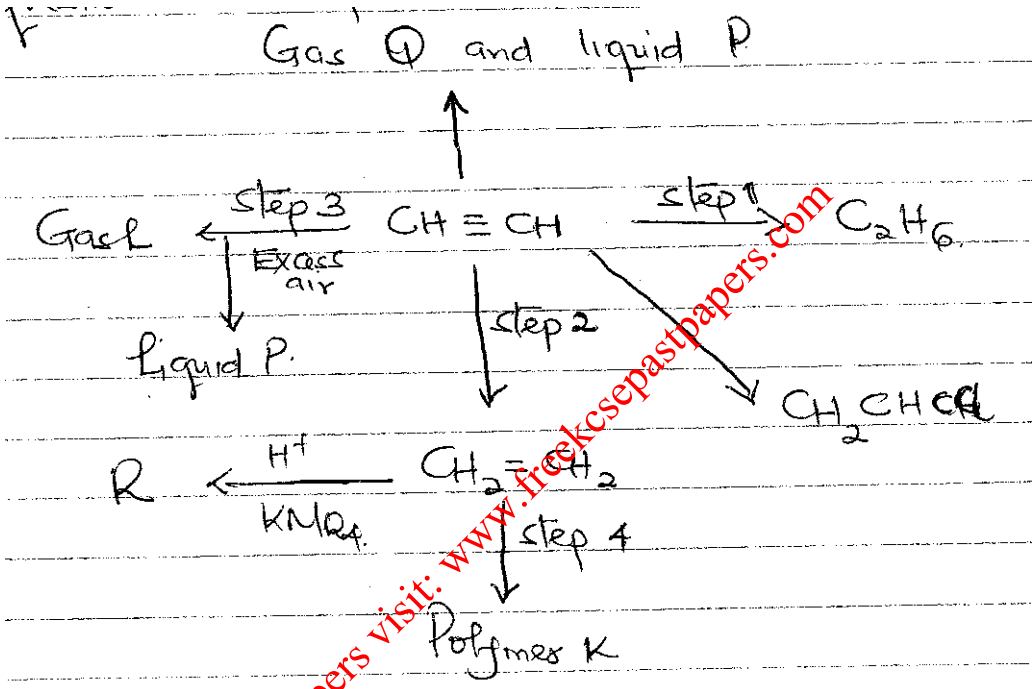
2. Petrol (octane) a long hydrocarbon alkane can be converted to ethane and hydrogen gas mixtures as follows.

$$C_8H_{18\,(l)} \longrightarrow 4\,C_2H_{4\,(g)} + H_{2\,(g)}$$

(a) What do we call the process by which the products are obtained from octane? (1 mk)

(b) Unleaded fuel is now widely used and has to be used in modern cars fitted with catalytic converters. State the merits of unleaded petrol. (1 mk)

(c) Study the scheme given below and answer the questions that follows:



(i) Name the reagents used in: (4 mks)

Step 1……

Step 2……

Step 3……

Step 4……

(ii) Identify substance. (3 mks)

L……

P……

Q……

N……

K……

R……

(iii) Draw the structural formula of:

R (1 mk)

K (1 mk)

(d) Ethanol from glucose can be converted to ethane as shown below:

$C_6H_{12}O_6 \xrightarrow{1} C_2H_5OH \xrightarrow{2} CH_2=CH_2$

(i) Name the process that takes place in 1. (1 mk)

(ii) Name the reagent used in step 2. (1 mk)

(e) Compound A and B have the same molecular formulae $C_3H_6O_2$. Compound A liberates carbon iv oxide on addition of sodium carbonate while compound B doesn't. Compound B has a sweet smell. Draw the possible structures of: (2 mks)

(i) A

(ii) B

3. (i) (a) Write the chemical name for rust. (1 mk)

(b) State any two ways of preventing rusting. (2 mks)

(c) Give a reason why vehicles based in Mombasa rust faster than those based in Limuru. (1 mk)

(d) Oxygen to obtained by fractional distillation of liquid air. Name two other gases which are obtained during the distillation. (1 mk)

(ii) In an experiment to determine the solubility of sodium chloride, $5cm^3$ of a saturated solution of sodium chloride of mass 5.35g were placed in a volumetric flask and diluted to a total of 250 cm^3. 25 cm^3 of the dilute solution reacted completely with $24cm^3$ of 0.1 $moldm^3$ silver nitrate solution. Calculate:

(a) Moles of silver nitrate in $24cm^3$ of solution. (1 mk)

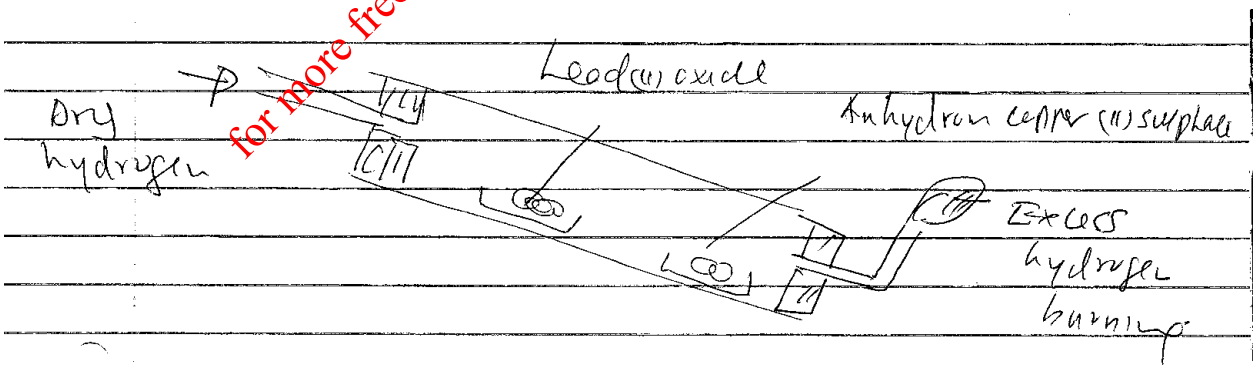
(b) Moles of sodium chloride to $25cm^3$ of solution. (1 mk)

(c) Moles of sodium chloride in 250 cm^3 of solution. (1 mk)

(d) Mass of sodium chloride in 5 cm^3 of the original saturated sodium chloride solution (1 mk)

(e) Solubility of sodium chloride. (1 mk)

(iii) The apparatus below was used to investigate the effect of dry hydrogen gas on hot lead (II) oxide.



(a) What is observed in the combustion tube at the end of the experiment? (2 mks)

(b) Write an equation for the reaction between hydrogen gas and lead (II) oxide. (1 mk)

(c) Why should the tube be slanting? (1 mk)

(d) State any 2 precautions to be observed when doing this experiment. (2 mks)

4. The table below shows volumes of nitrogen (IV) oxide gas produced when different volumes of 1M nitric (V) acid were reacted with 2.07g of lead at room temperature.

Volume of 1M nutirc (V) acid	Volume of nitrogen (IV) oxide gas (cm^3)
5	60
15	180
25	300
35	420
45	480
55	480

(a) Give a reason why nitric (IV) is not used to prepare hydrogen gas. (1 mk)

(b) On the grid provided plot a graph of the volume of the gas produced against the volume of the gas produced against the volume of the acid. (3 mks)

(c) Use your graphs to determine:

(i) Volume of nitrogen (IV) oxide produced when 30 cm^3 of 1M nitric (V) acid were reacted with 2.07g of lead. (1 mk)

(ii) Volume of 1M nitric (V) acid that would react completely with one mole of lead. (1 mk)

(d) Calculate the number of moles of:

(i) 1M nitric (V) acid that reacted with one mole of lead. (1 mk)

(ii) Nitrogen (IV) oxide produced when one mole of lead reacted with excess nitric (V) acid. (Molar gas volume = 2400 cm) (1 mk)

(e) Use the answers to d above and write the equation for the reaction between lead and nitric(V) acid. (1 mk)

(f) Explain how the rate of the reaction between lead and nitric (V) acid would be affected if the temperature of the reaction mixture was raised. (2 mks)

5. (a) When ammonia gas is passed through copper (II) sulphate solution a blue precipitate is formed which dissolves to give a deep blue solution. Write an ionic equation for the formation of:

(i) The blue precipitate (1 mk)

(ii) The deep blue precipitate. (1 mk)

