STUDENTS' PROGRESS ASSESSMENT TEST (S.P.A.T)

FORM 2 MID-TERM TWO EXAMS

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STUDENTS' PROGRESS ASSESSMENT TEST (S.P.A.T)

FORM 2 MID-TERM 2 EXAMS

Prefer Calling Sir Obiero Amos @

0706 851 439 for the Marking Scheme

14 SUBJECTES TESTED: Eng, Kisw, Maths, Chem, Bio, Phy, Geog, Hist, CRE, Agric & Bussiness Studies,

N/B In Response to the Huge Costs Associated in Coming Up with Such/Similar Resources Regulary, We inform us All MARKING SCHEMES ARE NOT FREE OF CHARGE. However Similar QUESTIONS Inform of soft Copies are Absolutely FREE to Anybody/Everybody Hence NOT FOR SALE   by Amobi Soft Copy Publishers

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Name: …………………………………………………………. Adm No …………..…………........

School: ………………………………………………...……. Signature …………………

Date: ……………………………………………………

TIME: 2 HOURS

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STUDENTS' PROGRESS ASSESSMENT TEST (S.P.A.T)

MID-TERM TWO EXAMS

Form 2

INSTRUCTIONS TO STUDENTS:

- *Write **your name**, **admission number** and **school** in the spaces provided.*
- *Sign and write the date of the examination in the spaces provided.*
- *This paper consists of **two** sections; **A** and **B** .*
- *Answer **all** questions in section **A** and **B**.*
- *All answers **must** be written in the spaces provided.*

For Examiner's Use Only;

SECTION	QUESTION	MAXIMUM SCORE	STUDENT'S SCORE
A	1 - 15	20	
B	16-18	30	
C	19 – 20	40	
	TOTAL SCORE	**90**	

1. Define the following as used in agriculture. (2 marks)

(i) Plantation farming …………………………………………………………………………………………

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(ii) Large scale farming

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2. Mention **four** factors that cause farmers to adopt small - scale farming. (2 marks)

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3. Highlight **four** methods in which land can be reclaimed. (2 marks)

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4. Give **four** reasons why water is treated before use in the farm. (2 marks)

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5. Identify **four** farming practices that improve soil structure. (2 marks)

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6. Give **four** effects of wind on crops. (2 marks)

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7. Identify **four** features of ranching as a farming system. (2 marks)

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8. List **four** tools and equipment used to maintain health of livestock. (2 marks)

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9. Mention **four** components of soil. (2 marks)

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10. Mention **four** factors considered in choosing irrigation water pipes. (2 marks)

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11. Give four ways in which livestock production is affected with parasites. (2 marks)

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12. Apart from potassium, list **four** other macro-nutrients essential to plants. (2 marks)

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13. Mention **four** roles of potassium to plants. (2 marks)

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14. Give **four** characteristics of nitrogenous fertilizers. (2 marks)

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15. maize is planted at a spacing of 75 x25 cm, calculate the plant population in a plot of land

measuring 4x3 m. (2 marks)
SECTION B (20 MARKS)

Answer all questions in this section.

16. A farmer was asked to apply fertilizers as follows:

200kg/ha of DSP (40% P_2O_5)

150kg/ha of muriate of potash (60% K_2O)

150kg/ha of sulphate of ammonia (20% N)

(a) How much P_2O_5 didthe farmer apply per acre? (2 marks)

(b) How much K_2O did the farmer apply per hectare? (2 marks)

(c) How much N did the farmer apply per hectare? (2 marks)

17. Below is a method of crop propagation. Use it to answer questions that follow.
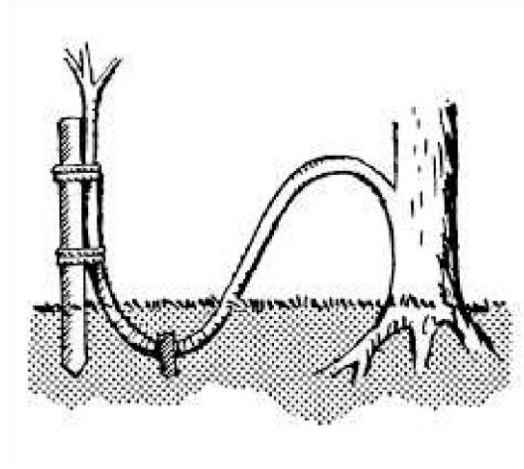
(a) Identify this practice. (1 mark)

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(b) State **three** advantages of the practice. (3 marks)

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(c) Give **two** disadvantages of the method of propagation above. (2 marks)

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18. The picture below shows a method of irrigation. Study it and then answer questions that follow.

(a) Name the method of irrigation. (1 mark)

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(b) Give **five** advantages of above method of irrigation. (5 marks)

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(c) Mention **two** limitations in using the above method of irrigation. (2 marks)

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SECTION C (40 Marks)

Answer all the questions in the spaces provided.

19. (a) Distinguish between seed dressing and seed inoculation. (2 marks)

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(b) Explain **four** methods of breaking dormancy in seeds.   (8 marks)

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(c)State **five** factors a farmer should consider in timing planting.   (5 marks)

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(d) Give **five** advantages of timely planting.   (5 marks)

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20. (a) State **five** advantages of using seeds as planting materials.   (5 marks)

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(b) List five factors affecting rooting of cuttings.   (5 marks)

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(c) Discuss **five** factors that determine spacing of crops.   (10 marks)

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NAME………………………………………………….ADMNO……………………………………………
SCHOOL……………………………………………………. DATE…………………………………………………. .
 SIGN……………………………….

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STUDENTS' PROGRESS ASSESSMENT TEST (S.P.A.T)

MID-TERM TWO EXAMS

BIOLOGY PAPER
(Theory)
TIME: 1 HOUR

FORM 2

INSTRUCTIONS TO CANDIDATES

a) Write your name and admission number in the spaces provided above
b) Sign and write the date of examination in the spaces provided above
c) Answer all questions
d) Answers must be written in the spaces provided in the question paper
e) This question paper has 5 printed pages.
f) Students should check the question paper to ascertain that all the pages are printed as indicated and that not questions are missing
g) Students should answer the questions in English.

FOR EXAMINER'S USE ONLY

Question	Maximum score	Student's Score
1-18	50	

1. Study the diagram of cell organelles shown below and answer the question that follow.
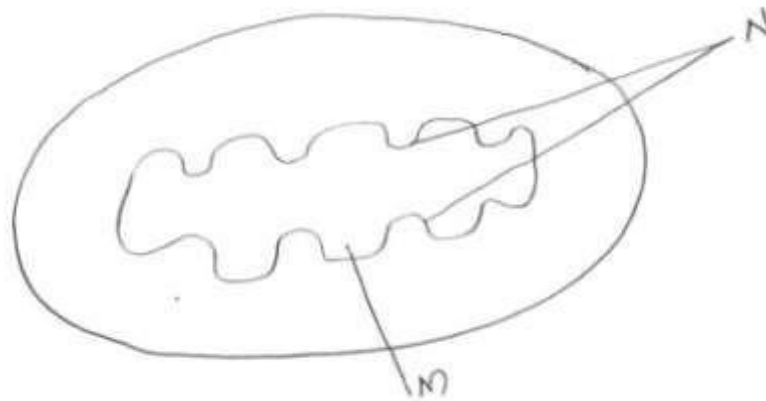
a. identify the organelle   (1mk)

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b) State the function of the organelle   (1mk)

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c) Name the parts labelled M and N   (2mk)

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2. Name three forces that aid in the movement of water upwards in the xylem   (3mks)

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3. What is plasmolysis ?   (1mk)

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4. State two functions of the light stage of photosynthesis   (2mks)

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5. Study the diagram of the mammalian tooth and answer the questions that follow. (2mks)

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a. Giving a reason identify the tooth   (2 mks)

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

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6. The diagram below shows a section of a dicotyledonous stem
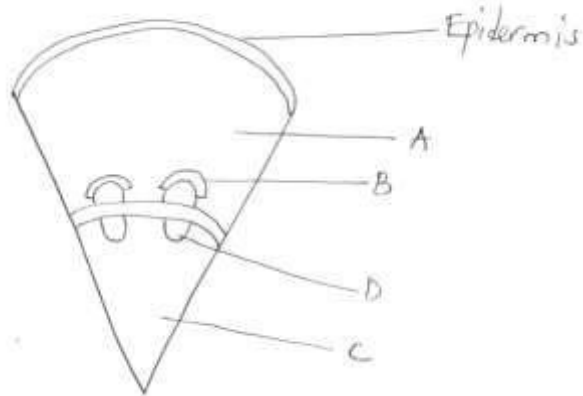
Name the tissues marked A, B,C and D and state the function of each   (4mks)

Tissues	Function
A	
B	
C	
D	

7. State the function of the following cell organelles

a. Lysososmes   (1mk)

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b. Golgi apparatus   (1mk)

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8. State two functions of the large intestine in human being `   (2mks)

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9. State three importance of osmosis in plants   (3mks)

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10. Black jack (Bidens pilosa) belongs to the family composted. What is the plant?

a. genus   (1mk)

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b. Species   (1mk)

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11. The diagram below shows an experiment that was carried out to investigate photosynthesis on a leaf from a potted plant.
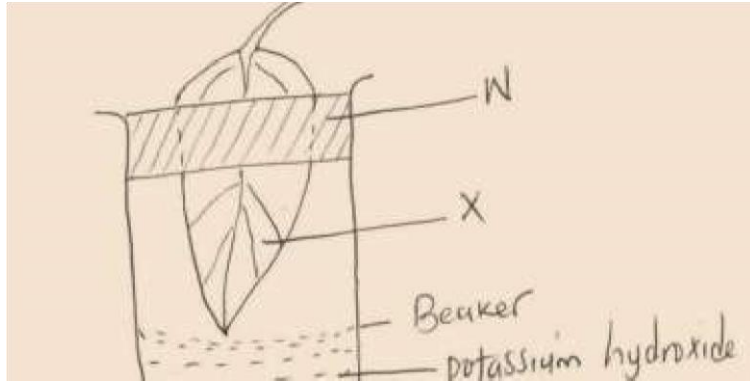
The plant was kept in darkness for 48hrs before the experiment. The set up was left in the light for several hrs, and then the leaf was tested for starch.

