NAME: ...............................................................INDEX NO: ........................

SCHOOL: .............................................SIGNATURE: ...............................

DATE: ....................

101/1
ENGLISH
Paper 1
(Functional Skills, Cloze Test and Oral Skills)
March, 2019
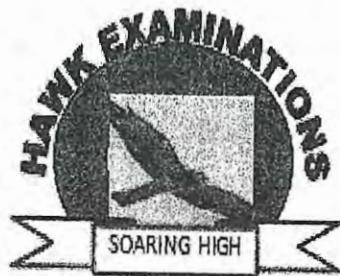


# HAWK- I JOINT EXAMINATIONS – 2019

## Kenya Certificate of Secondary Education. (KCSE)

### 101/1
### ENGLISH
### Paper 1
### Time: 2 Hrs

## Instructions to candidates

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

### FOR EXAMINER'S USE ONLY

| Question | Maximum Score | Candidate's Score |
|---|---|---|
| 1. Functional Skills | 20 | |
| 2. Cloze Test | 10 | |
| 3. Oral Skills | 30 | |
| Total | 60 | |

1

## 2. Cloze Test

**Fill in the blank spaces below with the most appropriate word.**

With only a few days to the start of the national school examination, a number of concerns have (1) _____ raised. Unattended, these issues could compromise the national examinations. Some principals are worried by the late disbursement of funds (2) _____ could make it impossible for schools to acquire exam specimen for practical subjects in (3) _____ time. This speaks of over planning at a critical time when students should not be given a thread (4) _____ hold onto should they not be equal to the examinations.

So (5) _____, 20 schools have been identified as possible centres where examination cheating could recur. This is a label such schools could do without by (6) _____ no avenue for cheating is created to discredit them. A number of head teachers and school managers, in the (7) _____ to post higher mean scores, created liaisons with unscrupulous individuals (8) _____ the Kenya National Examination Council to avail examination material (9) _____ of actual examination date. Through such cheating, a number of students posted results that did not truly reflect (10) _____ competencies.

## 3. Oral Skills

*(a) Read the following narrative and then answer the questions that follow.*

A long time ago, in the land of Agikuyu, young men and women used to form groups to help one another to dig and weed family shambas. Girls' groups would also assist their mothers in looking for firewood in the forest. Each member of the group was supposed to be totally committed to their group and ready to help whenever called upon to do so. After hard day's work, these young men and women would occasionally meet at the village play ground to practice dances for the next competition with young men and women from other ridges. All the year round, the youth were busy and there was no time for idling.

One day, Karendi requested the girls in her group to accompany her t o the forest to cut firewood. All the ten girls in the group carried axes and pangas. They knew the mysterious stories about the forest; it was a home to not only wild animals but also other strange creatures with very strange features. They could change into any form to help them attack their victims. The creatures would sleep during the day and from the sunset, they would be busy looking for food. No human being would be expected in the forest after sunset. The village elders, a group of only the elderly men of the village, kept warning the young women going to the forest about the dangerous creatures.

The path to the forest was narrow and so the girls walked in a single file. It was early in the morning and there was no cause for worry as the strange creatures were still snoring in their hideouts. The girls walked and walked and turns they each recounted the most interesting adventures in their lives; each girl had a humorous encounter after which they would laugh in unison "Ha! Ha! Ha! Haaaaaa! Uuuuuuuu! Tears of joy would rool down their beautiful cheeks. This was a light moment for them.

On their way back, each girl was bending low under a heavy load of firewood. This time they were too tired to tell stories. Suddenly, Waithiru, the leading girl, dropped her firewood and let out a yell.

"I have stumbled over this stump and it now bleeding!"

All the girls dropped their loads and surrounded the bleeding stump. To their astonishment, the stump started singing:

| | |
|---|---|
| Nwari, mwari nuu undermire? | Daughter, daughter who cut me? |
| All the girls except Karendi sang: | |
| Tinii ngutemire, ni Karendi, iii | it is not me who cut you, |
| Ndukandinie nyondon ii | It was Karendi . |
| | Don't cut my breast |

All the girls except Karendi took to their heels. They reported the incident to their mothers and soon an urgent meeting was convened by the elders. The stump had made an agreement with Karendi that it would come at midnight and cut one of her breasts as a compensation for the loss of its blood an it did. For a long time, Karendi kept the secret for fear of the stump coming for her other breast but for how long was she going to keep the suffering secret? How about the bad smell coming from the rotting wound? Karendi could no longer lie to he mother about the bad smell. At the first meeting, the elders had just warned the young girls about the mysterious forest and were happy that Karendi finally arrived home safely. Little did they know that the stump had changed its form that very night and had cut one of Karendi's breasts? It was until after three days when Karendi's mother saw the wound on her daughter's chest. She reported to her father and once again the elders called all the young people. The story of Karendi was repeated in their hearing. There and then, the elders chose strong men and with bows arrows invaded the land of the mysterious creatures. They vowed never to return home until they had avenged for the daughter of the village.

(i)     Identify any TWO onomatopoeic words used in the narrative.          (2mks)

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(ii)    How would you render the line sung by the stump?                    (2mks)

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(iii)   What should one pay attention to as the narrator performs the story.    (2mks)

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(iv)    Which problems is the narrator likely to encounter while performing to a large audience?                                                               (2mks)

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**b) Underline the odd word out in each cluster.**                          (4mks)

**(i)** Chair          chord           chore

(ii) Raise            race            pause

(iii) Gas             germinate       guise

(iv) Pull             pool            book

*c) You have accidentally broken your mother's favourite vase. Write how you would react when she comes home.*                                              *(3mks)*

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*d) Underline the stressed syllables in the following words.*               *(4mks)*

(i) Com.mu.ni.cate

(ii) Edu.ca.tion

(iii) Re.spect

*e) Underline the silent letters in the following words.* (3mks)

(i) Silhauete

(iii) Raspberry

(iv) Sultan

**f) Indicate whether you would end with a falling or rising intonation. (2mks)**

(i) What a tragic experience that was! ..............................................................................

(ii) Will you eat chips or not? ..............................................................................

**g) Study the conversation below between a tout and a passenger:**

Passenger : Excuse me sir, would you mind reducing the volume of the music please?

Tout : (Ignoring her) Hey, anybody who has not paid their fare?

Passenger : Excuse me sir, did you hear me?

Tout : What is it woman? The volume is okay.

Passenger : It's just a request as I am allergic to loud sounds...

Tout : (Interrupting) Then you should hire a taxi or buy your own car.

Passenger : I am sorry if I offended you but you have heard my problem.

Tout : You have also heard my point.

i) Identify three instances of lack of etiquette on the part of the tout. (3mks)

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ii) Identify three instances of etiquette characteristic of the passenger. (3mks)

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NAME: ...........................................................................................INDEX NO: ........................

SCHOOL: ............................................................... STREAM: ...............................................

SIGNATURE: ............................... DATE: ...................

101/2

ENGLISH

Paper 2

(Comprehension, Literary Appreciation & Grammar)

March, 2019

Time: 2½Hrs.

SOARING HIGH

# HAWK -1 JOINT EXAMINATIONS – 2019

Kenya Certificate of Secondary Education. (K.C.S.E)
101/2
ENGLISH
Paper 2
Time: 2½ Hrs

## Instructions to candidates

- Write your Name, Index number, School and Stream in the spaces provided above.
- Sign and write date of examination in the spaces provided.
- Answer all the questions in this paper in the spaces provided.

### FOR EXAMINER'S USE ONLY

| Question | Maximum Score | Candidate's Score |
|----------|---------------|-------------------|
| 1 | 20 | |
| 2 | 25 | |
| 3 | 20 | |
| 4 | 15 | |
| Total | 80 | |

1. **Read the passage below and answer the questions that follow.**

Like a termite destroying a structure, stress undermines the body, mind and emotions and the effect can be obvious on your skin. While dermatologists are still debating whether stress actually causes skin disorders, they seem to agree that stress definitely triggers or aggravates skin conditions such as acne, hives, eczema, psoriasis, warts, cold sore and blisters. Did you know that one of the first places for stress is on your skin? The skin is the largest organ and also the busiest human part with direct and indirect connections to the brain.