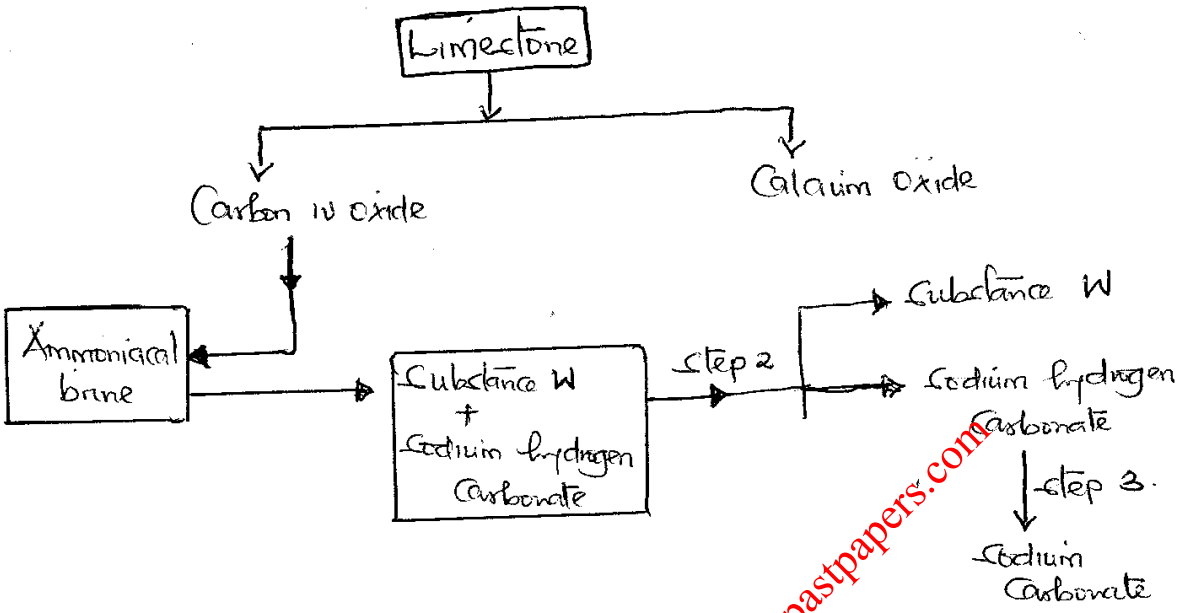
(b) Aluminum oxide is amphoteric.

(a) Explain the term amphoteric. (1 mk)

(b) Name and give the formula of other two amphorteric oxides. (2 mks)

6.

6.



(a) What is the chemical name for limestone. (1 mk)

(b) Identify substances: (2 mks)

(i) X - ……

(ii) W - ……

(c) Name the process taking place in: (2 mks)

(i) Step II……

(ii) Step III……..

(d) Write a chemical equation for the reaction of:

(i) Leading to formation of substances W and sodium hydrogen carbonate. (1 mk)

(ii) Taking place in step (III). (1 mk)

(e) Carbon (V) oxide and ammonia are required during the solvay process. Write equation to show how ammonia is recycled. (1 mk)

(f) Name the other product of solvay process and state one use of it. (1 mk)

(g) State two uses of sodium carbonate. (2 mks)

7. The grid below represents past of the periodic table. Study it and answer the questions.

				B			C	
K	F		D			E	A	Y
	G							

(a) Identify the family name to which element F and G belong. (1 mk)
(b) Name the type of bond formed when C and F react. (1 mk)
(c) Write the formulae of the oxide formed when D reacts with oxygen. (1 mk)
(d) What type of oxide is formed in (c) above. (1 mk)
(e) Compare the atomic radii of F and D. Explain. (2 mks)
(f) Element F burns in air to form two products. Write 2 equations for the two products formed.
(g) State two uses of element K and its compounds. (2 mks)

PRECIOUS BLOOD PRE-MOCK 2015

233/3
CHEMISTRY
PAPER 3
TIME: $2\frac{1}{4}$ HOURS

1. ***You are provided with:***

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

You are required to determine:

i) The solubility of solid **P** at different temperatures

ii) The value of **n** in the formula $(HX)_n \bullet 2H_2O$ 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 70^0C 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 **1**.

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.

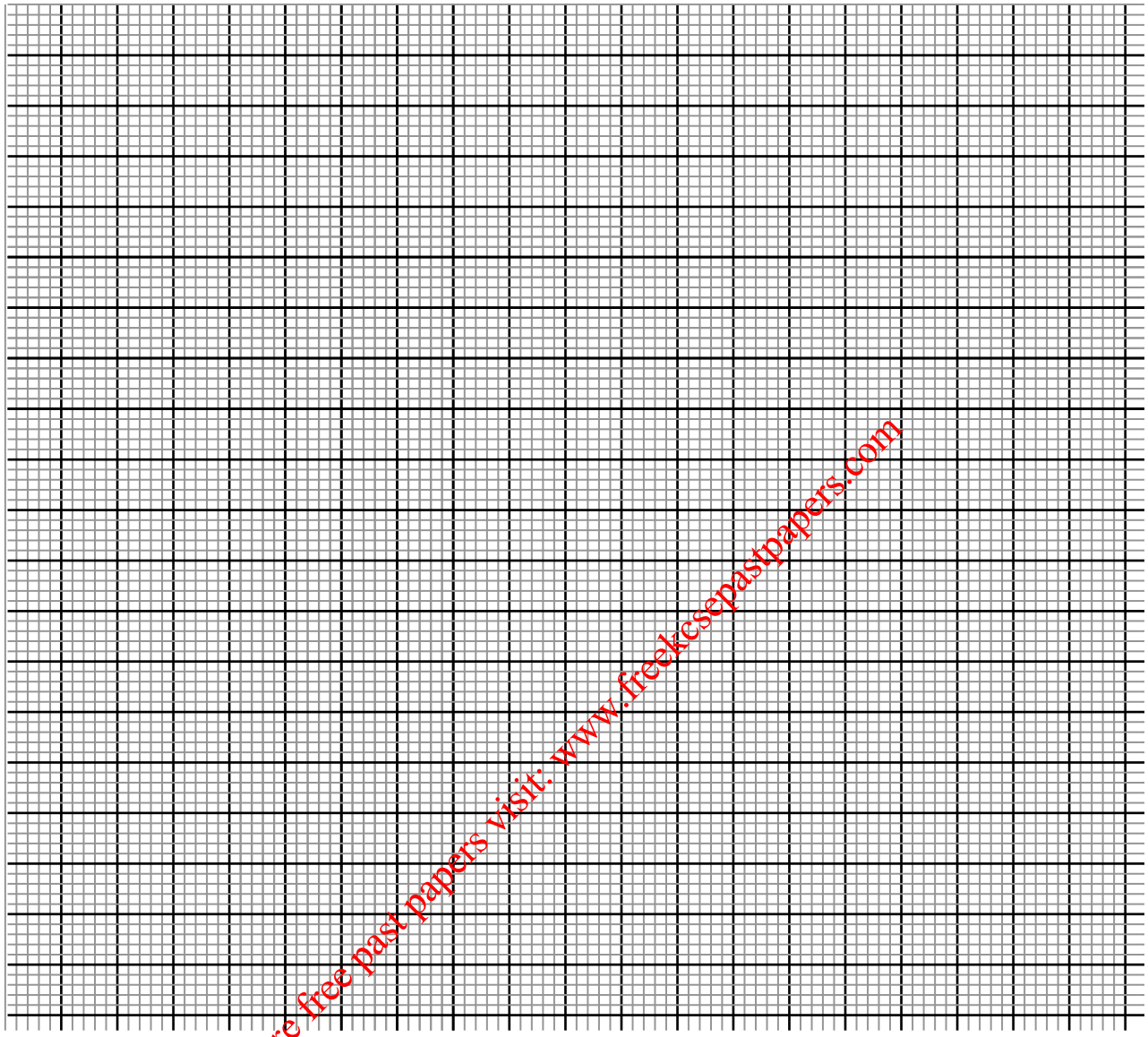
e) Repeat the procedure (c) and (d) four more times, heating the solution in a water bath and record the temperature in the table. ***Retain the contents of the boiling tube for use in procedure II***.

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(100g) of water at a particular temperature. (6 mks)

Table I

Volume of water in the boiling tube (cm^3)	**Temperature at which crystals of solid P first appear (^0C)**	**Solubility of solid P (g/100g) of water**
4		
6		
8		
10		
12		

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 100cm^3 of water. (1mk)

iii) Determine the solubility of solid **P** at 55^{0}C (1mk)

iv) Other than temperatures give two other factors which affect solubility. (2mks)

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** reacted with the sodium hydroxide given that the relative formula mass of **P**, $(HX)_n \bullet 2H_2O$ is 126. (3mks)

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 $(HX)_n \bullet 2H_2O$ (3mks)

2 a) You are provided with solid **M** carry out the tests below and record your observations and inferences.
Place a spatula of solid **M** in a boiling tube, add 10 cm^3 of distilled water and shake well until all the solid dissolves.