a) What results were expected in regions X and W?   (2mks)

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b) State the role of potassium hydroxide in the experiment   (1mk)

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12. a) Explain how the following factors affect the rate of diffusion?

i) surface area to volume ratio   (2mks)

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ii) Temperature   (1mk)

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b. Outline three roles of active transport in the human body   (3mks)

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13. Give two reasons why xylem vessels are more efficient than tracheid Clements in transportation of water.   (2mks)

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14. Account for the changes that would occur if a marine amoeba species was transferred into a freshwater pond   (2mks)

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15. Name the disease caused by the deficiently of vitamin B,   (1mk)

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16. Distinguish between open and closed circulatory system   (2mks)

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17. The apparatus shows below was used by a group of students in a class experiment
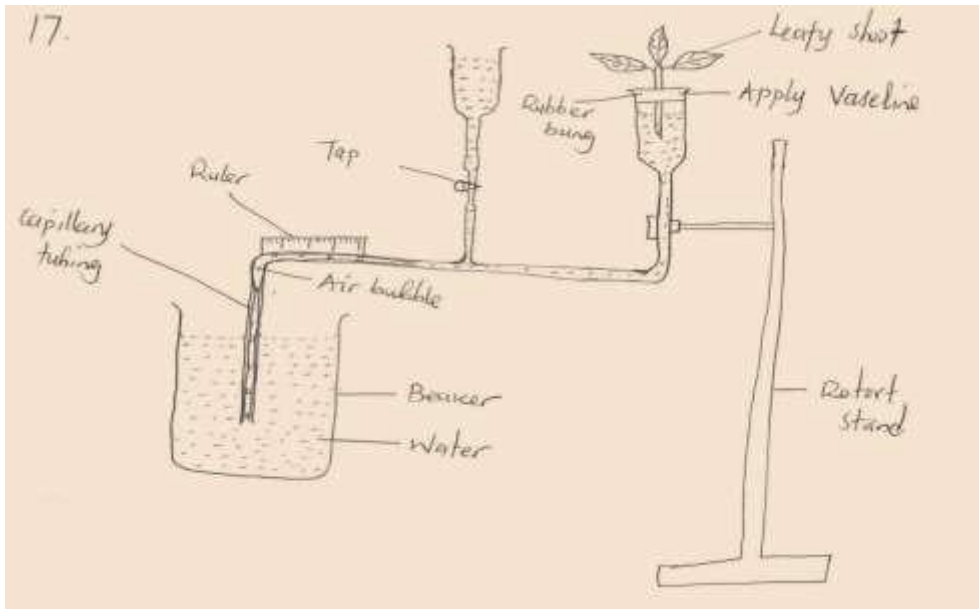
a) Name the apparatus and state its use (2mks)

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b) What would happen to the rate of movement of the air bubbled under each of the following conditions?

Give reason in each.

i. When the plant is moved from sea level to mountain peak (2mks)

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ii. When the leaves of the twigs are coated with a film of petroleum jelly (1mk)

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c) Why was the Vaseline applied on the rubber bung? (1mk)

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18. State two significance of transpiration   (2mks)

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Name……………………………………… …………………………………………………….. Adm No:………………………….

Signature ………………………………………………………………… DATE ………………………………………….

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STUDENTS' PROGRESS ASSESSMENT TEST (S.P.A.T)

MID-TERM TWO EXAMS

FORM 2 Business Studies   2 Hours

INSTRUCTIONS TO STUDENTS

- Write your **name** and **admission number** on the answer booklet
- provided.
- This paper consists of **9** questions.
- Answer **ALL** the questions in this question paper.

All questions carry equal marks.

For Examiners Use Only

Question	1-5	6	7	8	9	TOTAL
MAXIMUM SCORE	20	20	20	20	20	100
STUDENT'S SCORE						

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

1. State **four** features of sole proprietorship. (4 marks)

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2. Highlight **four** contents of the partnership deed in business. (4 marks)

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3. Mention **four** principles of co-operatives. (4 marks)

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4. Highlight **four** advantages of private limited company. (4marks)

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5. State **four** services that retailers render to wholesalers. (4marks)

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   (a) Explain **five** characteristics of human wants. (10 marks)

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(b) Discuss **five** characteristics of economic resources. (10 marks)

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(a) Explain **five** disadvantages of division of labour and specialization in a firm. (10 marks)

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(b) Explain **five** business considerations one would consider when evaluating a business

opportunity.   (10 marks)

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(a) Everline has been able to expand her business, just two months after starting it.

Explain **five** possible reasons behind this success.

(10 marks)

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(b) Explain five importance of ethical issues in business.   (10 marks)

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(a) Discuss **five** advantages of open office layout as an arrangement in an office. (10 marks)

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(b) State five differences between the invoice and pro-forma invoice.   (10 marks)

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NAME…………………………………………...……........................ADM NO………………..

SCHOOL……………….…………………………………………DATE………………………
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CHEMISTRY

TIME: 2 HOURS

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STUDENTS' PROGRESS ASSESSMENT TEST (S.P.A.T)

MID-TERM TWO EXAMS

FORM 2

READ THESE INSTRUCTIONS CAREFULLY

1.   Write your name and admission number in the spaces provided above.
2.   Answer all questions in this question paper .

3.   All your answers must be written in the spaces provided in this question paper.

4.   Make sure that 8 pages are printed in this paper.

1((a). The table below shows some properties of chlorine, bromine and iodine .

element	formula	Colour and state room temperature	Solubility in water
Chlorine	Cl_2	(i)	Soluble
Bromine	Br_2	Brown liquid	(ii)
iodine	I_2	(iii)	Slightly soluble

Complete the table by giving the missing information in (i), (ii) and (iii) above. (3mks)

(b). Chlorine gas is prepared by reacting concentrated hydrochloric acid with either Manganese (IV) oxide or Potassium permanganate.

(i). Write the equation for the reaction between concentrated hydrochloric acid and Manganese (IV) oxide.   (1mk)

(ii). What is the role of manganese (iv) oxide in this reaction?   (1mk)

(iii). When potassium permanganate is used instead of manganese (iv) oxide, heating is not required.
Explain.   (1mk)

(iv). Give two advantages of using potassium permanganate over manganese (IV) oxide.   (2mks)

(v). Iron metal reacts with chlorine to form substance E. identify substance E.   (1mk)

(vi). Write a chemical equation to represent the reaction in (V) above   .(1mk)

(c). The set up   below was used to collect gas F produced between water and calcium metal.

Gas F

Test tube

beaker

Calcium metal
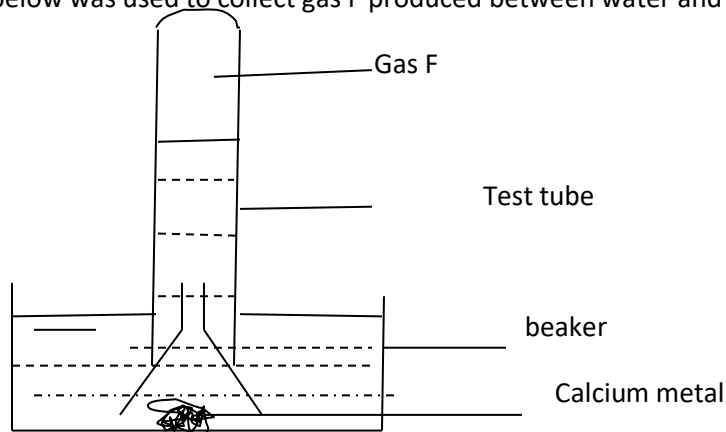
(i). Name gas F.   (1mk)

(ii). Write an equation for the production of gas F.   (1mk).

(iii). At the end of the experiment, the solution in the beaker was found to be a weak base. Explain why the solution was a weak base.   (2mks)

(iv). Give one laboratory use of the solution formed in the beaker.   (1mk)

2(a). The set op below was used to investigate the reaction of sodium metal with chlorine gas. Study it and answer the questions that follow.

Deflagrating spoon

Chlorine gas

Warm piece of

sodium metal
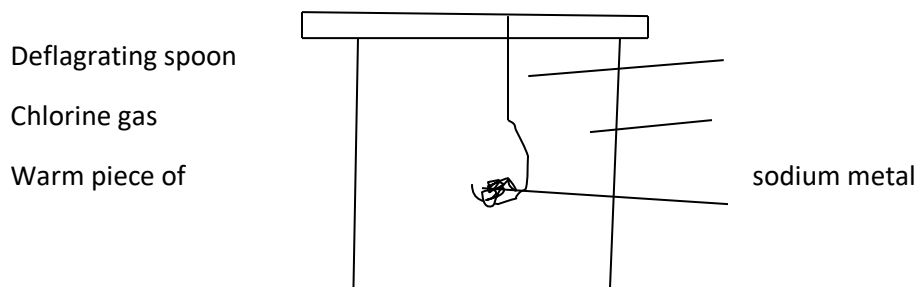
(i). State two   observations that would be made in the gas jar.   (2mks)

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

(iii). Name one use of the product formed.   (1mk)

(b). In an experiment , dry hydrogen gas was passed over heated lead (II) oxide as shown below.