Whenever we feel anxious or overwhelmed, our bodies produce cortisol, a major stress hormone is pumped into our system, and it communicates with all our organ and causes inflammation as a reaction to stress. Inflammation produces oxidants that damage the cells.

What does that mean to the skin? When a pore is inflamed, it becomes thick and swollen and is more likely to become clogged. When collagen becomes inflamed, the matrix breaks down and results in acne, wrinkles, dryness and itchiness appear with the inflammation. They are telltale indications of what is really going on inside.

All too often, we try to blame external influences such as eating too much chocolate, dust, even the weather for the state of our skin. But he real cause of the so called "bad skin day" is often emotional.

That's the thing about the skin: you have to deal not only with how you feel, but also with how others react to you. The flip side is that, once your skin starts to mend, people notice immediately and tell you that you look great.
Stress management is possible if you can talk about what is going in one's life with a friend or relative. Binging or eating of junk food too pays off. Exercise raises the level of endorphins thus the mood is raised. A time off the hectic life to relax, a massage, soft music or even meditation is healthy for stress levels to be lowered. Cortisol levels are at their lowest when one sleeps.

**Questions**

a) Why is stress destructive? (3mks)

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b) How does someone look when stressed? (2mks)

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c) Make notes on the process by which stress affects our skin. (4mks)

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d) Apart from stress, what other factors are blamed for the condition of the skin. (2mks)

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e) You have to deal not only with how you feel, but also with how others react to you. (Begin...............Not only...........) (1mk)

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f) How does one know that one has started managing stress? (2mks)

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g) Why is exercise important during stress? (2mks)

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h) Give the meaning of the following words and expressions as used in the passage.
i) Telltale (1mk)

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ii) Bad skin day (1mk)

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iii) Binging (1mk)

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3

iv) Inflammation                                                 (1mk)

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

**Mrs. Linde:** Is Doctor Rank a man of means?

**Nora:**    Yes, he is.

**Mrs. Linde:** And has no one to provide for?

**Nora:**    No, no one; but-

**Mrs. Linde:** And comes here ever day?

**Nora:**    Yes, I told you so.

**Mrs. Linde:** But how can this well-bred man be so tactless?

**Nora:**    I don't understand you at all

**Mrs. Linde:** Don't **prevaricate**, Nora. Do you suppose I don't guess who lent you the two   hundred and Fifty pounds?

**Nora:**    Are you out of your senses? How can you think of such a thing! A friend of ours who comes here every day! Do you realize what **a horribly** painful position that would be?

**Mrs. Linde:** Then it really isn't he?

**Nora:**    No, certainly not. It would never have entered into my head for a moment. Besides, he had no money to lend then; he came into his money afterwards.

**Mrs. Linde:** Well, I think that was lucky for you, my dear Nora.

**Nora:**    No, it would never have come into my head to ask Doctor Rank. Although I am quite sure that if I had asked him-

**Mrs. Linde:** But of course you won't.

**Nora:**    Of course not. I have no reason to think it could possibly be necessary. But I am quite sure that if I told Doctor Rank-

**Mrs. Linde:** Behind your husband's back?

**Nora:**    I must make an end of it with the other one, and that will be behind his back too. I must make an end of it with him.

**Mrs. Linde:** Yes, that is what I told you yesterday, but-

**Nora:**    (Walking up and down) A man can put a thing like that straight much easier that a woman-

**Mrs. Linde:** One's husband, yes.

**Nora:**    Nonsense! (Standing still) When you pay off a debt you get your bond back, don't you?

**Mrs. Linde:** Yes, as a matter of course.

**Nora:**    And can tear it into a hundred thousand pieces, and burn it up- the nasty dirty paper!

4

**Mrs. Linde:** (Looks hard at her, lays down her sewing and gets up slowly) Nora, you are **concealing** something from me

**Nora:** Do I look as if I were?

**Mrs. Linde:** Something has happened to you since yesterday morning. Nora, what is it?

## Questions

1. What happens immediately after this excerpt? (2mks)

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2. Discuss any two issues brought out in this excerpt? (4mks)

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3. Identify the character traits of Mrs. Linde depicted in this extract? (4mks)

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4. In which ways does the playwright use dramatic irony in this excerpt? (4mks)

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5. Because you do as your husband wishes. Add a question tag. (1mk)

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6. How effective is the use of humor in this extract? (2mks)

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7. From this excerpt, Helmer is hardworking. How is this character trait brought out elsewhere in the play and how does it complicate the drama. (4mks)

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8. Give the meaning of the following (4mks)

i)   A man of means ..............................................................................................................

ii)  Prevaricate .................................................................................................................

iii) Horribly .....................................................................................................................

iv)  Concealing .................................................................................................................

3.  **Read the Oral Poem and then answer the questions that follow.**
    **The Beautiful Ones of Esilaba.**

    Solo:  The beautiful ones of Esilaba
           We are few but blessed.

    All:   Oh yes we are few but blessed.

    Solo:  The beautiful ones from the thunder clouds
           We are few but blessed.

    All:   Oh yes we are few but blessed.

    Solo:  From the thunder cloud...

    All:   Thunder clouds...

    Solo:  From the lightning...

    All:   Oh yes we are few but blessed.

    Solo:  From the lightning..

    All:   lightning...

    Solo:  From thunderstorms..

    All:   Yes we are few but blessed.

    <u>Questions</u>

    a)  Classify the song above.                                          (2mks)

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    b)  In which occasion would this song be performed?                  (2mks)

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    c)  Describe two features that make the above genre a song.          (4mks)

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6

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d) Describe the social values of the community from which the song is taken. (6mks)
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e) This song was originally in Banyore language, what do you think was lost when it was translated into English? (2mks)
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f) List two functions of songs. (2mks)
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g) Describe the prevailing mood during the performance of the above song. (2mks)
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4. **GRAMMAR**
   a) **Write the following sentences according to the instructions given after each. (4mks)**
   i) "You will have to kill me first," said the turtle, "and take me out of this shell." (Write in reported speech)
   ....................................................................................................................
   ....................................................................................................................

   ii) To sneak out of school is a punishable offence. (Rewrite changing the infinitive into a gerund)
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   ....................................................................................................................

   iii) The council warned the traders repeatedly but they insisted on hawking in the restricted area. (Use ................. "in spite of" ..........)
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   ....................................................................................................................

   iv) Had it not been for the driver's quick action, the vehicle would have collided with oncoming lorry. (Begin: But for...........)

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**b) Complete the following sentences using the appropriate form of the words in bracket.** (3mks)

i) The peace in the country is .........................................(welcome) to some politicians who thrive in division and hatred.

ii) The perennial nurses' strike needs a --------------------------(last) solution from the county governments.

iii) It is ..........................................(sense) of Ole Kaelo to declare that Oloisudori must not be denied anything in his house.

**c) Fill in the blanks using appropriate prepositions.** (3mks)

i) My sister-in-law deals ........................ second hand clothes.

ii) The policeman held him ......................... the neck as they marched to the station.

iii) Mary and her friend Peter are joined ................the hip.

**d) Replace the words in brackets with an appropriate phrasal verb.** (3mks)

i) The residents were ...................................(surprised) to see their houses being ..........................................(demolished)

ii) We hope that our plans .......................................... (succeed)

**e) Explain the two possible meanings in each of the following sentences.** (2mks)

i) Flying planes can be dangerous.

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

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

ii) "Please do not eat before my wife," the man pleaded with the boss.

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Name: ....................................................................Index Number: ...........................

School: ...................................  Candidate's Signature: ......................................

Date: ..................................................................

101/3
ENGLISH
Paper 3
(Creative Composition and Essay Based on Set Texts)
March, 2019
2 ½ Hours

# HAWK -1 JOINT EXAMINATIONS- 2019
*Kenya Certificate of Secondary Education (K C S E)*

## Instructions to candidates.

a) Answer **three** questions only.
b) Questions **one** and **two** are **compulsory.**
c) In question three choose only one of the optional texts you have prepared on.
d) Each of your essays must not exceed **450** words.
e) Where candidate present more than one optional texts, only the first one to appear will be marked.