Observations	Inference
1mk	1 mk

i) To about 1 cm^3 of the solution add 2 M sodium hydroxide drop wise until in excess.

Observations	Inference
1mk	1 mk

ii) Place 1cm ^{3} of the solution in a test tube and add 2 to 3 drops of 2 M sulphuric (VI) acid.

Observations	Inference
1mk	1 mk

iii) To about 1 cm^3 of the solution add 4-5 drops of lead (II) nitrate solution.

Observations	Inference
1mk	1 mk

b) You are provided with solid **N**. Carry out the test in (a) and (b)and fill the table below.

i) Place one third of **N** in a metallic spatula and burn in a non- luminous flame.

Observations	Inference
1mk	1 mk

ii) Dissolve all of the remaining **N** in about 10 cm^3 distilled water in a boiling tube.

a) Place 2cm^3 of solution in a test tube and add 2 drops of acidified potassium manganate (VII)

Observations	Inference
1mk	1 mk

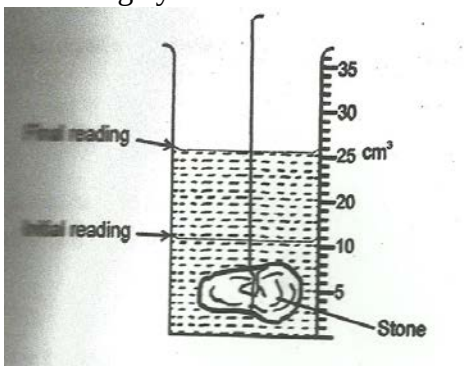
b) To 2 cm^3 of the solution, add all the solid sodium hydrogen carbonate.

Observations	Inference
1mk	1 mk

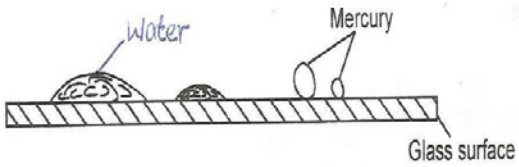
PRECIOUS BLOOD PRE-MOCK 2015

Physics 232/1
Paper 1
Time: 2 hours

1.The figures below shows the level of water before and after a stone was immersed into the measuring cylinder If the mass of the stone is 200g, determine its density. (3mks)



2. The figure below shows the shapes formed when drops of water and mercury are placed on the surface of a clean glass plate



Explain the difference in the shapes.

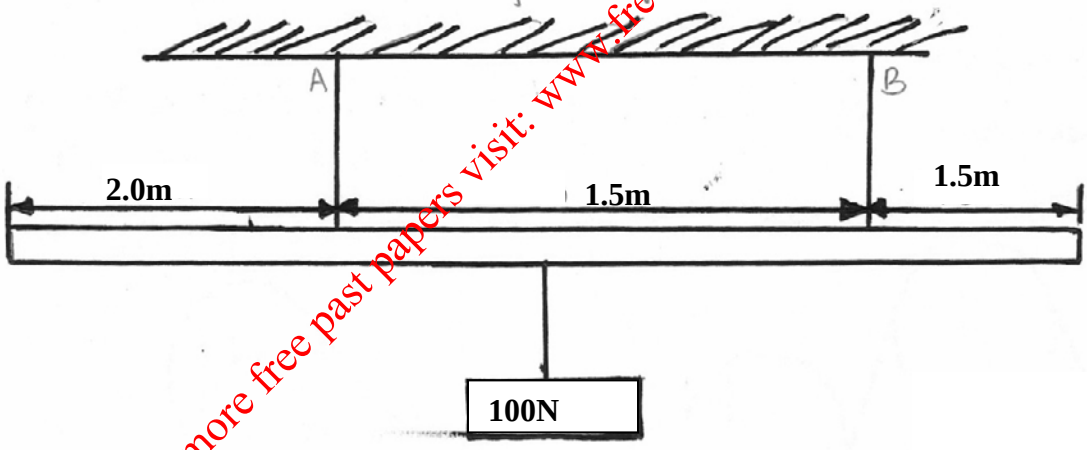
Explain the difference in the shapes. (1mk)

3. Explain why air is not used as a brake fluid. (1mk)

4.) Use kinetic theory to explain pressure law. (1mk)

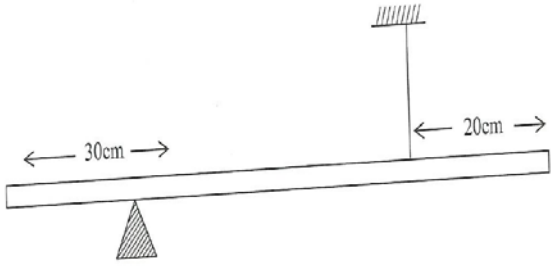
5.) In an oil drop experiment, it was found that one oil drop spread on water to form a patch of diameter 0.8cm and thickness 2.0×10^{-6}mm. Calculate the radius of the drop. (2mks)

6.)A uniform wooden plank weighing 50N and 5m long is suspended by two ropes A and B, 1.5m apart. A is 2m from one end and B is 1.5m from the other end as shown in figure below. A concrete block of weight 100N is suspended from the centre of the plank



Calculate the tension T_A in string A (2mks)

7. The figure below shows a uniform bar of length 1.4m pivoted near one end. The bar is kept in equilibrium by a string as shown.



Given that the weight of the bar is 1.5N, determine the tension in the string. (3mks)

8. The table below shows results of an experiment carried out to study properties of a spring.

Force (N) added	0	5	10	15	20
Length of spring (cm)	10	11	12	13	14

State with a reason whether the experiment was done within elastic limit of a spring. (1mk)

9. A beaker is filled completely with water. A spoon full of common salt is added slowly. The salt dissolves and the water does not overflow. State the reason why water does not overflow. (1mk)

10. In a vacuum flask, the walls enclosing the vacuum are silvered on the inside. State the reason for this. (1mk)

11. A bullet is fired horizontally from a platform 15m high. If the initial speed is 300m/s, determine the maximum horizontal distance covered by the bullet. (3mks)

12. A high jumper usually lands on a thick soft mattress. Explain why. (1mk)

13. If the rate of flow of water in the tube is 0.0001 m^3/s. Determine the length of tube it will take its flow in 3 seconds through a cross-section area of $5cm^2$. (3mks)

14. The ice and steam points of a certain graduated thermometer are found to be 15cm apart. What is recorded in ^0c when the length of the mercury thread is 3cm above the ice point? (2mks)

15. a) Define heat capacity and state its SI units. (2mks)

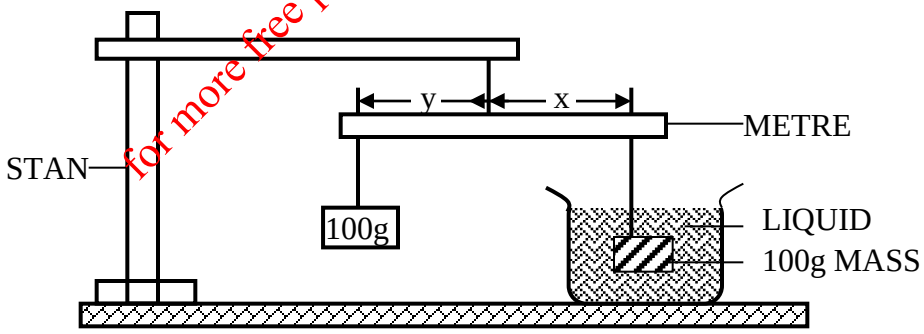
b) i) 200g of ice at -10^oc was slowly heated by an immersion heater rated 200w. The graph below shows how temperature varied with time.

ii) Given that the specific heat capacity for ice is 2100J/kg/k, specific latent heat of fusion for ice 340000J/kg and the specific heat capacity for water is 4200J/kg/k. Calculate the corresponding times for pints B and C. (4mks)

iii) What factors affect the melting point of a solid. (2mks)