Lead (II) oxide

Dry hydrogen gas

Heat
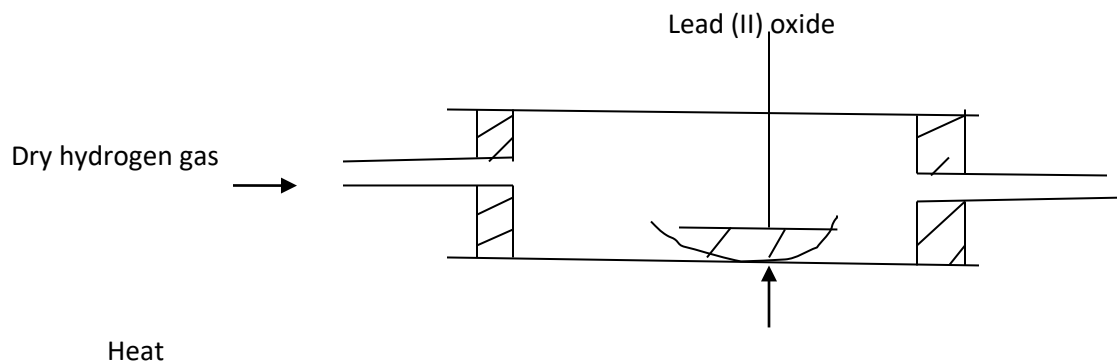
(i). State the two observations made in the combustion tube after the experiment.   (2mks)

(ii). Write a chemical equation for the reaction that occurred in the combustion tube.(1mk)

(iii). What property of hydrogen gas is shown by the reaction in b (ii) above?   (1mk)

3. In an experiment, a test tube of chlorine gas was inverted in water as shown in the diagram. It was then left to stand in sunlight for one day.

sunlight

Gas M

Tests tube

Chlorine water
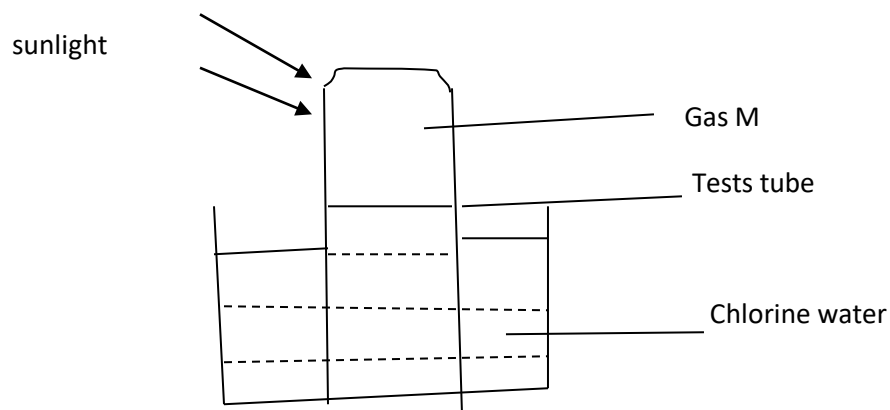
After one day, a gas M was found to have collected in the test tube as shown above.

(i). identify gas M.   (1mk)

(ii). Suggest whether the PH of the solution the beaker would increase or decrease after one day. Give an explanation. (2mks)

(iii). The colour of chlorine water was observed to have changed from pale yellow to colourless after one day. Explain. (2mks)

(iv) Write an equation to support your answer in 3(iii) above. (1mk)

(v). State and explain the observation made when a moist blue litmus paper was placed at the mouth of the test tube containing chlorine gas. (3mks)

(vi). Write an equation to show how the process in 3(v) above occurs. (1mk)

(vii). Give two uses of chlorine gas.

(2mks) 4(a). The chart below is an outline of part of the periodic table.

X
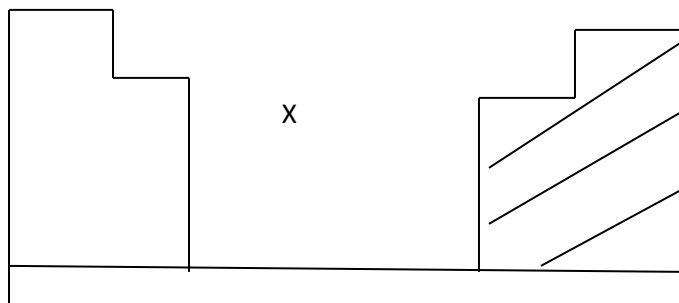
(i). With the help of vertical and horizontal lines , indicate the direction of increasing non-metallic nature of the elements.   (2mks)

(ii). Which type of elements are represented :

        By X ?   (1mk)

        In the shaded area?   (1mk)

(b)(i). Element A is in the same group of the periodic table as chlorine. Write the formula of the compound formed when A reacts with magnesium.   (1mk)

(ii). Soot is one of the environmental pollutants.

        I.Explain the term pollutant.   (1mk)

        II.State how soot is formed from hydrocarbons.   (1mk)

(iii). What role do the following play in the commercial preparation of oxygen gas?

    I.   Concentrated sodium hydroxide.

    (1mk) II.   Concentrated Sulphuric (VI) acid.

    (1mk)

.

(ii). A student set up the experiment bellow to collect gas K. the glass wool was heated before heating the magnesium coil.

Cotton wool soaked in water   magnesium coil   Gas K

heat   heat
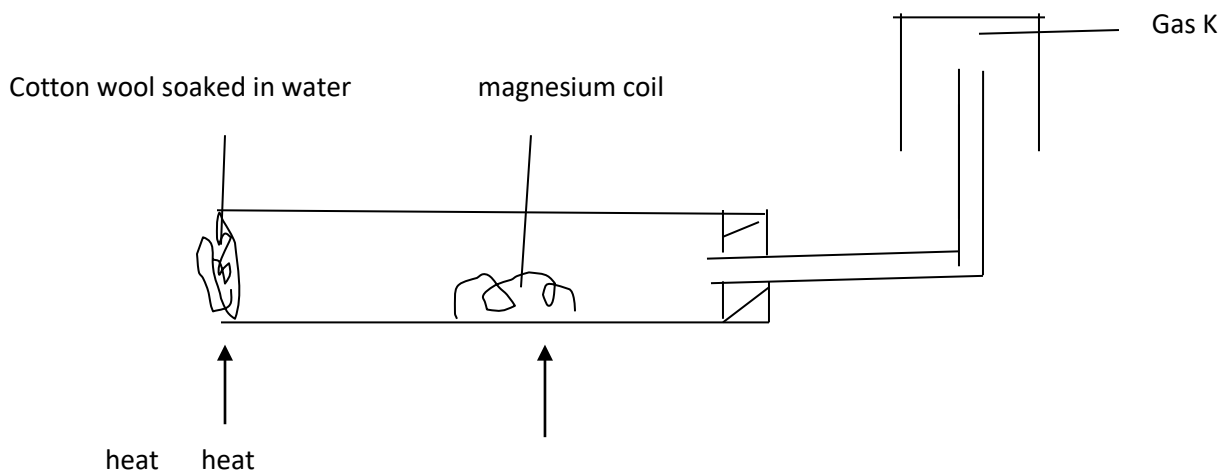
(a). Explain why it was necessary to heat the moist cotton wool before heating the magnesium. (2mks)

(b).Identify gas K.
(1mk)

(c).what property of gas K makes it possible to be collected by the method shown?
(1mk)

(d). Write a chemical equation for the reaction that produced gas K.
(1mk)

(e).The diagram represents two methods of gas collection in the laboratory.

Gas

Email:

(a)   (b)
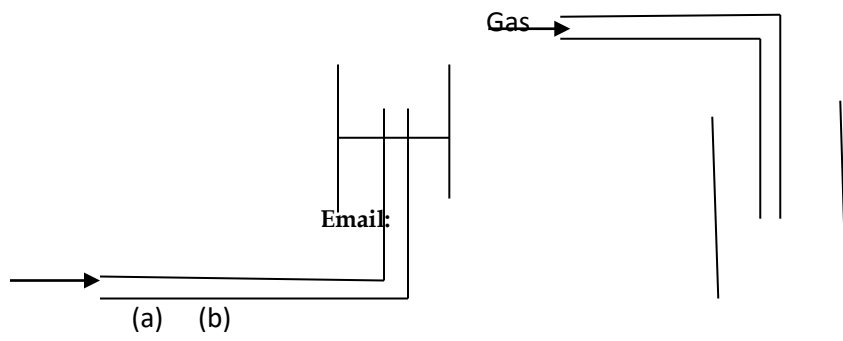
Gas

(i). Name the methods of gas collection above.   (2mks)

(ii). Which method is suitable for collecting dry carbon (IV) oxide gas? Give a reason .   (2mks)

5. The curves bellow represent the variation of temperature with time when pure and impure samples of a solid were heated separately.

A

Temperature

(a). Which curve represents variation in temperature for solid? Explain.   (2mks)

the pure

B
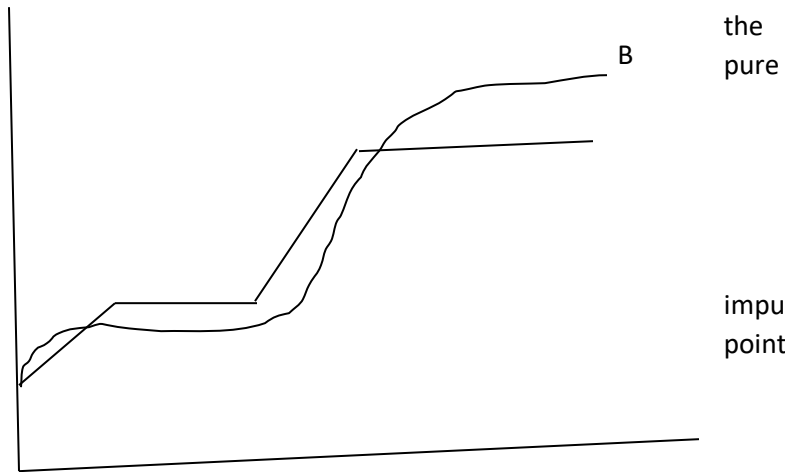
(b)State the effect of an on the melting and boiling a pure substance.(2mks)

impurity points of

(c). Name two gases used with oxygen in welding.   (2mks)

6. The set up bellow was used to study some properties of air.

Moist iron

Test tube

water

.Draw water in the observations.

another diagram to show the level of the test tube after 24 hours. Explain

(3mks)
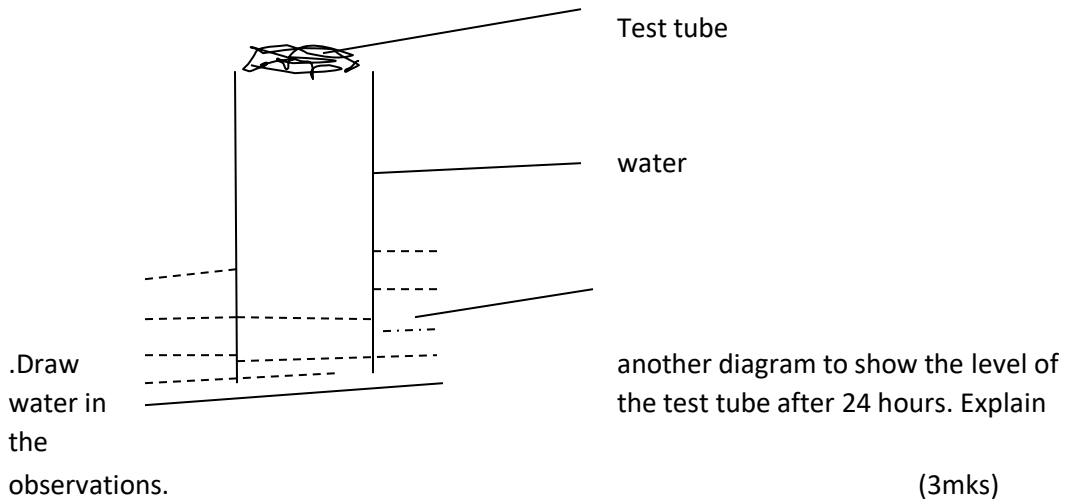
(ii). State and explain one observation made on the moist iron after 24 hours.   (2mks)