## FOR EXAMINER'S USE ONLY

| QUESTION | MAXIMUM SCORE | CANDIDATE'S SCORE |
|---|---|---|
| 1 | 20 | |
| 2 | 20 | |
| 3 | 20 | |
| TOTAL SCORE | 60 | |

1. **IMAGINATIVE COMPOSITION**
   *EITHER*
   a) Write a story ending with the following sentence.
   ..............................................The events of that day will remain printed in
   my mind for ever.
   *OR*
   b) Write a composition to illustrate the saying:
   A tree is known by its fruits.

2. **COMPULSORY SET TEXT**
   H.R Ole Kulet, Blossoms of the Savannah
   "Bad decision can adversely affect our lives and those around us"
   Write an essay in support of this statement drawing illustrations from the novel,
   Blossoms of the Savannah

3. **OPTIONAL SET TEXTS**
   *EITHER*
   a) Moran Publishers (Ed), Memories We Lost and Other stories.
   "Death is traumatizing! Closely referring to Okwiri Oduor's *My Father's Head*,
   validate this statement.

   **OR**

   b) Drama: David Mulwa, Inheritance
   "Depriving people of their dignity has far-reaching consequences" Using David
   Mulwa's *Inheritance* for your illustration, write an essay in support of this statement

   **OR**

   c) The Novella: John Steinbeck's The Pearl.
   "The arrival of the pearl spelt doom than fortune." With illustrations from John
   Steinbeck's *The Pearl*, *justify this statement.*
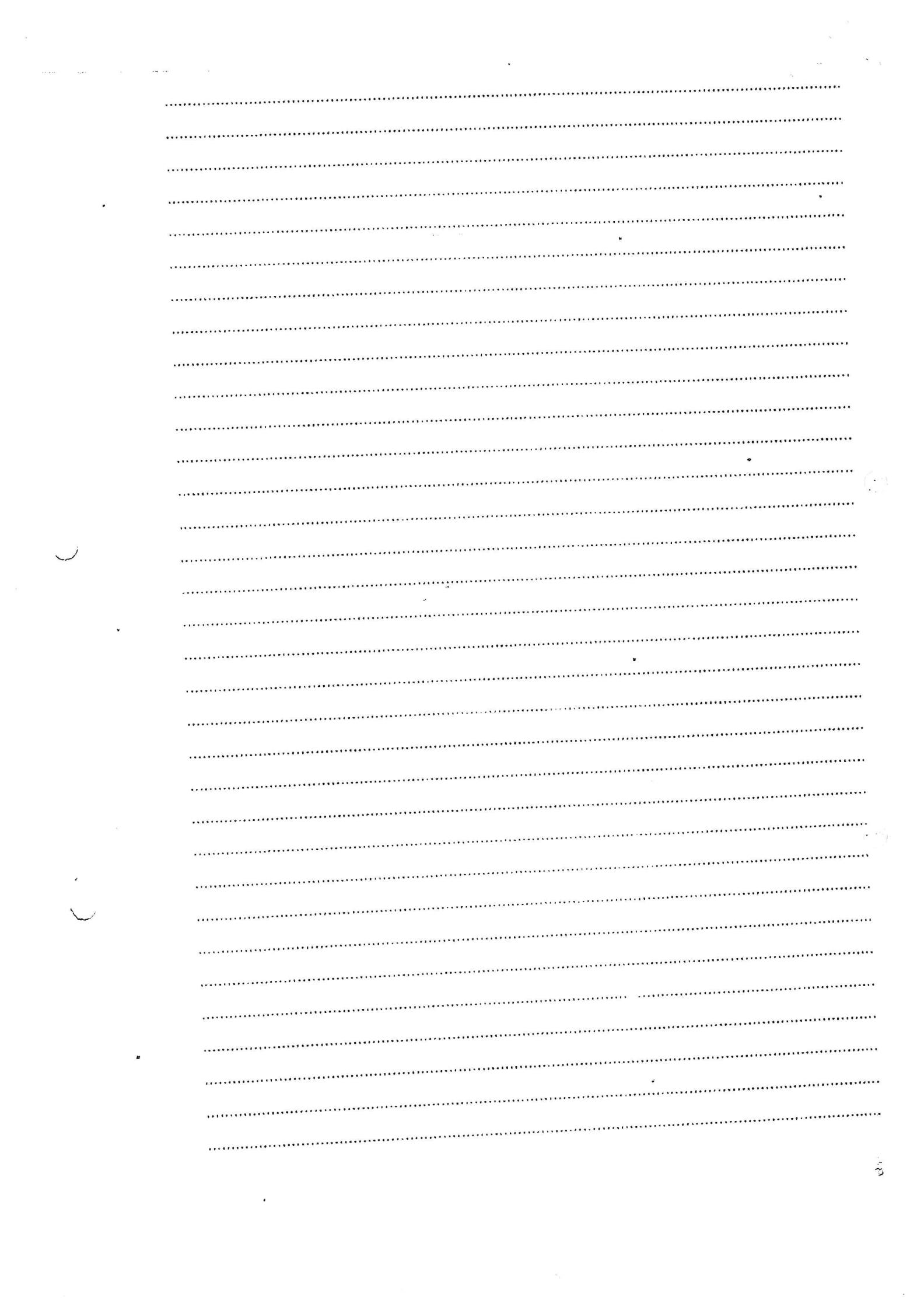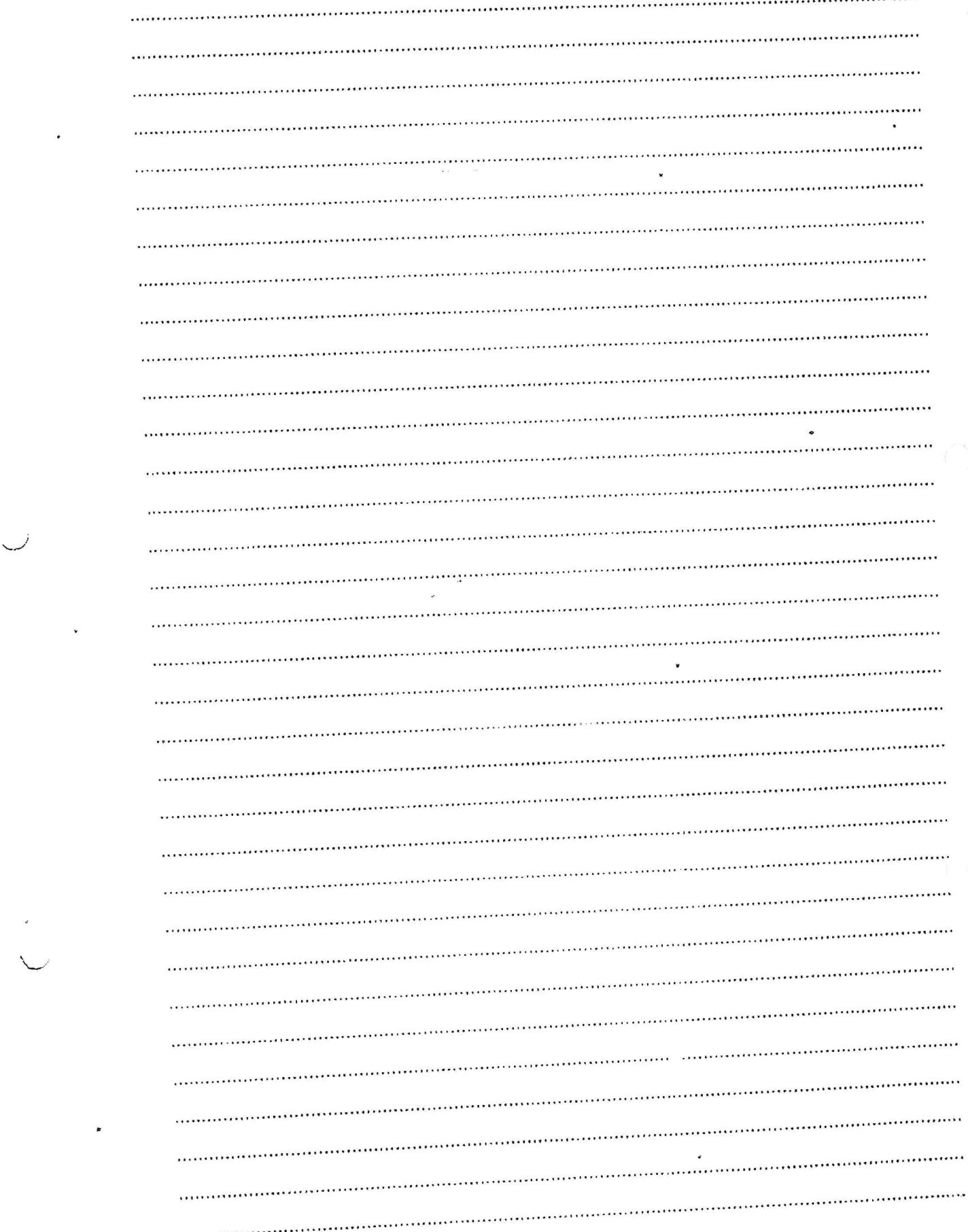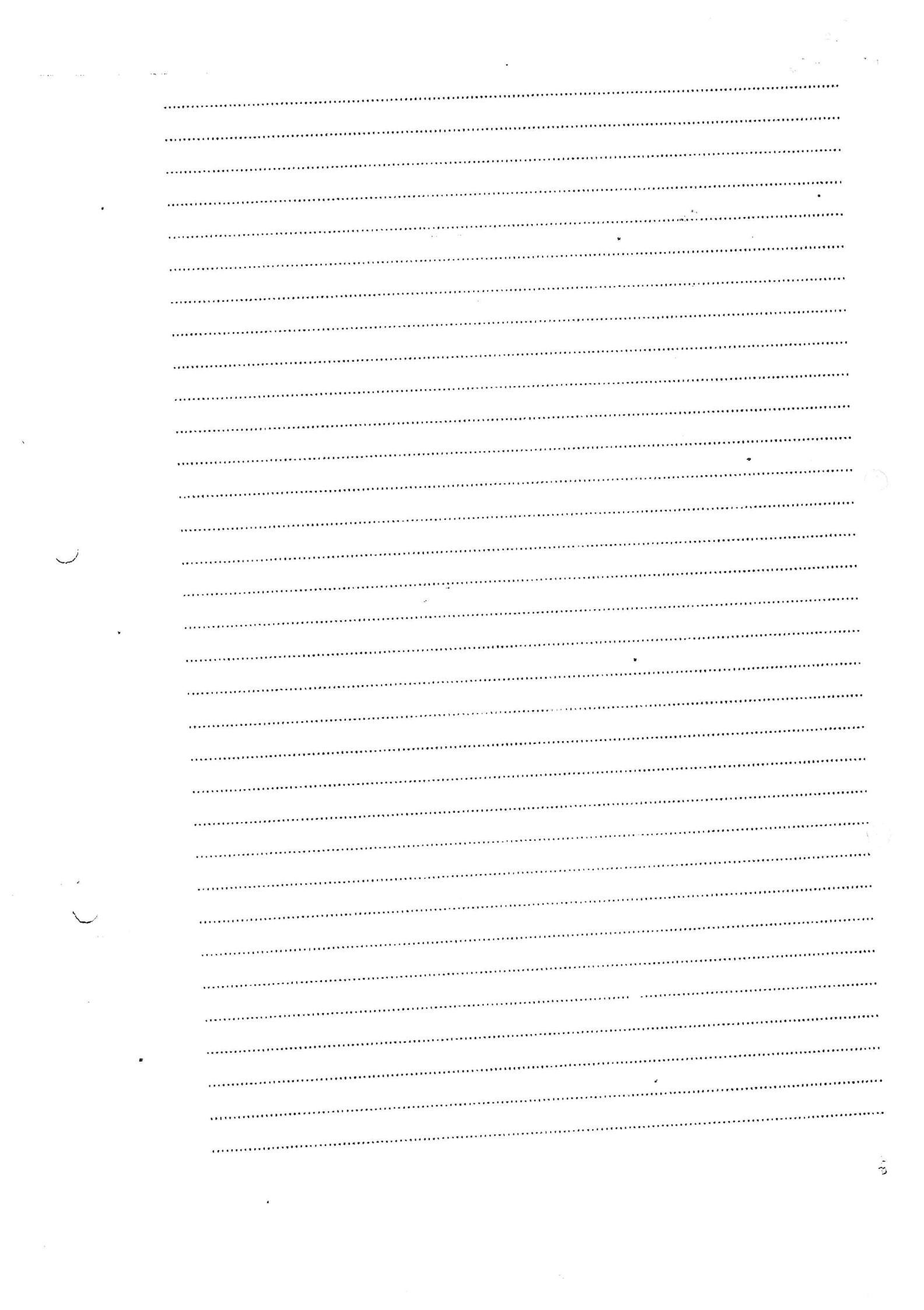
**102/1**
**KISWAHILI**
**KARATASI YA 1**
**INSHA**