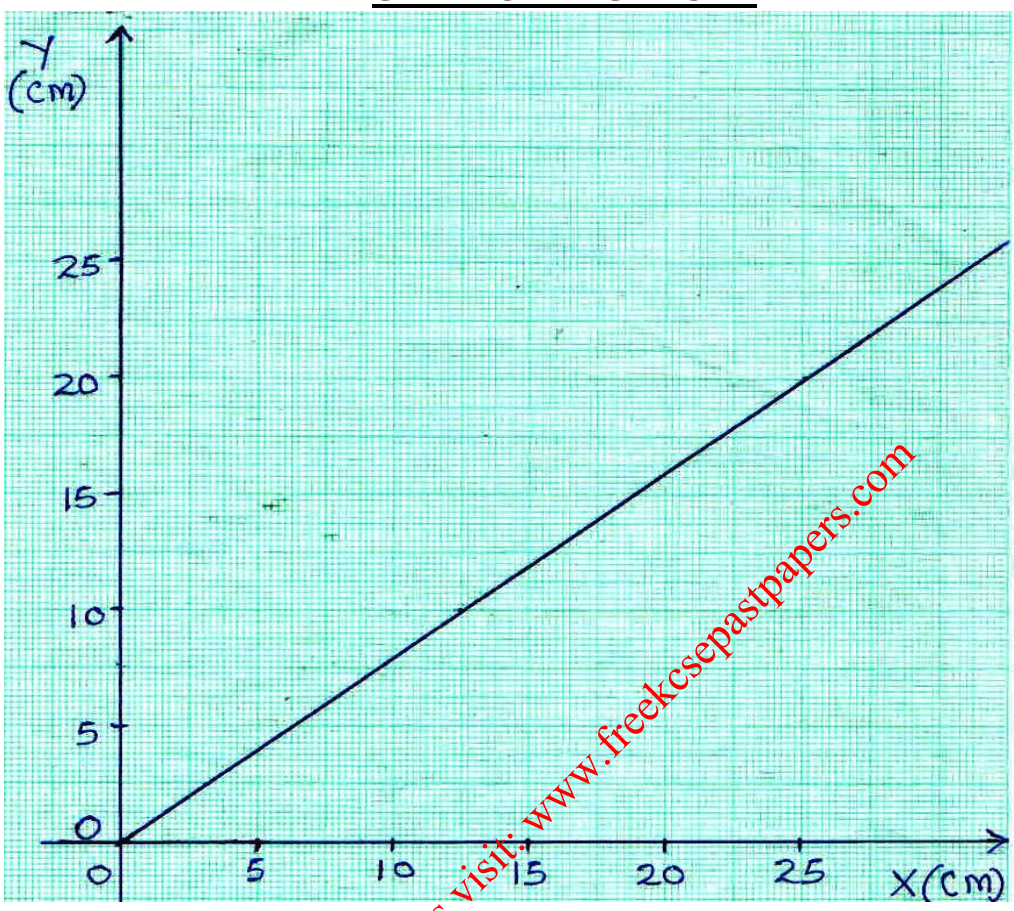
c) i) A sauce pan of mass 0.7kg containing 0.5kg of water is 20oc it takes 5 minutes before the water starts to boil. Find the rate at which heat is supplied to the water by the burner. Take specific heat capacity of the sauce pan as $600Jkg^{-1}k^{-1}$. (3mks)

16. (a) In an experiment to determine the relative density of liquid A, the following set up was used.



The distance x of the mass in liquid A was measured for various length, y of an identical mass of equilibrium and a graph of y against x was drawn as shown in the grid below.

GRAPH OF Y AGAINST X



(i) Determine the gradient, S, of the graph. (2 Marks)

(ii) If S = $\frac{F}{W}$, where F is the apparent weight of mass in liquid A and W is the actual weight of the mass.
Calculate the value of F and the upthrust u. (3mks)

(iii) Determine the relative density of the liquid a, Given that the weight of the 100g mass in water was 0.9N. (3mks)

b) A balloon's fabric weighs 10N and has a gas capacity of $2M^3$. If the gas in the balloon weighs 2N and air has density 1.29kg/m3, Find the resultant force on the balloon when it is floating in air. (3marks)

17. a) A body having uniform motion in a circular path always accelerates. Explain. (1mk)

b)the figure below shows the path of an object of mass 200g tied to a string 0.2m and being whirled in a vertical circle at a linear speed of 10m/s.

If the string gets cut when the object reaches point Q,

i) indicate with an arrow on the diagram, the path direction it is likely to move. (1mk)

ii) Determine the force that cuts the string at point Q (3mks)

iii) Calculate the minimum tension (3mks)

c) A body is whirled in a horizontal circle at a frequency of 5Hz. Determine its angular velocity. (3mks)

SECTION B

18.a) State the law of conservation of energy. (1mk)

b)What energy transformation takes place when a car battery is used to light a bulb? (2mks)

c) A pulley system has two pulleys on the lower block and one pulley on the upper block. In order to raise the load of 6N, an effort of 2N is applied.

i)Draw a sketch to show the pulley system. (2mks)

ii)Calculate the efficiency of the pulley system. (3mks)

iii)If the lower block weighs 0.4N. What friction force oppose the motion. (3mks)

19. a) Define (1mk)

i) Velocity ratio (1mk)

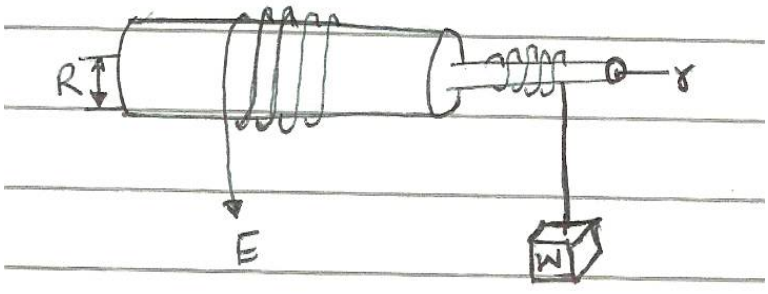
ii)

ii)Mechanical advantage (1mk)

iii)Efficiency (1mk)

b)A small pump develops an average power of 80W. It raises water from a borehole to a point 15m above the water level. Calculate the mass of water delivered in one hour. (3mks)

c)The figure shows a wheel and axle being used o raise a load W by applying an effort 'E'. The radius of a large wheel is 'R' and that of a small wheel is 'r'.



i)Show that the velocity ratio (V.R) of this machine is given by R/r. (2mks)

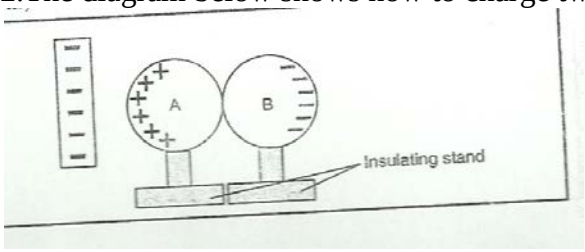
ii)If r = 5cm and R = 8cm, determine the effort 'E' required to raise a load of 40N, given the efficiency of the ma chine is 85%. (3mks)

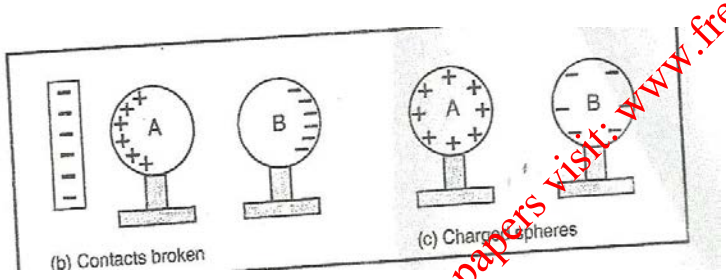
PRECIOUS BLOOD PRE-MOCK 2015

232 / 2
PHYSICS
PAPER 2
PRE MOCK– MARCH / APIRL 2015
2 HOURS

1.State the laws of reflection of light. (2mks)

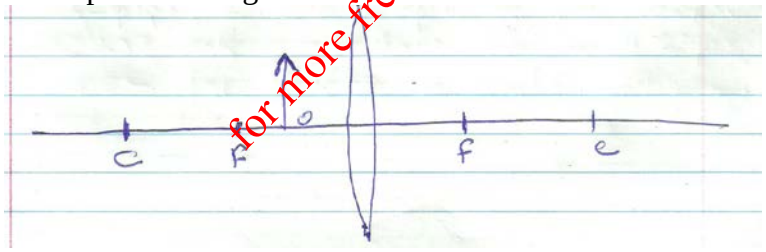
2.The diagram below shows how to charge two spheres simultaneously.