(iii). State one disadvantage of rusting.   (1mk)

(iv). Fractional distillation of liquid air is usually used to separate various gaseous mixtures in air. Explain how nitrogen is obtained.   (1mk)

(v). The PH of a soil sample in a given area was found to be 5.5. an Agricultural officer the addition of lime (calcium
oxide). State the function of lime in the soil.   (1mk)

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STUDENTS' PROGRESASSESSMENT TEST (S.P.A.T)

MID-TERM TWO EXAMS

NAME……………………………………………..……………………………………ADM NO………………………

TIME: 2 HOURS

FORM 2

(KENYA CERTIFICATE OF SECONDARY EDUCATION)

INSTRUCTIONS TO STUDENTS

1. Answer all questions in this question paper .
2. All your answers must be written in the SHEETS provided and attached to this question paper.

1. a) Give seven differences between the first and the second account of creation stories.(7mks)

   (b)State six consequences of sin according to (Gen 3, 4, 6 − 9, 11)   (6mks)

   (c)Outline seven ways in which wrongdoers were punished in Africa society.   (7mks)

2. a)Outline **seven** reasons for the call of Abraham.   (7mks)

   b) Describe how Abraham demonstrated his faith in God.   (8mks)

   c) Identify ways in which Christians demonstrate their faith in God.   (5mks)

3. a) Outline the Old Testament prophecies about the Messiah.   (8mks)

   b) Outline what angel Gabriel revealed to Mary about Jesus Christ during the annunciation of his birth.

   (6mks)

   c) State **Four** ways in which church leaders are preparing the people for the second coming of Christ.

   (6mks)

4. (a)Explain the circumstances that led to the spread of idolatry in Israel.   (8mks)

   (b)Give **seven** reasons why Elijah faced hostility and danger as a prophet of God.   (7mks)

   (c)Outline the practices of idolatry in the society today.   (5mks)

5. a) Explain ways in which Jesus fulfilled the Old Testament prophesies about the Messiah

   (7 mks)

   b) From the infancy stories(Luke 1&2) explain four occasions when people are given divine revelation that Jesus is the promised messiah   (8 marks)

   c) State five ways in which Christians spread the gospel of Christ   (5 marks

6. (a) State **seven** factors which promote harmony and mutual responsibility in Traditional African Communities.   (7mks)

   (b) Explain the **role** of healers in Traditional African Communities   (7mks)

   (c) Identify **six** factors undermining kinship ties in modern society   (6mks)

SCHOOL………………………………..………DATE…………………………… STUDENT'S SIGN………………….....

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STUDENTS' PROGRESS ASSESSMENT TEST (S.P.A.T)

MID-TERM TWO EXAMS

ENGLISH

Time: 2 Hours

INSTRUCTIONS TO STUDENTS

1. Answer all questions in this question paper .
2. All your answers must be written in the spaces provided in this question paper.

TEACHER'S COMMENT ON THE SUBJECT………………………………………………………
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FOR EXAMINER'S USE ONLY

Question	Maximum Score	Score

1. Functional writing
    2. cloze test
    3. oral skills
    4. comprehension
    5. Grammar
	20
	10
	30
	20
	20	

	100	

1. FUNCTIONAL WRITING

In not more than 250 words,

Write a letter of apology to the head teacher of your school giving reasons as to why you did not attend the school‟s academic day.   (20mks)

CLOZE TEST (10MKS)

Fill in the blank spaces with the most appropriate word.

„I am done! I am done!" my voice echoed in the forest. I wept aimlessly. I did _____ know whether I was weeping because my friend was dying _____ because I had very little hope of _____ the next sunrise _____ fell like a heavy _____ covering the whole country around us. A hyena, which was apparently watching _____helplessness, made anoise which sounded like a hoarse laughter. _____ frightened me so much that I could hear my own _____ beating. I shouted as _____ as my empty stomach would allow me and the _____ ran to the forest. From that day to this, when iam telling this story, I have never been confronted by such a problem.

ORAL SKILLS   (30MKS)

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

I had a dream last
night. I dreamed I had
to pick a mother out.

I had to pick a father too

At first, I wondered what to do,

There were so many there, is seemed,

Short and tall and
thin and stout, But
just before I sprang
awake, I knew what

parents I would
take.

And this surprise and made
me glad; They were the ones
I always had!

Questions.

i) Explain how the poet achieves rhythm in the poem   (3mks)

ii) Which words would you stress in line 7 of this poem?   (2mks)

iii) How would you say the last line of this poem?   (1mk)

iv) You are perfoming this poem to your classmates. How would you know that they are not

concentrating?
                    (4mks) i)

2. Identify the shortcomings in Nyasuguta‟s telephone skills in the following conversation.

Nyasuguta: (Dialing a number) Is that Turbo wholesalers?

Voice 1:   Sorry, wrong number

Nyasuguta: (Tries several other numbers unsuccessfully and eventually gets it
               right) Is that Turbo wholesalers?

Voice2:   Yes it is. Can I help you?

Nyasuguta: I want to order Maize flour.

Voice 2:   How many bales, Madam?

Nyasuguta: Just a minute (turns from the phone and asks her husband how
               many bags they need). Ten bales.

Voice 2:   Any preference in the brand?
Nyasuguta: of course! Everybody goes for pembe brand.
Voice 2:   Anything else, Madam?
Nyasuguta: No. But I want them delivered
Voice 2:   When and what address?
Nyasuguta: Before too long to shop number eight, Musembe shopping centre.
Voice 2:   Pardon, what was the number again?
Nyasuguta: (Impatiently and shouting) 8-9-5
Voice 2:   We will deliver them in an hours time. Thank you Madam. It has
               been a pleasure doing business with you.

a)   Shortcomings
               (5mks) i) ii) iii) iv) v)

b)   Identify instances of etiquette as used by voice
1 and 2   (4mks)

i)

ii)

 iii)

iv)

3. Identify the silent letter / sound in each of the following words.
(6mks) i) Fracas –

ii) Bomb –

iii) feign-

iv) Psychology-

v) wrap -

vi) Juice-

4. In the following sets of words identify/ underline the odd one out.

i) Choir chord chore chain

ii) Gas germinate grace guise

iii) cynic cycle census chat

iv) Chef chain chores charge

v) Ambush Amass Amoeba Amaze

2. COMPREHENSION   (20 MKS)
Read the passage below and answer the questions that follow

TATII'S PROBLEMS

She has lived a state of uncertainty since 1982. Her life has been <u>dreary</u> and full of disappointments. Her parents have been strict and <u>demanding</u>. She has had not time to visit her friends and cousins living upcountry. Every time, she has asked her parents to let her go and pay a visit to her friends, they have said, "You cannot go to visit your friends until you have finished your studies. Life had become very difficult in this country because of too many jobless young people. The situation has been made worse by the great number of examinations failures. No daughter of ours is going to be

like these unemployed people. So you see, Tatii, you cannot go upcountry until your „O" levels are over.

It has been like that for the past four years. Her life has been that of a <u>zombie</u>. She has listened to her mother"s <u>sighs</u> and her father"s preaching. The „O" level results are out and her parents won"t believe that she has not passed.

What is she going to tell them? She had hoped to please her parents by <u>securing entrance</u> to the university, but all is now lost. Yes nearly lost. All would have been lost if Mrs. Ngueso, the school career teacher, hadn"t been called in to calm down Tatii and advise her parents.

Poor Mrs. Ngueso! She has had quite a task to save Tatii from her <u>harsh</u> parents. Tatii"s father has been the most difficult one to convince that Tatii is not the only girl who has failed her „O" level examinations. As soon as he had seen Mrs Ngueso, he had started complaining that teachers no longer caned the children to make them work hard enough to pass their examinations. at some point in his discussion with Mrs. Ngueso, Tatii"s father had nearly lost his temper. But Mrs. Ngueso had been his match! She had <u>braved</u> his <u>sour looks</u> and insisted that it was Tatii they had met to discuss and not just any other school child.

She said, Tatii has worked well, but I has constantly appeared as if she has lacked the social support she needed to succeed. Tatii is a very girl but she has been very unhappy. Particularly lately. Sir, the girl needed moral support from you, her parents, as well as from school. The school can give some <u>moral</u> <u>support</u> and the academic support a child needs. But most of all the parents have always been expected to encourage their children in the most <u>crucial movements</u> of their life. May be you and to some extent the school, owe Tatii some assistance.

Now Tatii"s mother spoke for the first time. "Baba Tatii, let us do as Mrs. Ngueso says. The child has been very unhappy. I haven"t told you this bhut since the appearance of the examination results I have lived in fear. Tatii has behaved very strangely at times. Her friends have reported that she was planning to run away from home. Please let us give her a second chance"

Tatii"s father turned and looked at his wife for the first time sine Mrs. Ngueso arrival. He saw in her pleading eyes the pain of a loving mother. He quickly looked away. At that moment he realized how very blind he had been to his wife and daughters suffering. He rose to leave, turned and extended his hand to Mrs. Ngueso and said, ;Thank you very much, mwalimu Tatii will be in school at the beginning of term. Then he left the room.