## MTIHANI WA PAMOJA WA HAWK 1 2019
## HATI YA KUHITIMU MASOMO YA SEKONDARI NCHINI KENYA

JINA: .............................................. NAMBARI YA MTAHINIWA ..............
NAMBARI YA USAJILI: ...................... SHULE: ...........................................
MKONDO: ............................... TAREHE: ...........................................

### MAAGIZO
a) Andika Insha mbili. Insha ya kwanza ni ya lazima.
b) Chagua insha nyingine moja kati ya hizo tatu zilizobaki.
c) Kila Insha isipungue maneno 400.
d) Kila insha ina alama 20.
e) Andika kwa lugha ya Kiswahili.

## KWA MATUMIZI YA MTAHINI PEKEE

| SWALI | UPEO | ALAMA |
|-------|------|-------|
| 1 | 20 | |
| 2 | 20 | |
| JUMLA | | |

1

1. Kamati ya uajiri ya kaunti yako imekualika kwa mahojiano ya afisa msimamizi wa kukabiliana na janga la mafuriko. Andika tawasifu utakayoiwasilisha kwa kamati hiyo.

2. Andika insha kuhusu jinsi serikali na jamii inavyochangia kuondoa umaskini nchini.

3. Toa kisa ambacho kitadhihirisha ukweli wa methali hii:

   Mchuma janga hula na wakwao.