On the diagram indicate the charge acquired by spheres A and B in step two. (2mks)

3.Complete the diagram below to show how the lens forms the image. (1mk)

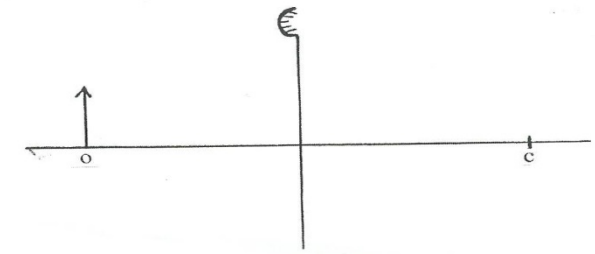


4.)Name one detector of infra-red radiations (1mk)

5) Using a diagram explain how soft iron keepers are used to retain magnetism in stored magnets(2mks)

6) A battery is rated 30Ah,determine the amount of current it can supply in 20 minutes (2mks)

7) Sketch rays to show the image formed by the object in the following. (2mks)

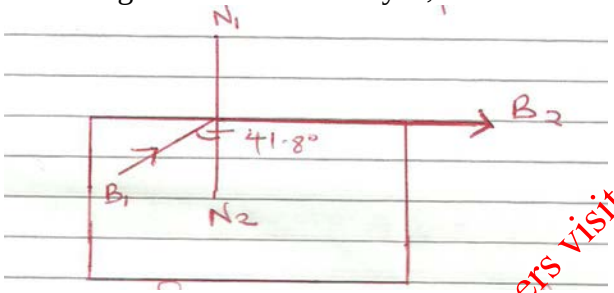


8.Name any one common property of electromagnetic waves. (1mk)

9.The figure below shows a conductor carrying current placed within the magnetic field of two magnets. Complete the diagram by showing the field pattern and the direction of force F that acts on the conductor. (2mk)

10.What is meant by donor impurity in semiconductor. (1mk)

11.The figure below shows ray B, incident through a glass block to air interface.



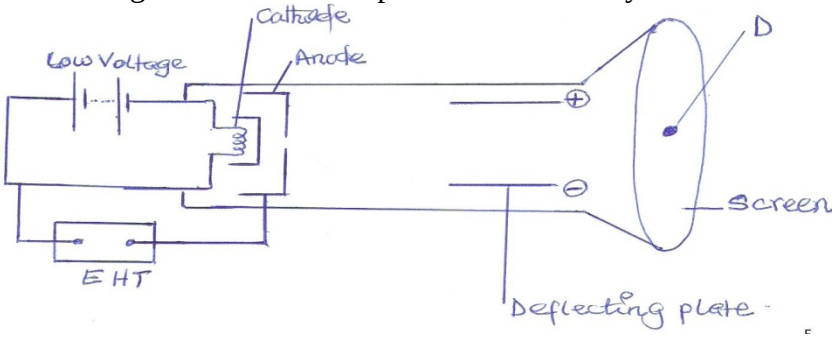
B2 is the emergent ray of B1. Determine the refractive index of the glass block.

12.A pendulum bob takes 0.5 seconds to move from its mean position to a maximum displacement position. Calculate its frequency. (2mks)

13.A potential difference of 50kv is applied across an x-ray tube. Given that the charge of an electron e = 1.6×10^{-19} c and the mass of an electron $m_e = 9.1 \times 10^{-31}$ kg, calculate the velocity of the electron. (3mks)

14.An electric heater is rated 3kw and 240v when in operation. Calculate the cost of running the heater for 5 hours if the cost per kwh is ksh.6.70. (2mks)

15.The diagram below shows part of a cathode ray tube.



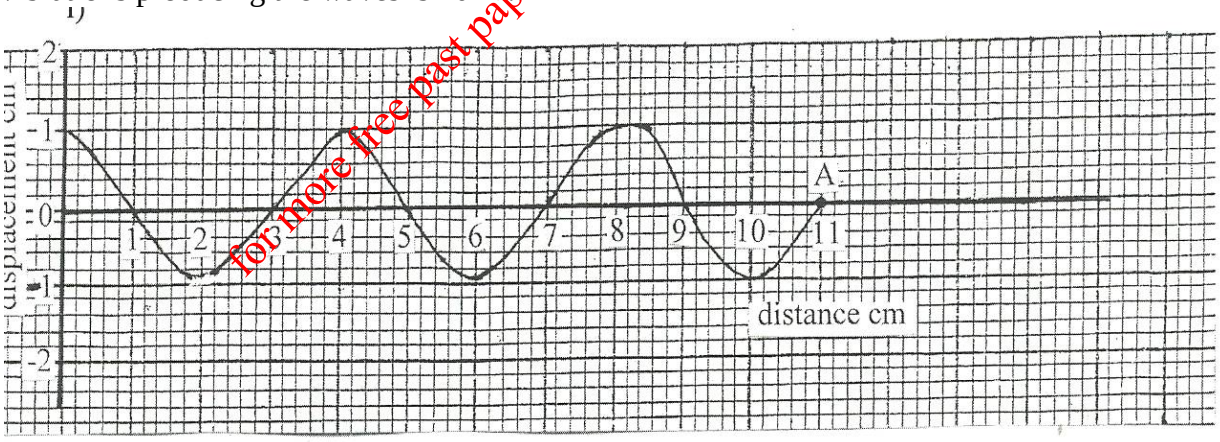
i)Explain how the cathode rays are produced. (2mks)

ii) On the same diagram draw the path of the cathode rays to the spot produced on the screen at D. (2mks)
iii)Explain the observation made on the spot when the connection to the high voltage supply are interchanged so that the anode is made negative. (2mks)
iv)What behavior of cathode rays shows that they move on a straight line. (2mks)
v)Name the components of an electron gun of a cathode ray oscilloscope. (3mks)

16.a) In a photoelectric effect experiment, a certain surface was illuminated with radiation of different wavelengths and stopping potential determined for each wavelength. The following results were obtained:

Wavelength (x 10^{-7} m)	3.77	4.05	4.36	4.92	5.46
Stopping potential, (V_s), (V)	1.35	1.15	0.93	0.62	0.36
Frequency (x 10^{14}Hz)					

i)complete the table above given that c = 3.0 x 10^8 m/s (1mk)
ii)Plot a graph of stopping potential (Y-axis) against frequency (4mks)
iii) Determine plank's constant, h and the work function of the surface given that $eV_s = hf - hf_o$, where e = 1.6 x10^{-19} C (3mks)
b) A surface whose work function Q = 6.4 x 10^{-19} J is illuminated with light of frequency 3.0 x10^{15} H_z. Find the maximum velocity of the emitted photo electrons (use value of h obtained in **a(ii)** above) (3mks)
17. a) State the difference between longitudinal and transverse waves. (1mk)
b)The figure below shows a transverse wave travelling along X-axis. T he frequency of the vibrations producing the waves is 20Hz



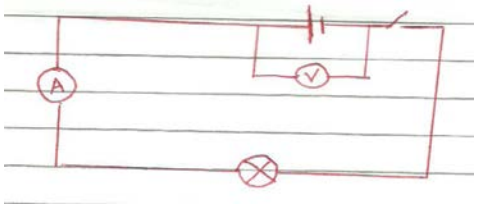
i)Determine the amplitude in SI unit. (1mk)
ii) If it takes 0.1375 seconds for the wave to move from O to A, determine the speed of the wave. (2mks)
ii)Calculate the periodic time of the wave. (2mks)
c i)State two factors affecting the speed of sound in air. (2mks)

ii)A man makes a loud sound and hears the echo of the sound after 1.25 seconds. If the speed of sound in air is 330ms-1, calculate the distance between the man and the wall causing the echo. (3mks)

18. Three resistors of resistance 2Ω, 4Ω and 6Ω are connected together in a circuit. Draw a circuit diagram to show the arrangement of the resistor which gives

a) Effective resistance of 3Ω (2mks)

b) In the figure below, the voltmeter reads 2.1v when the switch is open. When the switch is closed, the voltmeter reads 1.8v and the ammeter reads 0.1A.



Determine :-

i) The e.m.f of the cell (1mk)

ii) The internal resistance of the cell. (3mks)

iii) The resistance of the lamp. (2mks)

c. Calculate the length of a wire required to make a resistor of 0.5Ω , if the resistivity of the material is 4.9×10^{-7} Ω m and the cross sectional area is 2.0×10^{-6} m2. (3mks)

19.ai)Define half-life of a radioactive substance. (1mk)

ii)The following radioactive equation, find the value of N and Z.

b) The half-life of radioactive substance is 4 years. How long will the sample take for the activity to decrease to 1/32 of its original value. (3mks)

c)The diagram below shows the cross section of a diffusion cloud chamber used to detect radiation from radioactive source.