2.1 Why does the author describe Tatii life as having been dreary?   (1mk)

2.2 What excuse have Tatii parents constantly given for not allowing her to visit her relatives and friends.

(2mk)

2.3 Why was Tatii so unhappy after the results of the examinations came out.   (1mk)

2.4 What was Tatii father reactions to her results?   (1mk)

2.5 State the reasons Mrs. Ngueso gives for Tatii problems   (2mks)

2.6 What evidence is there in the passage to show that Tatii mother was more understanding than the father?

(3mks)

2.7 Compare Mrs Ngeuso"s character and that of Tatii"s father. Put your answer in the table below.

(4mks)

Character	Character Trait	Illustrations from the text
Mrs. Ngueso		
Tatii"s Father		

2.8 Explain the meaning of the following words and phrases as used in the passage

Dreary

Demanding

Zombie

Security entrance

Harsh

Braved   (6mks)

GRAMMAR. (20MKS)

1. Give the plural forms of the words listed below.

   a) Ox –

   b) stadium –

   c) Radius-

   d) Oasis –

   e) Goose-   (3mks)

2. Rearrange the following words the order in which they would appear in the dictionary.

   a) trachea, tweet, tragedy, thump, thirst.

   b) Mongrel, Frenzy, target, puzzle.

   c) climate, cataract, cokpit, captive, cock

   d) Head lamp, headgirl, headboy, head teacher   (2mks)

3. Complete the following collective nouns using the appropriate word.

   a) A_____ of journalists.

   b) A _____ of flowers.

   c) A _____ of judges

   d) A _____ of monkeys

   e) A _____ of sheep.   (2 ½ mks)

4. The words below are misspelled, correct them.

   a) profesar
   b) Tomorow
   c) Imediately
   d) Pronounciation   (2mks)

5. Use suitable pronouns to replace the underlined nouns.

   a) The wheather is changing. The <u>wheather</u> is becoming rather chilly. (2mks)

b) Mary took the book. She said it was <u>Mary"s</u>.   (2mks)

c) People don"t like liars. <u>People </u>say liars are no better than murderers.

d) <u>Otieno</u> is a very good leader.   (2mks)

6. Join the following sentences using the conjunctions listed below.
Avoid unnecessary repetition, and, but so also, or.

a) Tigers are beautiful animals. Tigers are dangerous animals.

b) You can borrow my pen. You can buy one from the shop.

c.They went to the theatre. They bought tickets for "passion of Christ"

d) The train was booked up. I went by Akamba bus.   (2mks)

7. Rewrite the following sentences using either the comparative or superlative form of
   adjectives in brackets.

a)   Statistics show that (much) enegy is consumed by industry than by individuals.

b)   Susan is the (tall) girl in our class.

c)   This book is (expensive) than that one.

d)   The Atacama Desert in Chile is the (dry) in the world.   (2mks)

8. Fill in the blanks in the following passage with appropriate prepositions.

Breakfast was usually served _____ 6.30 am. Every recruit _____ the camp

was expected to be _____ the parade ground _____ 7.15 am.

_____ this particular Wednesday I had woken up feeling very low and my head was

clouded _____ a myriad _____ thoughts _____ the impending

events _____ the camp.

(4 ½ mks)

NAME --INDEX NO--------------------------------

DATE_____ CANDIATES SIGNATURE _____

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F2 GEOGRAPHY

AMOBI SOFT COPY PUBLISHERS
STUDENTS' PROGRESS ASSESSMENT TEST (S.P.A.T)
MID-TERM TWO EXAMS

INSTRUCTIONS TO CANDIDATES

This paper has two sections A and B

Answer all the questions in Section A and B

All answers must be written in the answer booklet provided

This paper consist of 8 printed pages candidates should check the questions paper to ascertain that all the pages are printed as indicated and that no questions are missing

SECTION A

1. a) Define the term solar system (1mk)

   b) List down two theories that explain the origin of the solar system (2mks)

2. a) Give a brief explanation about the origin of the earth (4mks)

b) Fill in the blank spaces on the dimension of the earth (4mks)

   Equatorial diameter

   polar diameter

   equatorial circumference

   polar circumference

c) List down four proofs that the earth is spherical (4mks)

3. a) List down four effects of rotation of the Earth (4mks)

b)with the aid of a well labelled diagram, explain how solar eclipse occurs (4mks)

4. a) Define the term weather (1mk)

   b) List down four factors that determine the amount of solar radiation which reaches the earth surface. (4mks)

5. a) Explain the term humidity (1mk)

   b)Differentiate between absolute humidity and relative humidity (2mks)

6. a) What is the meaning of the term winds? (1mks)

   b) With Aid of well labelled diagrams explain how land and sea breezes occur (6mks)

7. a) Name the four main zones of the atmosphere (4mks)

   b) Differentiate between negative, positive and zero lapse rate. (3mks)

c) What is the ozone layer? (2mks)

d) What is its importance to man? (2mks)

- The table below shows rain fall and temperature in town x use it to answer the questions that follow

Months	j	F	M	A	M	J	J	A	S	O	N	D
Temp °C	23	24	26	28	29	28	26	26	26	30	28	25
Rainfall mm	3	0	3	1	18	500	720	408	300	70	15	0

a) Calculate
 i. The total annual rainfall (2mks)

 ii. The mean monthly rainfall (2mks)

 iii. The annual range of temperature (2mks)

 iv. The mean annual temperature (2mks)

b) Using the table indicate the following
 i. The wettest month (1mks)

ii. The hottest month (1mk)

iii. The coolest month (1mk)

SECTION B

8. a) Define the term Earth movements (1mk)

b) Formation of internal or External land forms by tectonic forces is determined by the following (3mks)

c) List down two types of earth movements (2mks)

a) Give two causes of earth movements (2mks)

b) List down three evidences supporting continental drift theory (3mks)

c) List down three types of boundaries associated with plate tectonic movements (3mks)

9. a) Define the term folding (1mk)

b) Briefly explain the process of folding (3mks)

c) List down three different types of folds (3mks)

d) List down three features resulting from folding (3mks)

c) Fill in the gaps below (5mks)

Fold mountain   where found

i.   Atlas   _____

ii.   _____   Europe

iii.   _____   Asia

iv.   Andes   _____

v.   _____   North America

f) Give three significances of folding to human activities (3mks)

10. a) Define the term faulting (1mks)

    b) List down three types of faults (3mks)

    c) i)What is a rift valley? (1mk)

    ii) Mention three ways in which the rift valley may have been formed (3mks)

11. a) Explain the meaning of the following terms;
       i.   A picture (1mk)

      ii.   A map (1mk)

     iii.   A plan (1mk)

    b) Give three uses of maps (3mks)

NAME --INDEX NO---------------------------------

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F2 HISTORY

Term 1

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STUDENTS' PROGRESS ASSESSMENT TEST (S.P.A.T)

MID-TERM TWO EXAMS

Instructions:

Answer all the questions

SECTION A (25 MARKS)

1. Identify two main branches of the study of History. (2mks)

2. State two limitations of relying on oral tradition as a source of information on history. (2mks)

3. Name the type of picture writing used in Egypt. (1mk)

4. Identify two ways used by early man to obtain food during the middle stone age. (2mks)

5. Name one remaining Southern Cushitic group in Kenya. (1mk)

6. State two functions of the Kambi among th MijiKenda. 2(mks)

7. State one contribution of Ludwig Krapf in the spread of Christianity in Kenya. (1mk)

8. Give one example f regional trade in Africa. (1mk)

9. Mention two factors that make the camel a good pack anima. (2mks)

10. State two limitations of using cell phones. (2mks)

11. Give the contribution for Wright brothers in the development of transport.

12. Give the main contribution for Junas Edward Salk in the field of medicine. (1mk)

13. Identify two uses of Bronze during the pre-colonial period. (2mks)

14. Give two ways in which one can qualify to become a Kenyan citizen. (2mks)

15. Give two methods of conflict resolution. (2mks)

SECTION B (45 MARKS)

16. (a) State three functions of the Orkoiyot among the Nandi. (3mks)

    (b) Explain six results of Cushites migration in Kenya. (12mks)

17. (a) State five agricultural practices in Europe before the Agrarian Revolution. (5mks)

(b) What were the results of development of early agriculture in Mesopotamia? (10mks)

18. (a) Give five factors that led to the development of trans-Saharan trade. (5mks)

    (b) Explain five factors for the decline of the Trans-Atlantic trade. (10mks)

    (i) Decline in demand of sugar – reduced the demand for slaves.

    (ii) Independence of America – it deprived the British of Profits made from the slave trade.

    (iii) Industrial revolution

    - Machines replaced human labnour as they were more efficient

    (iv) Anti – slavery movement – Christian missionaries advocated for abolition of slave trade

    (v) Economic views – influencial economists like Adam Smith advanced argument for a free enterprise economy.

    (vi) American civil war – a civil war between North and South over institution of slavery – The North which was against slavery won the war leading to abolition of slavery in USA

    (vii) Slavery revolts e.g. in Jamaica, Antique

    (viii) Contribution of Africans –s ome Africans actively campaigned against slave trade e.g. King Nzinga

19. (a) Identify five political responsibilities of a Kenyan citizen. (5mks)

20. (a) Identify five political responsibilities of a Kenyan citizen. (5mks)

(b) Explain circumstances which may force the government to limit the right to freedom of movement and residence

(10 mks)

21. (a) Identify three national symbols. (3mks)

(b) Explain six factors which have enhanced national unity in Kenya since independence   (12 mks)

Jina .... Nambari yako :...........................

Shule .... Sahihi .... Tare.......................

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KISWAHILI
KARATASI 2
LUGHA
MUDA: SAA 2½

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STUDENTS' PROGRESS ASSESSMENT TEST (S.P.A.T)

MID-TERM TWO EXAMS

MAAGIZO

• *Andika **jina lako** na **namba yako** katika nafasi ulioachiwa hapo juu.*

• *Jibu maswali yote.*

• *Andika majibu yako katika nafasi ulizoachiwa katika kijitabu hiki cha maswali.*

• ***Karatasi hii ina kurasa 7 zilizopigwa chapa.***

• ***Watahiniwa ni lazima waangalie kama kurasa zote za karatasi hii zimepigwa chapa sawasawa na kuwa maswali yote yamo.***

KWA MATUMIZI YA MTAHINI PEKEE

Swali	Upeo	Alama
1	15	
2	15	
3	40	
4	10	
Jumla	80	

1. UFAHAMU   (ALAMA 15)

Soma makala yafuatayo kisha ujibu maswali.