4. Andika insha itakayomalizika kwa:

   ....Laiti angechunga asipumbazwe na mabadiliko hayo ya dunia.
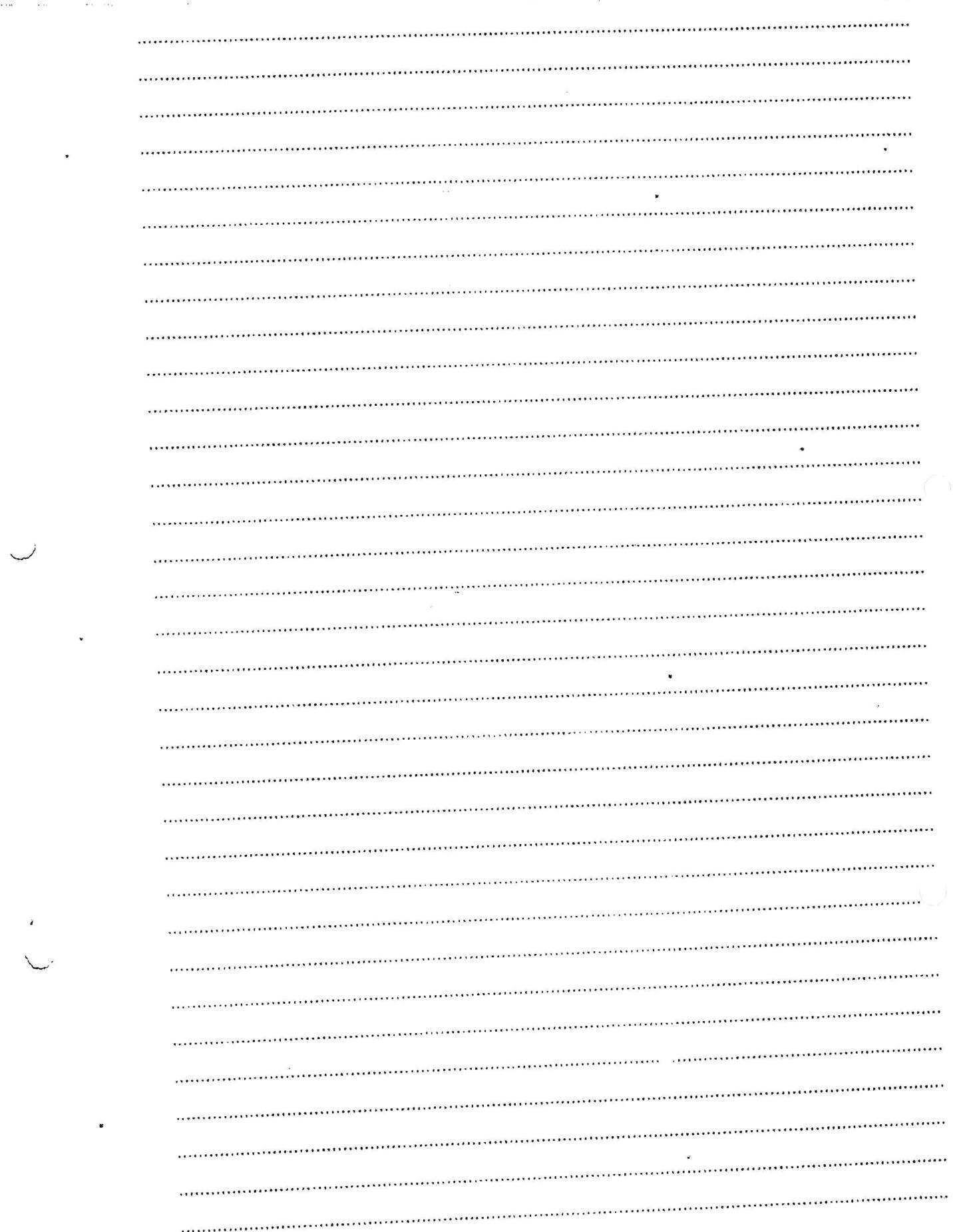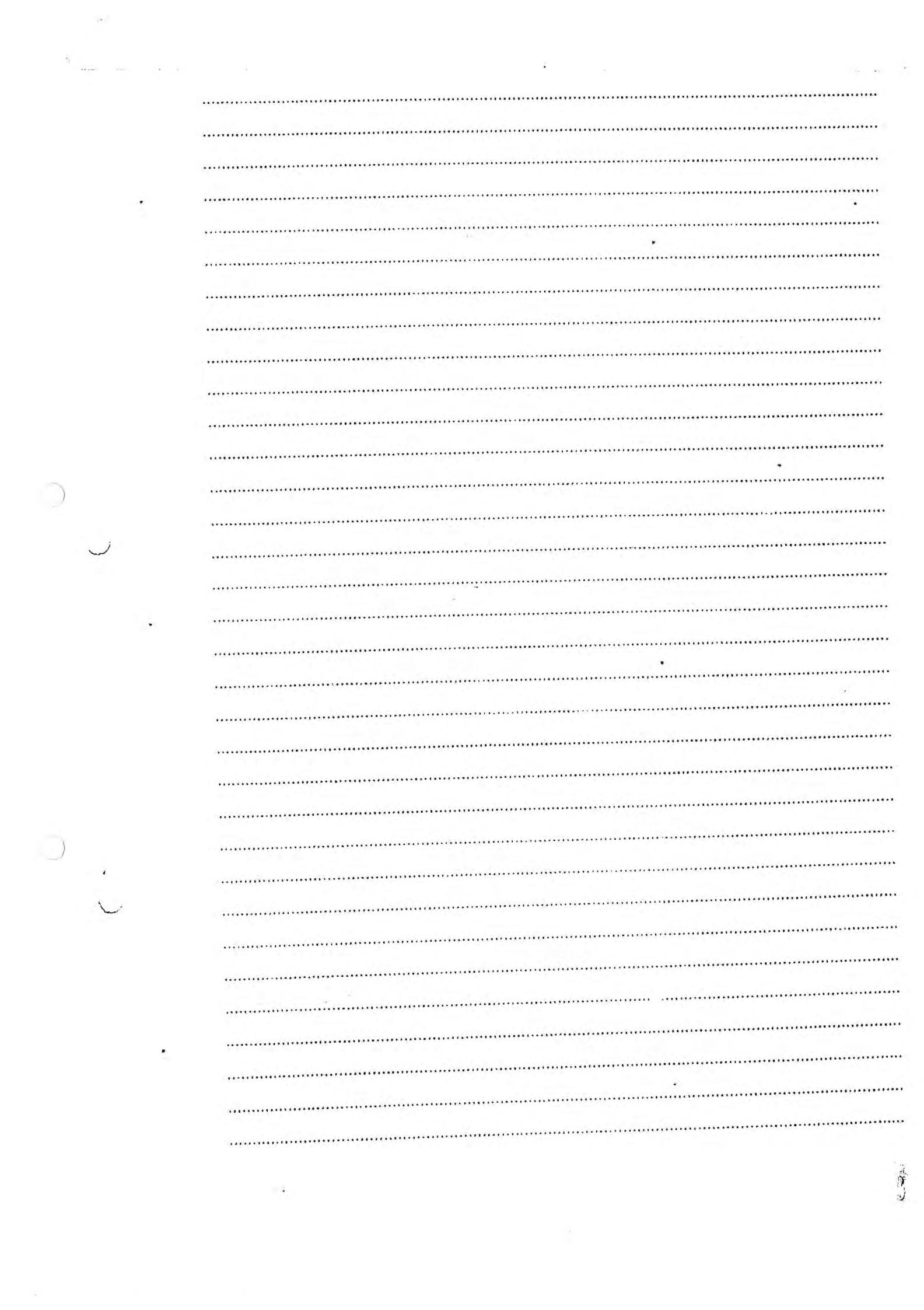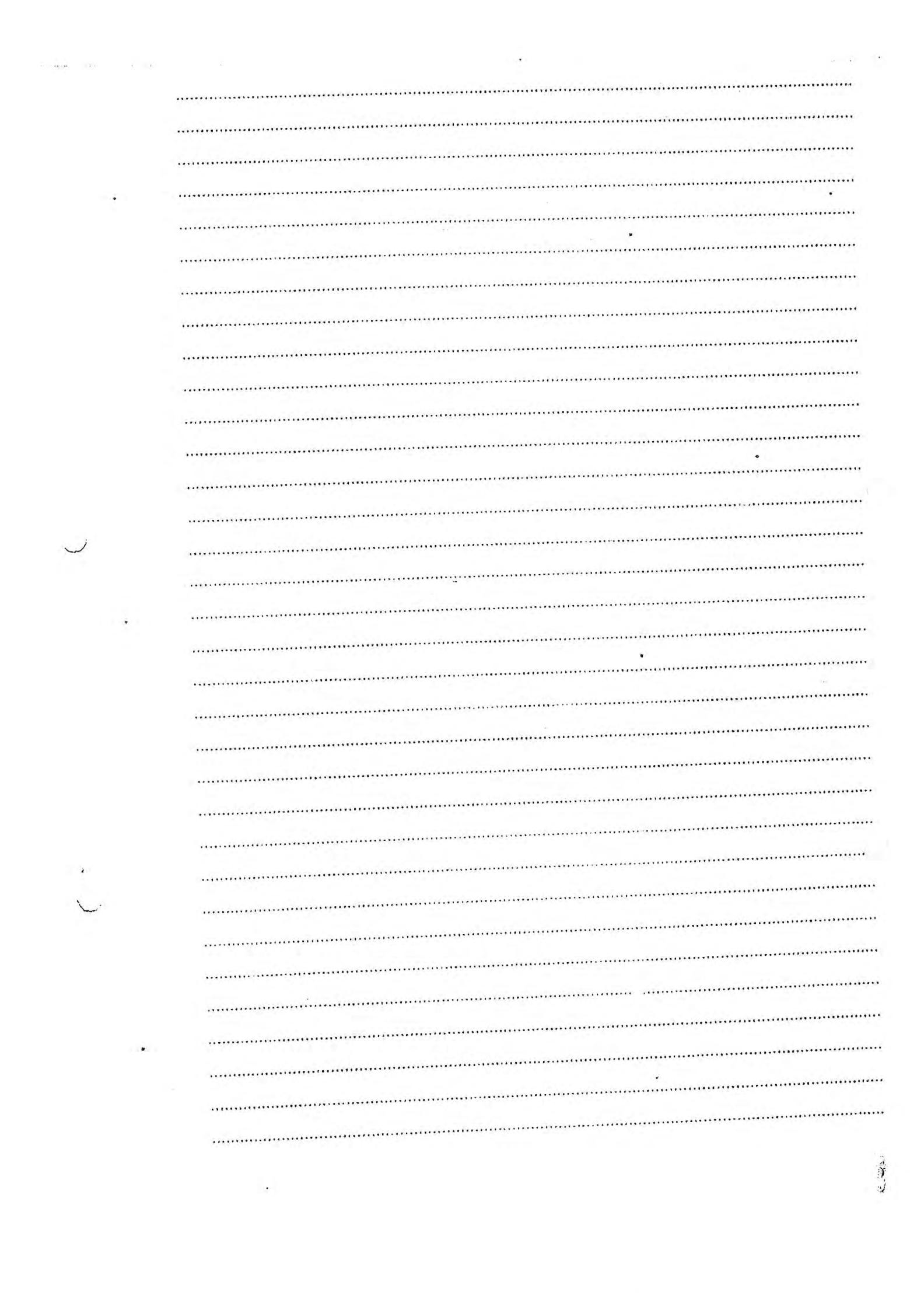
## MTIHANI WA PAMOJA WA HAWK 1 2019
## HATI YA KUHITIMU MASOMO YA SEKONDARI NCHINI KENYA