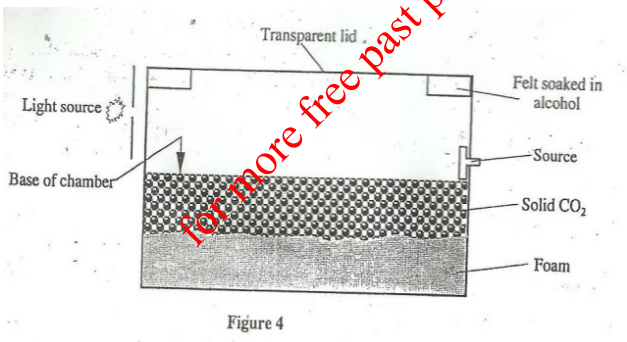


Figure 4

i)State one function of each of the following Alcohol. (1mk)

Solid carbon dioxide (1mk)

ii)When radio actions from the source enter the chamber some white traces are observed. Explain how these traces are formed and state how the radio action is identified. (4mks)

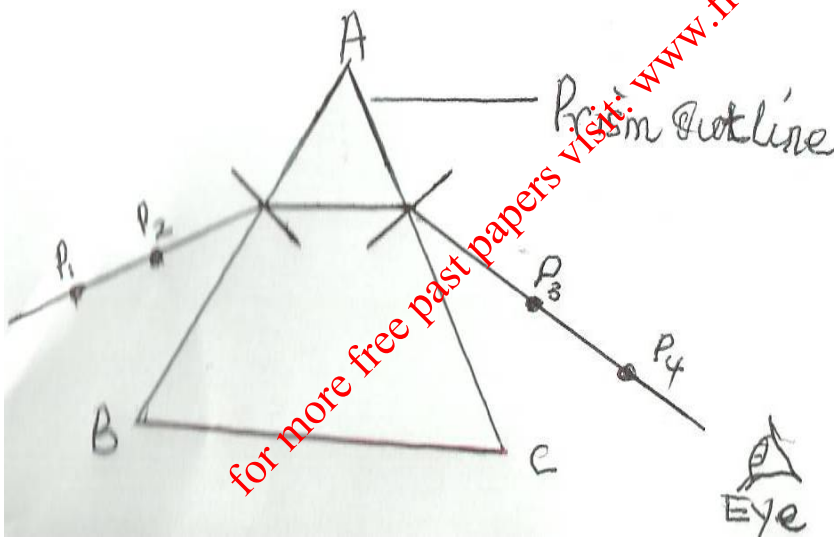
ii)A leaf electroscope can also be used as a detector of radio actions. State two advantages of the diffusion cloud chamber over the leaf electroscope as a detector. (2mks)

PRECIOUS BLOOD PRE-MOCK 2015

233/3
PHYSICS PRACTICAL
PAPER 3
MARCH 2015
TIME 2 ½ HOURS

1. You are provided with the following
   - A glass prism
   - A soft board
   - 4 optical pins
   - A white sheet of paper
   - 2 thump pins

a) Draw the outline of the glass prism on the plane paper mounted on the soft board. Label the vertices of the triangle as shown in the figure below. Note that AB and AC are sides of the prism that are equal in length. Mark a point O on the outline drawn. Draw a normal to the face AB via point O as shown in the diagram.
b) Measure an angle of incidence of 30o at the point of incidence O. Stick two pins P1 and P2 to mark the incident ray.



Place the glass prism on the outline and view side AC to see the images of pins P_1 and P_2. Stick pins P_3 below side AC as shown in the figure such that it is in a straight line with the images of P_1 and P_2. Stick the fourth pin P_4 so that it has in the same straight line with P_3 and the images of P_1 and P_2.
ii) Remove the prism and pins. Join points P_3 and P_4 in a straight line to meet AC at E. Join points E to 0. Measure the angle of refraction r.
r = ---------- (1mk)

c i) Repeat the experiment for different angles of incidence and complete the table.

Angle of incidence (i^o)	35	40	45	50	55	60
Angle of refraction (r^o)						
Sin i						
Sin r						

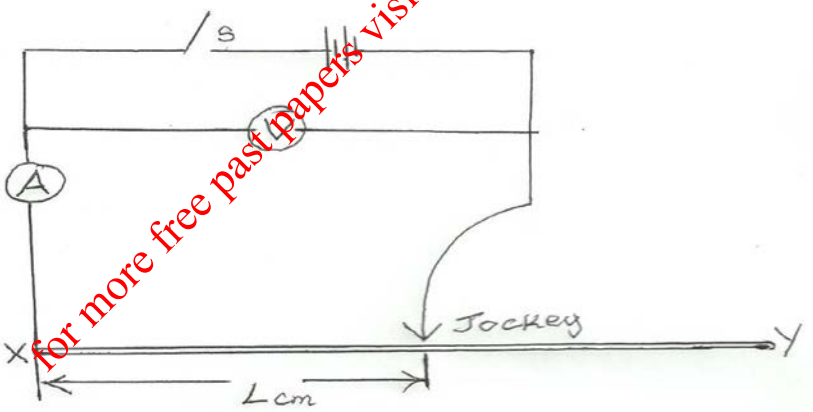
ii) Plot a graph of sin r against sin i. (5mks)

iii) Calculate the slope of graph. (4mks)

2.You are provided with

- A voltmeter
- An ammeter
- Connecting wires
- 2 dry cells
- A switch
- A cell holder
- A jockey
- A resistance wire mounted on a scale
- Micrometer screw
- Gauge

a) Set up the apparatus as in the diagram below



i) Move the jockey to point Y and close the switch. Record the ammeter and voltmeter readings.

V ---------- (½ mk)
I ---------- (½ mk)

ii) Calculate the resistance of the wire

R = V/I---------- (½ mk)

iii) Hence determine the resistance per unit length I of the wire from

K = R/100 ---------- ($^1/_2$ mk)

iv) Use the micrometer screw gauge provided to measure the diameter D of the resistance wire.

D ---------- ($^1/_2$ mk)

b) i) Using the same circuit in (a) above vary the length of the resistance wire L by adjusting the position of the jockey to correspond with the length shown in the table and complete the table-given that the e.m.f of the cell is 3v.

c)

Length (cm)	70	60	50	40	30	20
Current (A)						
P.D (v)						
E – V						

ii) Plot a graph of (E - V) y –axis against current. (5mks)

iii) Calculate the gradient of the graph. (1mk)

iv)Which does the slope stand for? (1mk)

PRECIOUS BLOOD PRE-MOCK 2015

312/1
GEOGRAPHY PAPER 1
PRE-MOCK EXAM
MARCH 2015
TIME: 2 ½ HOURS

SECTION A
Answer all the questions in this section

1.a) State two forces that shape the surface of the earth. (2mks)
b) State three characteristics of the crust. (3mks)
2. Describe how exfoliation dome is formed. (5mks)
3. a) Distinguish between a coast and a shore. (2mks)
b) State three conditions necessary for the formation of a spit. (3mks)
4. a) State three ideal conditions for the formation of an artesian well (3mks)
b) Give two ways in which underground water may reach the earth surface. (2mks)
5.The diagram below shows vegetation zones on a mountain slope. Use it to answer question (a)
a) Identify the vegetation zones marked P and Q (2mks)
b) State three characteristics of savanna vegetation. (3mks)

SECTION B

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

6. Study the map of Belgut sheet 117/3 and the following questions.

a i) Give the six figure grid reference for Teldet school in the North. (2mks)

ii) What is the approximate area of Homa Bay district found on the map extract. (2mks)

b) i) Give the direction and bearing of Mindililwet school from Chebirbei junction. (2mks)

ii) Measure the distance of river Sondo from Northing 50 to the end in the West. (2mks)

c. Draw a rectangle representing the area West of Easting 30 and North of Northing 50. (2mks)

On it mark and name the following:

i) River Sondo (1mk)

ii) Sikowon hill (1mk)

iii) Iii)All weather road bound surface. (1mk)

iv) Papyrus swamp (1mk)

d) i) Citing evidence from the area covered by the map, name any 2 social activities taking place in Kebenet. (2mks)

ii) Give two uses of river Sondo in the area through which it flows. (2mks)

iii) Explain 3 factors that have influenced the growing of Tea in area covered by the map (use evidence) (6mks)

iv) Name two types of settlement found at grid 2457. (1mk)

7. Study the map of Kenya showing faulting and answer the questions below.

a. i) Name the features marked 1, 2 (2mks)

ii) Name the scarps 3, 4 and 5 (2mks

iii) Name the lakes marked 7, 8 (2mks)

b) i) State three characteristics of the Rift Valley. (3mks)

ii) Using relevant diagrams, describe how a horst (fault block) was formed by Tensional forces. (5mks)

c. You carried out a field study in the region above on the effects of faulting on human activities.

i) State one hypothesis of your study. (1mk)

ii) State three problems you experienced during the study. (3mks)

iii) State three finding on the positive effects of faulting on human activities. (3mks)

iv)State three follow up activities you engaged in. (3mks)

8.a) i) Distinguish between soil profile and soil catena. (2mks)

ii) State two importance of minerals (inorganic matter) in the soil. (2mks)

b. i) Explain how the following factors influence soil formation:

a) Climate (3mks)

b) Living organism (3mks)

c) Describe calcification as a leaching process in soil formation. (3mks)

d) i) What is soil degeneration? (1mk)

ii) Identify two types of soil degeneration. (2mks)

e) Explain three ways in which vegetation protects the soil from degeneration. (6mks)