Mojawapo kati ya misingi na nguzo za maendeleo uliwenguni ni viwanda. Viwanda ni muhimu kwa kuwa ndivyo vinavyoigeuza malighafi inayopatikana na kuwa bidhaa zinazoweza kutumiwa na watu. Katika nchi zinazoendelea, ambazo hazina uwezo mkubwa wa mitaji viwanda vinavyoimarika ni vile vidogo. Hivi ni viwanda ambavyo huhusisha amali za mikono. Kuimarika kwa viwanda hivi vidogo kunatokana na sababu mbalimbali.

Nchi zinazoendelea huwa na masoko finyu sana kwa kuzingatia uwezo wa ununuzi wa wanaolengwa na bidhaa za viwanda . Katika msingi huu viwanda vikubwa vitawiwa ugumu kufanya biashara katika mazingira ambako masoko yake ni finyu au utashi wa bidhaa zake sio mkubwa. Viwanda vidogo pia vinao uwezo wa kuwaajiri wafanyikazi wengi hasa kwa kuwa havina uwezo wa kugharamia mashine. Uajiri huu wa wafanyikazi wengi ni muhimu katika maeneo mengi ambako tatizo la ajira ni mojawapo wa matatizo sugu. Tofauti na mataifa ya kitasmia (yenye viwanda vingi) mataifa mengi yanayoendelea hayana mifumo imara ya kuwakimu watu wasiokuwa na kazi. Utegemezi wa jamaa wanaofanya kazi kwa hivyo unakuwa nyenzo ya pekee ya kuyamudu maisha.

Kuanzisha viwanda vidogo vidogo hakuhitaji mtaji mkubwa tofauti na viwanda vikubwa. Hali hii inasahilisha uwezekano wa watu wengi kujasurisha shughuli yoyote ile. Sambamba na suala hili ni kuwa ni rahisi kujarisha bidhaa mpya kwa kiwango kidogo cha kiwanda kidogo. Ikiwa mzalishaji yeyote atazalisha bidhaa mpya kwa mapanu, kwa mfano kama ilivyo kwa viwanda vikubwa, pana uwezekano wa kupata hasara kubwa. Huenda utashi wa bidhaa hiyo uwe mdogo ukilinganishwa na ugavi wa bidhaa yenyewe. Majaribio mazuri huwa ni kwa kiwango kidogo.

Kuwepo kwa viwanda vidogo huwa chocheo kubwa la usambazaji wa viwanda hadi maeneo ya mashambani. Hali hii inahakikisha kuwa nafasi za ajira zimezambazwa nchini hali ambayo inasaidia kuhakikisha kuwa pana mweneo mzuri wa kimapato nchini. Mweneo huo wa mapato unachangia katika kuboresha uwezo wa kiununuzi wa umma. Huu ni msingi muhimu wa maendeleo. Upanuzi na ueneaji wa viwanda vidogo vidogo ni msingi mkubwa wa kujitegemea kiuchumi. Aghalabu viwanda vikubwa huegemea kwenye mitaji ya mashirika ya kimataifa na huwa msingi wa kuendelezwa kwa utegemezi wa kiuchumi.

a) Kwa nini viwanda ni muhimu?   (alama 2)

   …………………………………………………………………………………………………

   …………………………………………………………………………………………….

b) Ni nini kiini cha matatizo ya uuzaji wa bidhaa katika nchi zinazoendelea?   (alama 2)

   …………………………………………………………………………………………………

   …………………………………………………………………………………………….

c) Eleza faida zinazotokana na kuwepo kwa viwanda vidogo vidogo.   (alama 4)

………

………

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………

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………

d) Usambazaji wa viwanda katika maeneo ya mashambani una faida gani? (alama 4)

………………………………………………………………………………………………………

………………………………………………………………………………………………………

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e) Fafanua maana ya msamiati huu kama ulivyotumika katika kifungu.   (alama 3) i. Kujasurisha

…………………………………………………………………………………………. ii. Amali

………………………………………………………………………………………………….

iii.   Utashi

………………………………………………………………………………………………….

2. UFUPISHO (ALAMA 15)
Soma kifungu kifuatacho kisha ujibu maswali yanayaofuata.

Tume ya kutathmini mishahara (SRC) inafaa kuchunguza kwa makini pendekezo la kutaka umri wa kustaafu kwa watumishi wa uma upunguzwe kutoka miaka 60 hadi 55.

Kulingana na SRC, kupunguzwa kwa umri wa kustaafu kutasaidia kupunguza mzigo mzito wa mishahara ambayo hupewa wafanyikazi wa umma na kuacha kiasi kidogo tu cha fedha wa ajili ya miradi ya maendeleo. Kufanya hivyo ni sawa na kukata mguu kwa sababu una kidonda kabla ya kuutafutia matibabu.

Ikumbukwe kuwa, umri wa kustaafu kwa watumishi wa umma nchini uliongezwa miaka mitano iliyopita kutoka miaka 55 hadi 60 baada ya Serikali kung'amua kuwa zaidi ya wafanyikazi 20,000 wa umma na walimu walitaka kulipwa pensheni, hivyo kuwa mzigo mkubwa kwa Serikali.

Wakati mjadala wa kutaka kupunguza mishahara minono ambayo watumishi wa umma wanapokea na kuacha masazo kwa ajili ya maendeleo kuzuka mwezi Machi, mwaka hu, Rais, naibu wake pamoja na baraza la mawaziri walitangaza mishahara yao ipunguzwe. Rais pia aliwashinikiza wakuu wa mashirika ya umma kufuata nyayo la sivyo wapigwe kalamu nyekundu.

Mathalani, wasomi wa masuala ya uchumi nchini China, ambapo umri wa wastani wa kustaafu ni miaka 53, wanajikuna kichwa sasa ili kutafuta mikakati ya kuongeza umri huo hadi miaka 65 katika kipindi cha miongo miwili ijayo kutokana na kiasi kikubwa cha fedha kinachotumika kuwalipa wanaostaafu pensheni zao.

Wasomi wa uchumi nchini humo wanadai kuwa pengo lililopo, baina ya umri wa kustaafu wa miaka ma wastani wa umri ambao. Wachina wanastahili kuishi wa miaka 75, ni kubwa mno hivyo kuongeza uwezekano wa mtu kuendelea kuchukua malipo ya baada ya kustaafu kwa zaidi ya miaka 10. Kwa mujibu wa wanauchumi, hali hiyo imesababisha Msongamano mkubwa katika hazina ya malipo ya uzeeni. Suala hilo lilisababisha Serikali kualika masharika mbalimbali duniani yakiwemo Benki ya Dunia na Shirika la Wafanyikazi Ulimwenguni (ILO) kutoa mapendekezo ya kuhusiana na hali hiyo.

Benki ya Dunia ilishauri China kuongeza umri wa kustaafu ili kupunguza kiasi kikubwa cha fedha zinazotumika kulipa waliostaafuu malipo ya baada ya uzeeni. Nchini Uturuki, mtu anatakiwa kustaafu baada ya kuifanya kazi kwa kipindi cha miaka 25. Hiyo inamaanisha kuwa mtu akianza kuifanya kazi akiwa na umri wa miaka 20 atatakiwa kustaafu anapotimiza miaka 45.

Hata hivyo, hatua hii ya kustaafisha watu mapema, imekuwa na athari chungu nzima kiuchumi nchini humo huku ikikadiriwa kuwa kufikia mwaka wa 2045 taifa hilo litakuwa likitumia asilimia 6 ya mapato yake kulipa pensheni, endapo mambo hayatabadilishwa.

Hayo ni mataifa machache kati ya mengi ambayo yamejaribu kupunguza umri wa kustaafu na kujutia baadaye. Serikali inafaa kutafuta njia mbadala kukabiliana na tatizo hilo na wala sio kuwaachisha kazi mapema.

(a)   Kwa maneno yasiyozidi 50, Eleza sababu za kuoengeza umri wa kustaafu kutoka miaka 55 hadi
60 na athari zake.   (Alama 7)

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(b) Kwa maneno yako mwenyewe Fupisha aya tatu za mwisho. Tumia maneno 70.   (Alama 8)

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NAKALA SAFI

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3. MATUMIZI YA LUGHA.   (ALAMA 40)

   (a) Taja sifa tatu kuu za sauti /k/.
        (alama 3)

....

....

....

   (b) Bainisha nomino katika sentensi zifuatazo kisha utaje aina zake.
        (alama 5)

   i.   Uhusiano wa baba huyu una mvuto mkubwa

        ....

        ....

…… ii. Kabati hili limevamiwa na wadudu wengi waharibifu.

………

………

(c) Andika kinyume cha;

Wazee walifukua shimo lililpfunikwa. (Alama 2)

……

…….

(d) Andika kwa wakati ujao: Ungalifanya kazi kwa uaminifu usingalipigwa kalamu. (alama 2)

……

……

(e) Unda vitenzi kutokana na vivumishi vifuatavyo. (alama 2)

(i) Bora

………

(ii) Refu

………

(f) Tunga sentensi nne kuonyesha matumizi tofauti ya alama ya kinukuu. (alama 4)

………

………

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………

……… (g) Kanusha sentensi zifuatazo. (alama 4) i. Watoto wametembea.

....

....

ii. Watatunza Jona na Hamisi.

....

....

(h) Nomino zifuatazo ni za ngeli zipi ?   (alama 4)

I.   Shimoni

....

II.   Sukari

....

III. Uji

....

IV.   Mijusi

....

(i) Andika vitenzi vifuatavyo katika hali zilizomo mabanoni.   (alama 4)

I.   Tembea (tendesha)

....

II.   *Ku*la (tendewa)

....

III.   Lima (tendeshana)

....

IV.   Penda (tendana)

....

(j) Andika katika ukubwa.   (alama 4)

I.   Chungu kilichovunjika kilikuwa kipya.

....

....

II.   Mto huo umefurika.

………

(k) Unda nomino moja moja kutokana na :   (alama 3)

   I.   Kulea

   ……………………………………………..

   II.   Fikiria

   ……………………………………………..

   III. –erevu

   ……………………………………………..

(l) Bainisha vielezi katika sentensi ifuatayo.   (alama 3)

   Mlevi aliyelewa chakari ataelekea nyumbani jioni.