JINA: ................................................ NAMBARI YA MTAHINIWA ...............

NAMBARI YA USAJILI: ....................... SHULE: ...........................................

MKONDO: ............................... TAREHE: ......................................

### MAAGIZO

1. Andika jina lako, shule, mkondo wa darasa na nambari ya usajili katika nafasaiulizoachiwa hapo juu.
2. Tia sahihi yako kisha uandike tyarehe ya mtihani katika nafasi ulizoachiwa hapo juu.
3. Jibu maswali yote.
4. Majibu yote yaandikwe katika nafasi ulizoachiwa katika kitabu hiki cha maswali.
5. Majibu **lazima** yaandikwe kwa lugha ya Kiswahili.
6. **Karatasi hii ina ina kurasa 10 zilizopigwa chapa.**
7. **Watahiniwa ni lazima wakikishe kwamba kurasa zote za karatasi hii zimepigwa chapa sawasawa na kuwa maswali yote yamo.**

### KWA MATUMIZI YUA MTAHINI PEKEE

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

# 1. UFAHAMU (ALAMA 15)

*Soma kifungu kifuatacho kisha ujibu maswali yanayofuata.*

Kweli, taarifa zimeonekana katika vyombo vya habari kuwa vijana wetu wanajua mengi kutushinda. Wengi wameshiriki ngono ilhali tukiwa nyumbani sisi wazazi tunawaona kuwa malaika.

Kwa kweli taarifa hizo ni sawa na mbiu ya mgambo kuwa tuzungumze na watoto wetu kuhusu suala hili. Ni vyema wajue kutoka kwetu kuliko kufahamu kutoka kwa wengine ambao badala ya kuwaelekeza wanawapotosha. Mara nyingi katikati ya marika, wao hushinikizana kujaribu na wengi wanaamini kuwa kufanya mara moja si tatizo. Lakini kile ambacho hawaelewi ni kuwa hiyo mara moja inaweza kuwabebesha mimba ama kuwaambukiza ukimwi na maradhi mengine ya zinaa. Aidha, utu huumbuliwa na hivyo kupotoka kimaadili. Hayo ni masuala ambayo wazazi hawafai kuyaonea haya tena kwa sababu watoto wetu wanayafahamu lakini cha msingi ni kujua ukweli na hatari zilizopo.

Wazazi wengi wamewatelekeza watoto wao. Wengi husema kuwa wanawatimizia kila hitaji. Hii inamaanisha kuwa unalipa karo kwa wakati unaofaa, kuna chakula cha kutosha nyumbani, mavazi wako nayo na pia pesa za mfukoni wanazo. Lakini kila ambacho hawana ni muda wa kuwa na watoto wao. Baadhi ya matatizo tunayokumbana nayo yanaweza kutatuliwa ikiwa wazazi watatenga muda wa kuzungumza ana kwa ana na watoto wao.

Ni kweli wengi wamesingizia kazi zao kwa sababu wanaamka mapema na kurudi usiku. Je, hiyo kazi ina maana gani ikiwa kesho utajipata na mjukuu wa kulea bila kutarajia? Kwa hivyo, wazazi lazima waache kuwaachia wafanyakazi wa nyumbani jukumu lao ama kuwapeleka katika shule za bweni mapema kwa sababu wanawaona kuwa mzigo. Pia kuna wale ambao huachwa hata vilabuni kwa madai kuwa wanakutana tu na marafiki zao.

Baadhi ya mavazi, ingawaje huwafanya watoto wao kuonekana kama wanaoenda na wakati ama ya kisasa, huwa hayafai. Lazima wafunzwe tangu wakiwa wachanga kuhusu suala la kujiheshimu. Haifai kufikiria kwamba kwa sababu ni mtoto anaweza kuvaa chochote kile. Mtoto anafaa kuvishwa mavazi ya heshima. Aidha, wazazi wachunguze mavazi yao wenyewe.

## Maswali

a. Eleza dhamira kuu ya mwandishi wa makala haya.  (alama 1)

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b. Kushiriki ngono mapema kwa vijana kuna athari gani kulingana na makala haya?  (alama 3)

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c. Eleza jinsi tatu ambavyo wazazi wamechangia matatizo yanayowakumba vijana chipukizi. (alama 3)

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d. Taja majukumu manne makuu ya mzazi kulingana na makala haya . (alama 4)

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e. Eleza mchango wa wazazi kutatua tatizo la mavazi duni kwa wanao (alama 2)

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f. Eleza maana ya:
  (i)    Madai (alama 1)

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  (ii)   Mbiu ya mgambo (alama 1

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## 2. UFUPISHO

**Soma makala yafuatayo kisha ujibu maswali.**

Ukeketaji ni mfumo wa upasuaji unaofanyiwa wanawake na wasichana sehemu nyingiduniani, Istilahi hii ya ukeketaji ina maana pana kwani inaweza kutumiwa kueleza upashajio tohara kwa wasichana kwa wasichana na ukataji wa sehemu za siri kwa wanawake.

Ukeketaji haupatikani tu katika bara la Afrika bali katika sehemu nyingi ulimwenguni. Umri ambapo ukeketaji hufanyika hutegemea jamii inayohusika. Mwanamke anaweza kufanyiwa ukeketaji siku chache baada ya kuzaliwa au baada ya kujifungua mtoto wake wa kwanza.

Miongoni mwa jamii ambazo hupasha tohara wanawake, huthamini sana amali hii kwani kwao ni hatua muhimu ya mpito wa maisha katika jamii za jadi mwanamke hupitishwa kutoka rika moja hadi jingine, yaani kutoka utotoni na kuingia kwenye utu uzima.

Ukeketaji unafungamana na sherehe hiyo ya kuwapa wasichana mafunzo kuhusu kanuni za uzazi, malezi na ndoa. Dhima kuu ya sherehe hiyo ya kuwapasha wasichana tohara inadaiwa ya kwamba ni kwamba ni kuwapunguzia wanawake uchu na kuhifadhi ubikira. Jamii nyingine hutekeleza tohara kwa sababu za kidini zinazishikilia kuwa mwanamke aliyetahiriwa huwa nadhifu. W engine wanaamini kuwa tohara huwafanya watoto wanapozaliwa kuwa na nafasi nzuri ya kuishi , ilhali wengine hupashwa tohara ili wapate waume wa kuwaoa. Kwenye jamii ambazo wanaume wanasisitiza tohara kama kigezo cha mwanamke kuolewa ukeketaji umeshamiri. Katika jamii hizi wanaume huwa hawataki kuoa wanawake ambao hawajatahiriwa.