PRECIOUS BLOOD PRE-MOCK 2015

312/2
GEOGRAPHY PAPER 2
PRE-MOCK EXAM
MARCH 2015
TIME: 2 ½ HOURS

SECTION A

1.a) Name two tree species of high commercial value in a coniferous forest. (2mks)
b) State three characteristics of Tropical hardwood forests which hinder exploitation. (3mks)
2. State two factors that influence exploitation of minerals. (2mks)
b) Describe how soda ash is extracted in Lake Magadi. (3mks)
3.a) i) Distinguish between population distribution and population density. (1mk)
ii)What is dependency ratio? (1mk)
b)State three reasons for reduced fertility rate in Kenya. (3mks)
4. a) i)Name two dairy cattle breeds reared in Kenya. (2mks)
b)State three differences between beef farming in Argentina and Kenya. (3mks)
5.a)Give two advantages of wood as a source of fuel. (2mks)
b)State three conditions necessary for the formation of Oil. (3mks)

SECTION B

6. Study the table below that shows Kenya's visible balance of Trade with some selected countries. 1982-1984 (figures in pounds '000)

County	**1982**		**1983**		**1984**	
	Exports	**Imports**	**Exports**	**Imports**	**Exports**	**Imports**
UK	72,000	135,000	96,000	120,000	140,000	152,000
Germany	60,500	75,5000	82,000	70,000	98,000	98,000
USSR	4,500	150	3,000	100	4,000	300
U.S.A	35,000	54,000	40,000	56,000	38,000	50,000
Uganda	58,000	1,300	7,2000	800	67,000	100,000

a)i) Draw a comparative line graph showing the exports from 1982 to 1984 using a vertical scale of 1:10 million and horizontal scale. (8mks)
ii) State three disadvantages of this graph experienced during the construction. (3mks)
b) i) Define balance of trade. (2mks)
ii) Calculate the balance of trade for Kenya 1984. (2mks)
c. i) Name two major exports and two major imports of Kenya. (4mks)
ii)Give three reasons for the nature of Kenya's balance of trade from the table above. (3mks)
d) State three measures the government has taken to achieve a favourable balance of trade.
7.a) i) Name two provinces in Canada where wheat is grown. (2mks)
ii) Explain four physical factors favouring wheat growing in Kenya. (8mks)

b) Compare wheat farming in Kenya and Canada under the following headings:
- cultivation (2mks)
- harvesting (2mks)
- marketing (2mks)

c. i) Explain three human and economic problems facing wheat farming in Canada. (6mks)
ii) State three importance of wheat farming in Canada. (3mks)
8.a.i) Name two countries found in the north West pacific fishing ground. (2mks)
ii) Explain four physical factors that favour fishing in the above fishing ground. (8mks)
b) Describe the following methods of fishing:
i) drifting (4mks)
ii) purse seine (4mks)
c) compare fishing in Kenya and Japan under the following sub-headings:
i) fishing ground (2mks)
ii) climate (2mks)

d) State 3 significance of fishing to the economy of Kenya. (3mks)

PRECIOUS BLOOD PRE-MOCK 2015

311/1
HISTORY & GOVERNMENT PAPER 1
PRE-MOCK 1 – MARCH 2015
TIME: 2 ½ HOURS

SECTION A (25 MARKS)

1. How can anthropology be used to source information on history and government. (1 mk)
2. Identify one ageset among the Nandi. (1 mk)
3. Give two positive contributions of Seyyid said to the economy of Kenyan coast upto 1700 AD. (2 mks)
4. Identify the main cause of political conflicts in Kenya. (1 mk)
5. Give the main cause of political conflicts in Kenya. (1 mk)
6. Give two remedies that have been employed to curb food shortages in Kenya. (2 mks)
7. State two main features of the 1962 constitution of Kenya. (2 mks)
8. Give two rights of persons with disabilities in Kenya. (2 mks)
9. Identify one role of religion during the Agiriama resistance. (1 mk)

10. Give one impact of local government in colonial Kenya. (1 mk)
11. State two roles of Africans in the provision of health services during the colonial period. (2 mks)
12. Give two ways in which the first World War contributed to African political awareness in Kenya. (2 mks)
13. Give one contributed of Daniel Moi in environmental conversation in Kenya. (1 mk)
14. State two functions of the County Executive Committee. (1 mk)

15. Identify one settlement scheme established by the government in former European farms. (1 mk)
16. State two achievements of the Kenya African Democratic Union if Kenya. (2 mks)

17. Identify one principle of public finance in Kenya. (2 mks)

SECTION B (45 MKS)

18. (a) State five factors that facilitated he coming of Arabs to the Kenyan coast by 1500 AD. (5 mks)

    (b) Explain five factors that contributed to the decline of early city states along the Kenyan coast. (10 mks)

19. (a) Give three reasons for the rise of independent churches during the colonial period. (3 mks)

    (b) Explain six problems that were encountered by Trade Unions during the colonial period. (12 mks)

20. (a) Give three reasons why Africans were denied the right to grow cash crops during the colonial period. (3 mks)

    (b) Explain six problems faced by settlers in colonial Kenya. (12 mks)

SECTION C (30 MKS)

21. (a) Give three reason that may lead to the impeachment of a government from officer. (3 mks)

    (b) Explain six challenges facing county governments. (12mks)

22. (a) Give five contributions of professor Wangari Maathai to the environmental conservation efforts ion Kenya. (5 mks)

    (b) Describe the main features of African socialism. (10 mks)

PRECIOUS BLOOD PRE-MOCK 2015

311/2
HISTORY & GOVERNMENT
PAPER 2
PRE MOCK - MARCH 2015
TIME: 2 ½ HOURS

SECTION A (25 MKS)

Answer all the questions

1. State two advantages of using electronics in History. (2mks)

2. Give the MAIN characteristic that distinguish man from other primates (1mk)

3. What two factors favoured the beginning of Agriculture during the new stone age period (2mks)

4. State two factors that facilitated Trans-Atlantic Trade. (2mks)

5. Give one way in which road carnage affects the economy of a country. (1mk)

6. Identify one form of picture writing during the early civilization. (1mk)

7. State two uses of water as an early source of energy in industries. (2mks)

8. Identify two challenges faced by Athens as a ancient urban centre. (2mks)
9. State one way through which trade contributed to the rise of Asante Empire during the 19th century. (1mk)
10. Identify one way through which Europeans maintained peace among themselves during partition of African. (1mk)
11. State two factors that facilitated application of indirect rule in the Northern Nigeria. (2mks)
12. Mention two political challenges facing African states since independence. (2mks)

13. Identify the names of the two camps that fought during the First World War. (2mks)

14. Give one reason that contributed to the collapse of the ujamaa policy in Tanzania. (1mk)

15. Name the organization that replaced Preferential Trade Area (PTA). (1mk)

16. Identify one weapon used during cold war. (1mk)

17. Give one way in which a person can become a member of parliament in Britain. (1mk)

SECTION B (45 MARKS)

Answer any 3 questions

18. a) State five factors that facilitated the scientific revolution. (5mks)

b) Explain 5 factors that enabled West Germany to recover after the world war. (10mks)

19. a) State 3 reasons for Lewanika's collaboration with the British. (3mks)

b) Describe the political organization of the Asante in the pre-colonial period. (3mks)

20. a) Give 3 causes of army muting Democratic Republic of Congo in 1960. (3mks)

b) Explain political development in Tanzania since independence. (12mks)

SECTION C (30 MARKS)

Answer any three questions.