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4. ISIMU JAMII (ALAMA 10)

Jera:	Mbili kwa hamsini! Moja kwa thirty! Leo ni bei ya hasara!
Reja:	Unauza hii tight kwa pesa ngapi?
Jera:	Hiyo ni eighty bob mtu wangu
Reja:	Huwezi kunipunguzia. Niuzie forty hivi.
Jera:	Haiwezekani mtu wangu. Nitapata hasara nikiuza hivyo. Ongeza mbao, brother.
Reja:	Basi hamsini na tano.
Jera:	Tafadhali ongeza kitu kidogo. Unataka nikule hasara leo? Fikisha sitini.
Reja:	Sawa basi nitanunua. Shika sixty bob.
Jera:	Asante Customer. Mungu akubariki.

(a) Tambua sajili hii.   (alama 2)

   ……

   ……

(b) Huku ukitoa mifano, eleza sifa nne za sajili hii.   (alama 8)

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NAME --ADM---------------------------------

DATE_____

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STUDENTS' PROGRESS ASSESSMENT TEST (S.P.A.T)

MID-TERM TWO EXAMS

F2 MATHEMATICS

Term 1

<u>ANSWER ALL THE QUESTIONS IN THE SPACES PROVIDED BELOW EACH</u>

<u>QUESTION</u>

<u>SECTION 1(50 MARKS)</u>

1. Evaluate $\dfrac{-8 \div 2 + 12 \times 9 - 4 \times 6}{56 \div 7 \times 2}$ [3 Marks]

2. A matatu travelling at 56 Km/h take 2 ½ hours to move from town A to town B. Find the distance between towns A and B. [2 Marks]

3. Determine the gradient and the co-ordinates of the x and y intercepts of the line whose equation is $2y + 3x = 1$ [3 Marks]

4. Find the correct 3s.f the value of

$$\frac{1}{6.43} + \frac{2}{3.56} + \frac{1}{8.51}$$

[2 Marks]

5. Without using mathematical tables, evaluate
   [3 Marks]

$$27^{2/3} \times \left(\frac{81}{16}\right)^{-1/4}$$

6. The diagonals of a rhombus measure 9.2 cm and 7.5 cm respectively. Calculate the area of the rhombus
   [2 Marks]

7. A man is three times as old as his daughter. In twelve years time he will be twice as old as his daughter. Find their present age.
   [3 Marks]

8. Use logarithm tables to evaluate
   [4 Marks]

$$\sqrt[4]{\frac{37^2 \times 0.0168}{75.63}}$$

9. An artisan has 63Kg of metal of density 7000Kg/m³. He intends to use it to make a rectangular pipe with external dimension 12 cm by 15 cm and internal dimension 10 cm by 12 cm. calculate the length of the pipe in metres.
   [4 Marks]

10. Determine the equation of a line that passes through (-2,5) and is parallel to the line whose equation is $5y + 2x = 10$
    [4 Marks]

11. Use the elimination method to solve the simultaneous equations

$$2x + 3y = 1$$

[4 Marks]

$$3x = 2y + 8$$

12. A trader sold a wrist watch for sh. 3,150 after giving a 10% discount. Find the marked price of the watch.

[2 Marks]

13. Express as a fraction in its lowest form

[3 Marks]

3. $7\ddot{1}$

14. Seven people can build five huts in 30 days. Find the number of people working at the same rate that will build nine similar huts in 27 days.

[3 Marks]

15. The size of each interior angle of a regular polygon is five times the size of the exterior angle. Find the number of sides of the polygon.

[3 Marks]

16. Line AB below shows a side of triangle ABC. BC= 5cm and angle ABC = $60°$

A   B

a. Using a ruler and compass only, complete the triangle ABC.
        [2 Marks]

b. From C construct a perpendicular to meet line AB at point N. Measure
    length CN in centimetres
            [2 Marks]

c. Determine the area of triangle ABC
        [1 Mark]

SECTION B [50 MARKS]

17. Complete the tables below for the equations of the lines $y = -\frac{3}{4}x + 4$ and
$y = -3 + 2x$

a. $y = -\frac{3}{4}x + 4$

x	-2	0	2
y		4	

$y = -3 + 2x$

x	-2	0	2
y		-3	

b. using one big square to represent 1 unit on y – axis and 2 big squares to represent 1 unit on x – axis, draw the lines $y = -\dfrac{3}{4}x + 4$ and $y = -3 + 2x$ [5 Marks]

c. use your graphs to solve the simultaneous equations
$$3x + 2y = 8$$
[1 Mark]
$$2x - y = 3$$

18. a school hall measure 10m long, 7m wide and 4m high. All its inside walls and ceiling are painted.
Calculate,

    i.   the total surface area painted
   ii.   the cost of painting at 200/= per square metre.
          [10 Marks]

19. a bird flies from tree P to another tree Q which is 50m on a bearing of 030° from P. from Q the bird flies 80m due west to another tree R and finally flies due south to another tree S which is on a bearing of 120° from P.

   a. using the scale 1cm = 10m, construct an accurate scale drawing showing the positions of P,Q,R, and S
   [5 Marks]

   b. by measurement from your scale drawing determine;
   i. the distance and bearing of R from Q
      [2 Marks]
   ii. the distance and bearing of S from R
      [2 Marks]
   iii. the distance of S from P
      [1 Mark]

20. a. On a Cartesian plane plot and draw the triangle ABC, A(1,2), B (1,6), C (5,5)
    [2 Marks]

b. Draw the image of triangle ABC after reflection on the line y= x

c. Draw $\triangle$ A"B"C" the image of $\triangle$ ABC after reflection along y – axis   [2 Marks]

d. Draw $\triangle$ A"B"C" the image of A'B'C' after rotation through -180° about the origin[2 Marks]

e. Determine the mirror line that makes $\triangle$ A'''B'''C''' the image of triangle ABC [2 Marks]

21. The table shows recordings from surveyors' field book.

B

	280	
E25	200	
	160	B 80
C70	120	
	100	D 50

A

a. Draw a sketch diagram from the data in the field book
   [2 Marks]

b. Given that the recordings are in metres, determine the area of the land in hectares.
[8 Marks]

NAME:………………………………………   ADM NO……………….

CLASS:………………………………….....   DATE:………….……….

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STUDENTS' PROGRESS ASSESSMENT TEST (S.P.A.T)
MID-TERM TWO EXAMS

PHYSICS

FORM II

TIME: 2 ½ HOURS

TERM 1

INSTRUCTIONS TO CANDIDATES

a) Write your name and admission number in the spaces provided above.

b) This paper consists of TWO sections: A and B

c) Answer All questions in section A and B in the space provided.

d) Show all the steps in your calculations, giving your answers at each stage in the spaces below each question.

Take: Acceleration due to gravity $g = 10m/s^2$

Density of water 1 g/cm^3

Density of mercury 13.6 g/cm^3

NB: Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

Prefer Calling Sir Obiero Amos @ 0706 851 439 for the Marking Schemes

SECTION A (50 MARKS)

1. Draw a vernier caliper scale to show a reading of 3.36cm

   (2 mks)

2. The figure below shows the change in volume of water in a measuring cylinder when an irregular solid is immersed in it.
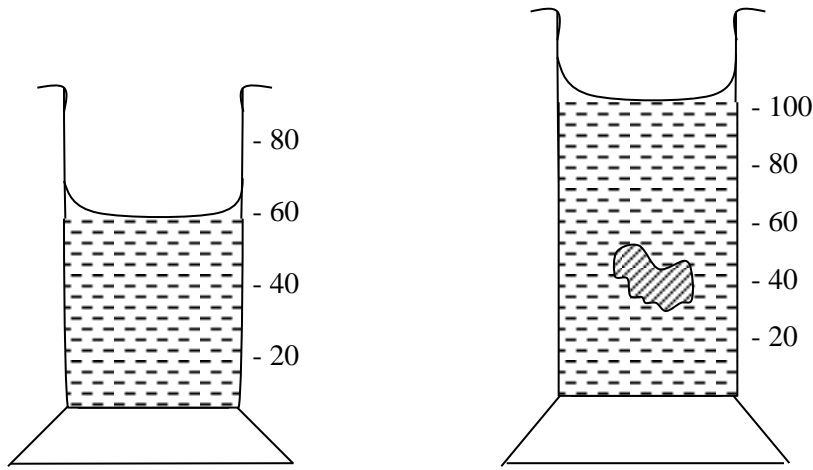

   Given that the mass of the solid is 567g determine the density of the solid in Kg/m^3. (Give your answer correct to 2 d.p)

   (3 mks)

3. A small drop of oil has a volume of $5 \times 10^{-8} m^3$. When it is put on a surface of some clean water, it forms a circular film of $0.1m^2$ in area.

i. What is the size of a molecule of oil

(3 mks)

ii. State 2 assumptions you made in your calculations

(2 mks)

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4. A body weighs 600N on the surface of the earth and 450N on the surface of another planet. Calculate the value of g in that planet (g on the earth = 10 N/Kg)

(3 mks)

5. The diagram below shows the behaviour of mercury in a capillary tube. Explain this observation

(3 mks)

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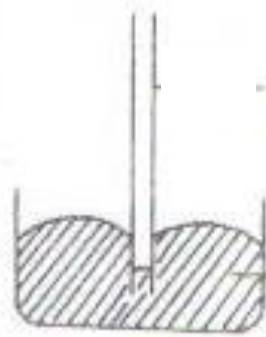
6. How does temperature rise and impurities affect the surface tension of water

(2 mks)

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7. The diagram below shows a soap film trapped in a wire loop with a loose thread passing through

A — Soap film

Wire loop
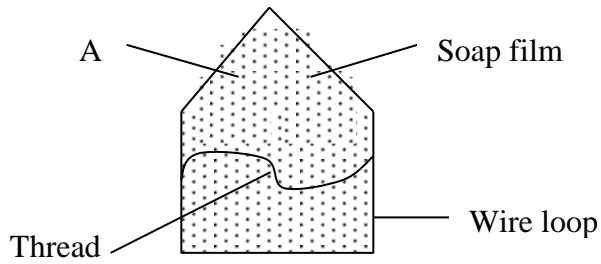
Thread

The film is then ruptured at point A

a) Redraw the diagram to show how the thread is affected
   (2 mks)

b) Explain why the thread behaves in this manner
   (2 mks)

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8. The reading on a mercury barometer at Mombasa is 760mm. calculate the pressure at Mombasa (density of mercury = 1.36×10^4 Kg/m^3)