Wanawake wenyewe huhakikisha ya kwamba watoto au wajukuu wao wanapelekwa kupashwa tohara. Wakati mwingine mipango ya siri hupagwa na kina hao pamoja na mangariba, kuhakikisha hili linatekelezwa. Kwa hivyo jambo hili la ukeketaji lina utata miongoni mwa jamii nyingi ulimwenguni.

Hata hivyo ukweli ni kwamba swala zima hili la ukeketaji lina madhara makubwa na lina mdhalilisha mwanamke. Katika hali ya upashaji tohara wanawake huvuja damu nyingi na aghalabu huaga dunia. Wale wanaopona huwa kwenye hatari ya kuambukizwa maradhi ya zinaa ambayo huharibu sehemu za uzazi. Kwani madaktari wanadai uchungu wa uzazi huiwa mwingi na hudumu muda mrefu.

Kwa sababu tohara hufanywa mara moja kwa mwaka, wasichana wote wa rika moja hukusanyaka mahali maalum ili kufanyiwa tohara. Kifaa ambacho hutumiwa sana ni wembe. Wembe huo hutumiwa kukatia wasichana wote ambao wanapashwa tohara katika kipindihicho. Wembe huo huchemshwa angalau kuua viini viinavyosababisha na kueneza magonjwa mbali mbali. Hali hii huweka wasichana hao kwenye hatari ya kuambukizwa ugonjwa hatari wa ukimwi. Licha ya hivyo, wasichana waliotahiriwa nguvu za kinga dhidi ya magonjwa hupungua.

Kwa hivyo wanaweza kupata magonjwa mengine ya kuambukiza kwa urahisi. Kwa hivyo ukeketaji ni tendo la hatari na la kumdhalilisha mwanadamu ambalo linastahili kulaaniwa.

## Maswali

a) Ukizingatia mambo muhimu anayoeleza mwandishi, fupisha aya tatu za kwanza (Maneno 70) (alama 9,1 ya utiririko)

**MATAYARISHO**

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**JIBU**

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b) Eleza mambo anayoeleza mwandishi katika aya mbili za mwisho (maneno 50) (alama 6,1 ya utiririko)

**MATAYARISHO**

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**JIBU**

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## 3. MATUMIZI YA LUGHA (ALAMA 40)

a) Ainisha kila kitamkwa kwa kuzingatia kigezo kilicho ndani ya mabano.　　　　(al. 2)

i. /i/ (mwinuko wa ulimi)

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_____

ii./sh/ ( Jinsi ya kutamka)

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_____

iii. /l/ (hali ya glota)

_____

_____

iv. /ny/ (Mahali pa kutamkia)

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_____

b) Ainisha mofimu katika fungutenzi lifuatalo.　　　　(al.3)

Singempitia

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_____

c) Tambua vitenzi vilivyopigiwa mistari.　　　　(al. 2)

Mama alikuwa akisoma.

_____

_____

Mama alikuwa mgonjwa.

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_____

7

d) Andika sentensi zifuatazo upya kulingana na maagizo. (al.2)

i. Chake kilipatikana nchini.

(Badilisha kiwakilishi kimilikishi kuwa kiwakilishi kiashiria).

_____

_____

ii. Jengo hili lilifadhiliwa na benki ya dunia . (Tumia neno lililopigwa msitari kama nomino kuandika sentensi upya.

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e) Bainisha virai vilivyopigiwa mstari katika sentensi hizi. (al.2)

i. Hawa wetu wabaya sana si kama waungwana wao.

ii. Mwangeka hakupenda kufanya mchezo **wa aina hiyo.**

f) Andika umoja wa sentensi hii katika ukubwa . (AL. 2)
   Wake wa wazee hawa hupenda kupanda miti milimani.

_____

g) Yakinisha sentensi ifuatayo. (al. 1)

Jumla hakunywa pombe wala kuvuta sigara jana.

_____

_____

h) Bainisha vishazi katika sentensi ifuatayo. (al.2)

Kwa kuwa mmefika tunaweza kuanza mkutano

_____

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i) Andika katika usemi wa taarifa. (al. 3)

"Mito yetu imechafuka sana; itabidi tuungane mikono wakubwa kwa wadogo, wanaume kwa wanawake ili tuisafishe." Mwanamazingira alituhimiza.

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j) Chorea mistari na ubainishe yambwa na chagizo katika sentensi ifuatayo . (al.3)

Kale alimnunulia mjukuu wake mkunga wa ndizi sokoni jana jioni

k) Changanua sentensi ifuatayo kwa kutumia matawi. (al. 1)

Hasani alisafiri jana usiku lakini hakuenda kwao

l) Tunga sentensi moja yenye muundo ufuatao . (al. 2)

KN (N + V) + KT(T+T)

_____

_____

m) Andika sentensi hii upya ukianzia neno lililokolezwa. (al. 2)

Kilonyo aliwafanya mifugo wa Kambon Kunywa maji (Usitumie aliwafanya)

_____

_____

n) Kwa kuzingatia dhamira,tambua aina za sentensi zifuatazo. (al. 2)

Wahuni hawawezi kuasi ukapera.

Ameniuzia matunda haya kwa shilingi tano tano.

_____

_____

_____

o) Tumia neno 'kucheza' kutunga sentensi kama:

i. Kitenzi

_____

_____

_____

ii. Nomino

_____

_____

_____

p) Eleza maana ya sentensi zifuatazo kutegemea maneno yaliyopigiwa mistari. (al.2)

i. Tajiri mwenye amebeba mzigo.

_____

_____

ii. Tajiri mwenye mzigo ameubeba.

_____

_____

q) Tumia kiambishi –ni- katika sentensi kuonyesha hali (amri ) (al. 1)

_____

_____

(al.1)

r) Tunga sentensi ukitumia neno – 'minghairi ya'

_____

_____

(al. 2)

s) Tunga sentensi moja kutofautisha maana ya maneno dhamini / thamini.

_____

_____

## 4. ISIMU JAMII (ALAMA 10)

### Soma makala yafuatayo kisha ujibu maswali .

Niaje wasee! Ma-holiday ndizo hizo tena. Najua ma-mission ni mingi! Lakini jo! Mambo imebadilika! Nik kubaya maze. Usifikirie kila kitu unaona ni reality, ukadhani ni gold. Hiyo real life maze! Round hii maze ni "ku-chill!" Usipige ma-stunts zingine zitakuacha uki-regret later! Ni POA KU-CHILL au aje maze?

(al.1)

a) Bainisha sajili ya kifungu hiki.

_____

(al. 5)

b) Eleza sababu tano zinazochangia kuzuka kwa sajili hii katika (a)

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(al. 4)

c) Bainisha changamoto zozote nne zinazoikabili lugha ya Kiswahili kama somo katika shule za upili nchini Kenya.

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SOARING HIGH

**102/2**

**KISWAHILI**

**KARATASI YA 3**

**INSHA**

## MTIHANI WA PAMOJA WA HAWK 1 2019
## HATI YA KUHITIMU MASOMO YA SEKONDARI NCHINI KENYA

JINA: ................................................  NAMBARI YA MTAHINIWA ...............

NAMBARI YA USAJILI: .......................  SHULE: ...........................................

MKONDO: ...............................  TAREHE: ...........................................

### MAAGIZO

1. Andika jina lako, shule, mkondo wa darasa na nambari ya usajili katika nafasaiulizoachiwa hapo juu.
2. Tia sahihi yako kisha uandike tyarehe ya mtihani katika nafasi ulizoachiwa hapo juu.
3. Jibu maswali yote.
4. Majibu yote yaandikwe katika nafasi ulizoachiwa katika kitabu hiki cha maswali.
5. Majibu **lazima** yaandikwe kwa lugha ya Kiswahili.