21. a) State five characteristics of the common wealth states . (5mks)

b) Explain five achievements of common wealth to its members. (10mks)

22. a) State three reasons for the failure of Schlieffen plan during first world war. (3mks)
b) Explain six reasons for the Allies Victory during Second World War. (12mks)

PRECIOUS BLOOD PRE-MOCK 2015

313/1
PRE-MOCK 2015
CHRISTIAN RELIGIOUS EDUCATION PAPER 1
MARCH 2015
TIME: 2 ½ HOURS

1. a) Outline the first account of creation in Genesis 1:1-2:49 (7mks)

b) State **seven** responsibilities given to human beings by God in the genesis stories of creation. (7mks)

c) Outline **six** ways in which Christians care for God's creation today. (6mks)

2. a) Explain the factors that led to the division of Israel after the death of King Solomon. (7mks)

b) Identify **seven** reasons that led to the Mt. Carmel contest. (7mks)

c) State **six** reasons why leaders are rejected in society today. (6mks)

3. a) Mention seven ways in which the old Testament prophets communicated their messages. (7mks)

b) Give **seven** reasons why Israel and Judah would face God's judgement according to prophet Amos. (7mks)

c) State six ways in which modern Christians may invite Gods punishment on them. (6mks)

4. a) Describe the call of prophet Jeremiah. (7mks)

b) Outline **seven** reasons why Jeremiah condemned human sacrifice. (7mks)

c) State **six** ways in which Christians can reduce human suffering. (6mks)

5. a) Identify seven factors that promote harmony and social responsibility in traditional African Community. (7mks)

b) Mention seven factors that influence the naming of children in traditional African society. (7mks)

c) Show how modern trends have affected burial rites in traditional African communities. (6mks)

PRECIOUS BLOOD PRE-MOCK 2015

313/2
CHRISTIAN RELIGIOUS EDUCATION
PAPER 2
PRE-MOCK - MARCH 2015
TIME: 2 ½ HOURS

1. a) Outline Nathan's prophecy concerning the coming of the messiah. (6mks)

b) Describe the birth of John the Baptist according to Luke 1:57-79. (7mks)

c) Give **seven** reasons why Christians sing in church today. (7mks)

2. a) Outline **seven** teachings of Jesus from the sermon on the plain on true discipleship. (7mks)

b) Using examples give **four** reasons why Jesus faced opposition from the Jewish, religious leaders in Galilee . (8mks)

c) Outline **Five** ways in which the church leaders are preparing in the society for the second coming of Jesus. (5mks)

3. a) Narrate the parable of the great feast. (7mks)

b) Identify **seven** teachings of Jesus on eschatology according to Luke 21:5-38.(7mks)

c) State **six** reasons why Christians celebrate the last supper today. (6mks)

4. a) Give **seven** instructions Paul gave to the church in Corinth on how to use Spiritual gifts. (7mks)

b) Explain how the unity of believers is expressed in the image of the bride Rev.2:1-2 2 cor11:2. (6mks)

c) Outline the importance of the Holy Spirit to Christians today. (7mks)

5. a) Outline **seven** moral duties of employers to employees. (7mks)

b) Mention **seven** factors that determine a just wage. (7mks)

c) Show how retrenchmentof workers affect their families (6mks)

PRECIOUS BLOOD PRE-MOCK 2015

565/1
BUSINESS STUDIES
Paper 1
March 2015
2 HRS

1.Highlight **four** reasons why people engage in Business activities.
2. Outline **four** types of resources that are important in Business. (4mks)
3. State **four** functions of an entrepreneur in the production of goods and services. (4mks)
4. Identify the machine used to perform the following tasks. (4mks)

Statements	The machine
a) To count coins and notes	
b) To trim paper into required sizes and shapes	
c) To fold documents, place them in envelope and seal the envelope	
d) To print postage impression on envelopes	

5. Outline **four** differences between chain stores and departmental stores. (4mks)

Chain stores	Departmental stores
i)	
ii)	
iii)	
iv)	

6. State **four** statistics that are associated with the measurement of National income. (4mks)

7. Prepare Sunshine Traders Balance sheet from the following list of balances extracted from his books as at31 December 2013. (4mks)

Capital	357,000
Stock	40,000
Machines	150,000
Furniture	7,000
Motor vehicles	200,000
Bank	20,000
Creditors	25,000
Cash	5,000
Debtors	60,000
Loan from KCB	100,000

8. Outline **four** characteristics of a good filing system (4mks)

9. Highlight **four** methods that Government uses to protect consumers. (4mks)

10. State **four** factors that a manager should bear in mind to ensure that he/she effectively communicates with the employees. (4mks)

11. State the meaning of the following principles of insurance . (4mks)

a) Subrogation----------

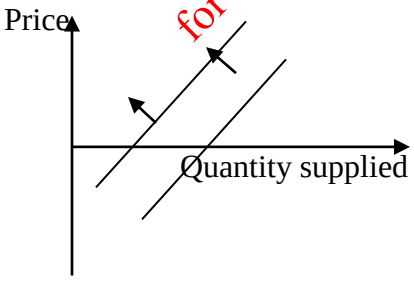
b) Contribution----------

c) Insurable interest----------

d) Indemnity----------

12.Highlight four characteristics of underdevelopment. (4mks)

13



State **four** factors that may have caused the change shown in the diagram above.

14. Highlight **four** causes of unemployment in Kenya. (4mks)

15. Outline **four** circumstances under which Mr Ondieki (a farmer) may distribute his products directly to his customers. (4mks)

16. Tripple SSS wholesalers had the following information as at 31 December 2013 (4mks)

Closing capital	70,000
Total expenses	5,000
Drawings of goods	6,000
Total incomes	3,000

Calculate the capital at the beginning of the year.

17. Highlight **four** advantages of localization of firms. (4mks)
18. State **four** characteristics of good money. (4mks)
19. Identify the day book associated with the following source documents given below. (4mks)

Source documents	**Day books**
Invoice received	
Credit note received	
Receipt issued	
Debit note received	

20 Highlight **four** purposes of public finance. (4mks)

21. The following balances were extracted from the books of Okinda wholesalers on 31st December 2006. (4mks)

	Sh
Capital	800,000
Sales	250,000
Debtors	70,000
Purchases	160,000
Creditors	45,000
Opening stock (1.1.2006)	40,000
Closing stock (31.12.2006)	20,000
General expenses	50,000
5 year bank loan	200,000
Insurance expenses	20,000
Salaries and wages	80,000

Required, calculate

i) Mark up (1mk)
ii) Current ratio (1mk)
iii) Rate of stock turnover (1mk)
iv) Rate on return on capital (1mk)

23. Highlight **four** uses of a proforma invoice. (4mks)

24. State **four** factors that affect the productivity of an office worker. (4mks)

25. In each of the following cases, state the type of inflation described (4mks)

a) The unrest in Libya has resulted to an increase in the price of oil	
b)The price of bread has gone upto sh.60 due to increase in the price of wheat	
c) A lot of money in circulation has led to the general increase of price	
d) Arise in price due to uneven growth in some sectors of the economy.	

PRECIOUS BLOOD PRE-MOCK 2015

565/2
FORM 4
BUSINESS STUDIES
PRE-MOCK – MARCH 2015
TIME: 2½ HOURS

1. **a)** Explain **five** benefits that would accrue to Country as a result of delocalization. (10mks)

   b) Explain **five** features of a perfect competition market structure (10mks)

2. **a)** The following transactions relate to Vivylex wholesalers for the month of December 1998.

1998

Dec. 1 Bought goods on credit from Weka Distributors sh.46,200, Micko sh15,600 and Limo shs38,360.
3 Sold goods on credit to Lwanda Retailers shs.39,200, Motor Grocers sh.25,560 and Mawe shs.12,650.
7 Returned goods to Micko sh4,200 and Limo shs6,140.
11 Bought goods on credit from Tuktuk sh34,830.
12 Goods returned by motor Grocers hs4,550 and Lwanda Retailers sh1,280.
15 Sold goods on credit to Motor Grocers shs6,800, Marion traders shs12,800.
18 Goods returned by Marion Traders shs2,060.

22 Bought goods on credit from Fatuma shs22,100, Temo shs38,350.
28 Credit sales to Ngula shs16,060, Oyunga shs12,960 and Mawe shs15,260.
Enter the above transaction in the respective books of original entry (10mks)

b) Discuss **five** factors that enhances efficient running of a warehouse. (10mks)

3. **a)** Explain **five** negative effects of inflation to a country's economic development.(10mks)

b) Highlight **five** importance of entrepreneurship to the economy of a country. (10mks)

4. **a)** Explain **five** factors that can lead to unfavourable balance of payment. (10mks)

b) Explain **five** factors to be considered when choosing a method of product promotion (10mks)

5. **a)** Describe **five** procedure to be followed when taking an insurance policy. (10mks)

b) Explain **five** limitations of containerization in transport sector. (10mks)

6. **a)** Highlight **five** benefits that a country will enjoy as a result of indirect production(10mks)

b) The following trial balance was extracted from the books of Mugoya Traders as at 30th June, 2014

Mugoya Traders
Trial balance
As at 30th June 2014

Details	**Dr** (shs)	**Cr** (shs)
Premises	1,500,000	
Debtors and creditors	20,000	30,000
Cash at bank	90,000	
Cash in hand	10,000	
Purchases and sales	140,000	320,000
Stock of good on 1st July 2013	45,000	
Discounts	6,000	2,000
Salaries and wages	50,000	
Commissions		8,000
Power and lighting	12,000	
Returns	15,000	19,000
Carriage outwards	2,300	
Carriage inwards	5,400	
Capital		1,543,700
Furniture	27,000	
	1,922,700	**1,922,700**

Additional information
Stock of goods on 30th June, 2014 was worth sh22, 000.
Required: prepare trading, profit and loss account for the period ended 30th June, 2014. (10mks)