(3 mks)

9. Explain the reason why a person moving from lowland to highland is likely to suffer a hose bleeding

(3 mks)

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10. Describe a simple experiment to show that pressure in liquid increases as depth increases

(3 mks)

11. Distinguish between the three states of matter in terms of particle spacing and kinetics
(3 mks)

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12. Explain why the blades of a panga feels colder than the wooden handle when touched with a finger after exposure to low temperatures
(2 mks)

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13. The figure below shows a ray of light being incident on a mirror
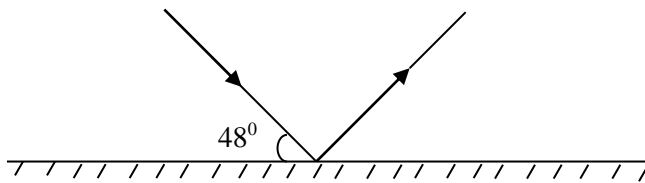
What is the angle of reflection
(3 mks)

14. The diagram below shows a "couple" in action
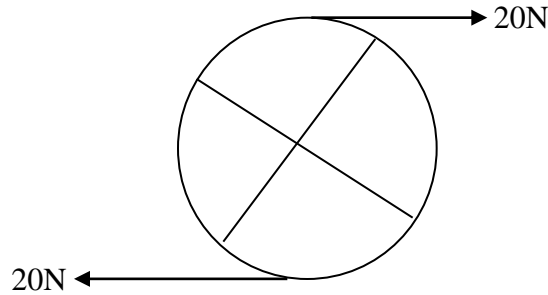
Given that the diameter of the wheel is 0.6m, determine the moment to the couple

(3 mks)

15. State the basic law of magnetism

(2 mks)

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16. Draw the magnetic field pattern for the magnets shown below

(2 mks)

N		S

17. Explain the reason why a freely suspended bar magnet comes to rest pointing in the N – S direction

(3 mks)

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18. Explain why repulsion is the only sure test for magnetism

(2 mks)

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SECTION B (50 MARKS)

19. The figure below shows an electromagnet
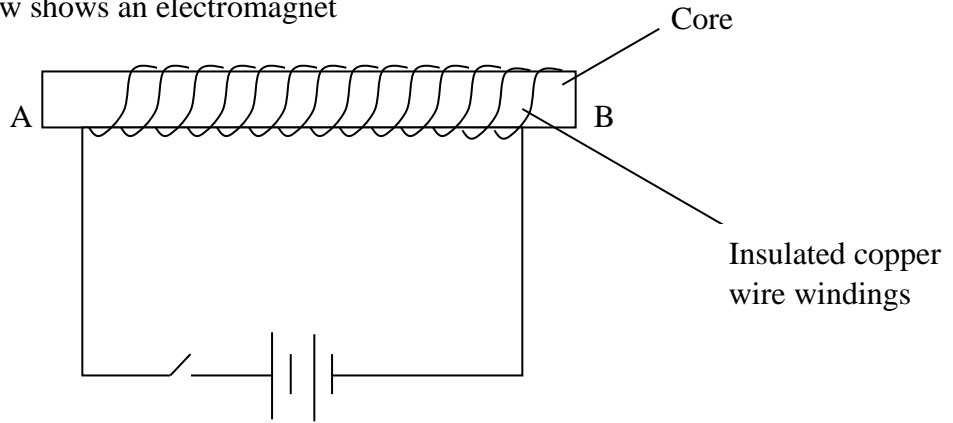
i.   Explain why the core is made up of iron and not steel
      (2 mks)

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      …………………………………………………………………………………
      …………………………………………………………………………………
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ii.   On the same diagram indicate the direction of the current flow when the switch is
      closed

(1 mk)

      …………………………………………………………………………………
      …………………………………………………………………………………
      ……………………

iii. When the current is allowed to flow through the electromagnet it is magnetized.
   Identify the poles of the magnet
      (2 mks)

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      …………………………………………………………………………………
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iv.   Give the name of the law you have used to determine the poles and state it

        (3 mks)

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v.   Explain what would happen if the current is allowed to flow for a long time

        (2 mks)

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20. Brownian motion of smoke partides can be studied by using the apparatus shown below.
    To observe the motion, some smoke is enclosed in the smoke cell and then observed
    through the microscope as shown below
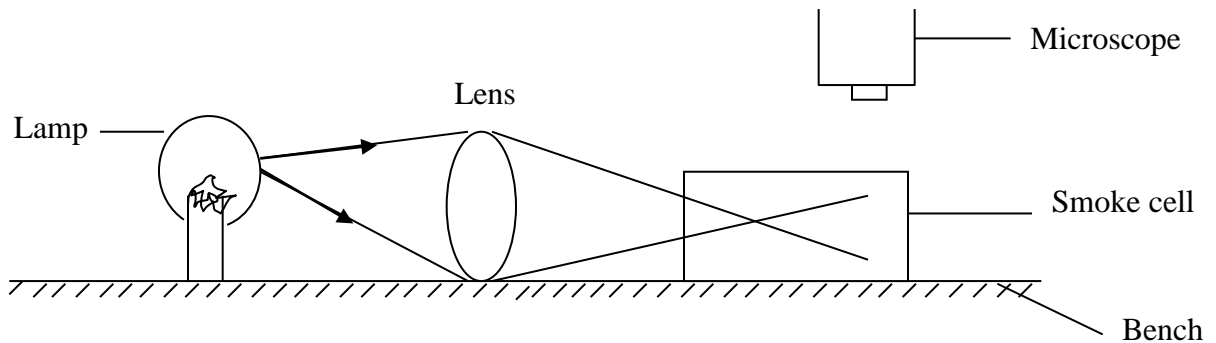
a) Explain the role of the smoke particles, lens and microscope in the experiment
        (6 mks)

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b) State and explain the nature of the observed motion of the smoke particles

(3 mks)

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c) State what will be observed about the motion of the smoke particles if the temperature surrounding the smoke cell is raised slightly

(1 mk)

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....

21. a) State the principle of moments

(2 mks)

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b) The diagram below shows a uniform wooden beam of length 6m and mass 30kg
    pivoted as shown below

| 4.5M | | 65Kg |
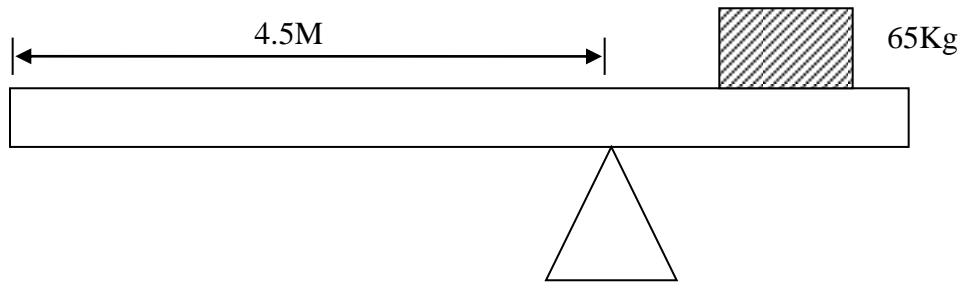
How far from the pivot will the 65kg mass be for the beam to be in equilibrium
    (3 mks)

c) A uniform metre rule of weight 100N is suspended horizontally by two vertical
    springs P and Q placed 20cm and 30cm from its ends respectively. Calculate the force
    (tension) in each string

F1   F2
    P   Q
200M   300M

A   B

100N

(
5
m
k
s
)

|
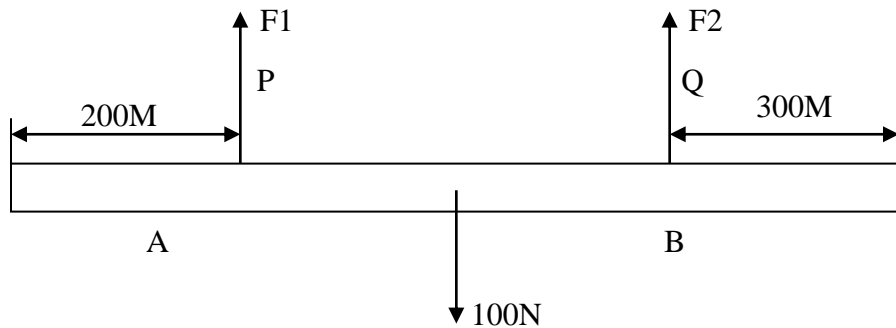
Prefer Calling Sir Obiero Amos @ 0706 851 439 for the Marking
Schemes

22. In an experiment to determine the density of a soil using a density bottle, the following measurements were recorded.

Mass of empty density bottle = 42. 9g

Mass of density bottle full of water = 66.1g

Mass of density bottle with some soil = 67. 2g

Mass of density bottle with soil filled up with water = 82.0g

Use the above data to determine the:-

a) Mass of water that completely filled the bottle

(2 mks)

b) Volume of water that completely filled the bottle

(1 mk)

c) Volume of the density bottle

(1 mk)

d) Mass of soil

(1 mk)

e) Mass of water that filled the space above soil

> (1 mk)

f) Volume of soil

> (1 mk)

g) The density of the soils

> (2 mks)

23. The figure below shows the features of a dry cell (lenclanche). Use the information in the figure to answer the following questions.
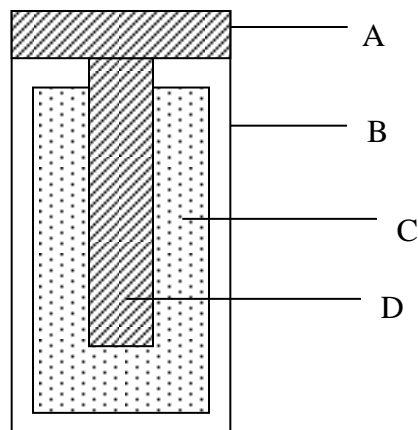
a) Name the parts

   (4 mks)

   A…………………………………………………………………………………………………
   ……………..

   B…………………………………………………………………………………………………
   ……………..

   C…………………………………………………………………………………………………
   ……………..

   D…………………………………………………………………………………………………
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b) Explain the purpose of B

   (2 mks)

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c) State 2 defects of a dry cell and give their remedies

   (4 mks)

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