## A: SWALI LA LAZIMA

1. Ni bayana kwamba viongozi wengi katika nchi zinazoendelea wamejawa na tama na ubinafsi. Thibitisha kauli hii ukirejelea tamthilia yua kigogo. (al. 20)

## SEHEMU B: RIWAYA

2. " Acha nitambe na ulimwengu, huenda nikaambulia cha kukusaidia kukimu familia." (al.4)
   a) Weka dondoo hili katika muktadha wake. (al.4)
   b) Eleza sifa zozote nne za msemaji. (al.2)
   c) Anayesemewa aliathirika vipi na ujumbe huu?
   d) Kwa kutolea mifano mitano mwafaka, eleza namna wahusika mbalimbali walivyotamba na ulimwengu katika riwaya nzima. (al.10)

## AU

3. Anwani "Chozi la Heri" inaafiki riwaya yake Asumpta k. Matei. Fafanua. (Al. 20)

## SEHEMU C: TUMBO LISILOSHIBA NA HADITHI NYINGINE

4. Kwa kuwa vimekuwa
   Dhahiri machoni pangu
   Maji ya shingo yamenifika.........

   a) Eleza muktadha wa dondoo. (al.4)
   b) Tambua mbinu za lugha zilizotumika. (al.2)
   c) Eleza jinsi maji ya shingo yalivyomfika mhusika mkuu katika hadithi. (al.14)

## AU

5. Walalahai ndio chanzo cha matatizo yanayowakumba walalahoi. Jadili kwa kurejelea hadithi zifuatazo. (al. 20)
   i. Tumbo lisiloshiba

   ii. Shibe inatumaliza

## SEHEMU D: USHAIRI

6. Soma shairi lifutalo kisha ujibu maswali yanayofuata.

## VITA VYA NDIMI

Huyo! Amshika huyo!
Hakuna bunduki wala kifaru
Bomu na risasi hata hawazijui!

Lakini mno wanashambuliana.
Kwa ndimi zilizonolewa kwa makali
Vipande vya matusi silaha zao.

Yu imara mmoja wao.
Akirusha kombora la neno zito!
Limtingishe adui wake
Na kumgusa hisia kwa pigo kuu.
Pigo linalopenya moyoni kama
Kichomi.
Kuchipuza joto la hasira na kisasi.
Kati mapigano yaso na kikomo

Filimbi ya suluhu inapulizwa
Kuwaamua!
Ni nani anayekubali suluhu?
Roho zinakataa katakata
Huku ukaidi ukinyemelea na kutawala
Kote
Mapandikizi ya watu yakipigana
Vitu shadidi visivyo ukomo
Vita vya ndimi!

Magharibi sasa
Jua linapungia mkono machweo
Nalo giza likinyemelea kwa kiburi na
Kasi
Sisikii tena sauti za misonyo
Mate ya watesi yamekauka

Makanwa yao yamelemewa na
Uchovu
Sasa wameshikana mikono
Nyuso zao zikitabasamu
Ishara ya suluhu!

<u>Maswali</u>

a) Hili ni shairi la aina gani? Thibitisha. (al.2)

b) Eleza sifa za utunzi alizotumia mshairi. (al.4)

c) Taja kwa kutolea mifano tamathali za usemi zozote tatu zilizotumiwa katika shairi hili. (al.3)

d) Fafanua mishororo hii. (al. 4)

   i.     Akirudisha kombora la neno zito!

   ii.    Makanwa yao yamelemewa na uchovu

e) Taja matumizi yoyote ya mishata. (al.2)

f) Zungumzia mgogoro katika shairi na namna unavyomalizika. (al.5)

g) Toa maana ya msamiati huu. (al.2)

   i.     Kichomi

   ii.    Misonyo


# <u>SEHEMU E: FASIHI SIMULIZI</u>

7.  i. Eleza maana ya maigizo. (al. 2)

   ii. Eleza sifa nne za maigizo. (al.4)

   iii.    Eleza umuhimu wa maigizo. (al.4)

   iv.    Eleza vigezo vinne vya kuainisha methali. (al.4)

   v.    Kwa kutolea mifano eleza fani tatu katika vitendawili. (al.6)

## <u>AU</u>

8.  "Mjukuu wangu, masomo ni jambo muhimu sana. Ufikapo shuleni na kuanza maisha ya shule ya upili, usijiingize katika mambo ya dunia, anasa na raha nyingi. Vifanye vitabu rafiki wa karibu na uwasikize walimu wako."

   i.   Tambua kipera cha fasihi simulizi kinachohusishwa na kifungu hiki.

   ii. Eleza umuhimu wa kipera hiki katika maisha ya jamii. (al.5)

   iii.    Taja sifa zozote nne za kipera hiki. (al.4)

   iv.    Eleza vizingiti vinavyokumba fasihi simulizi katika jkamii ya kisasa. (al.10)
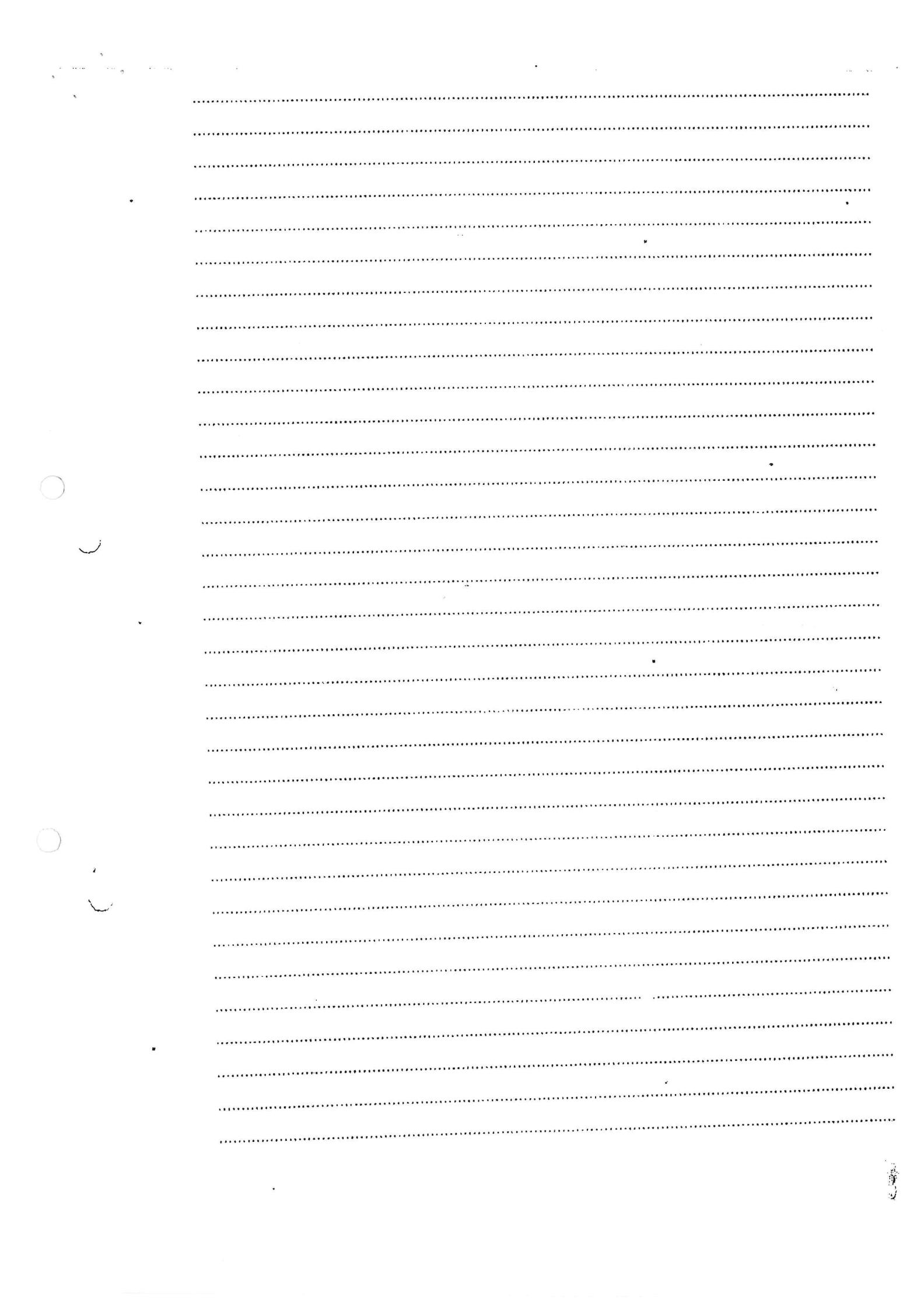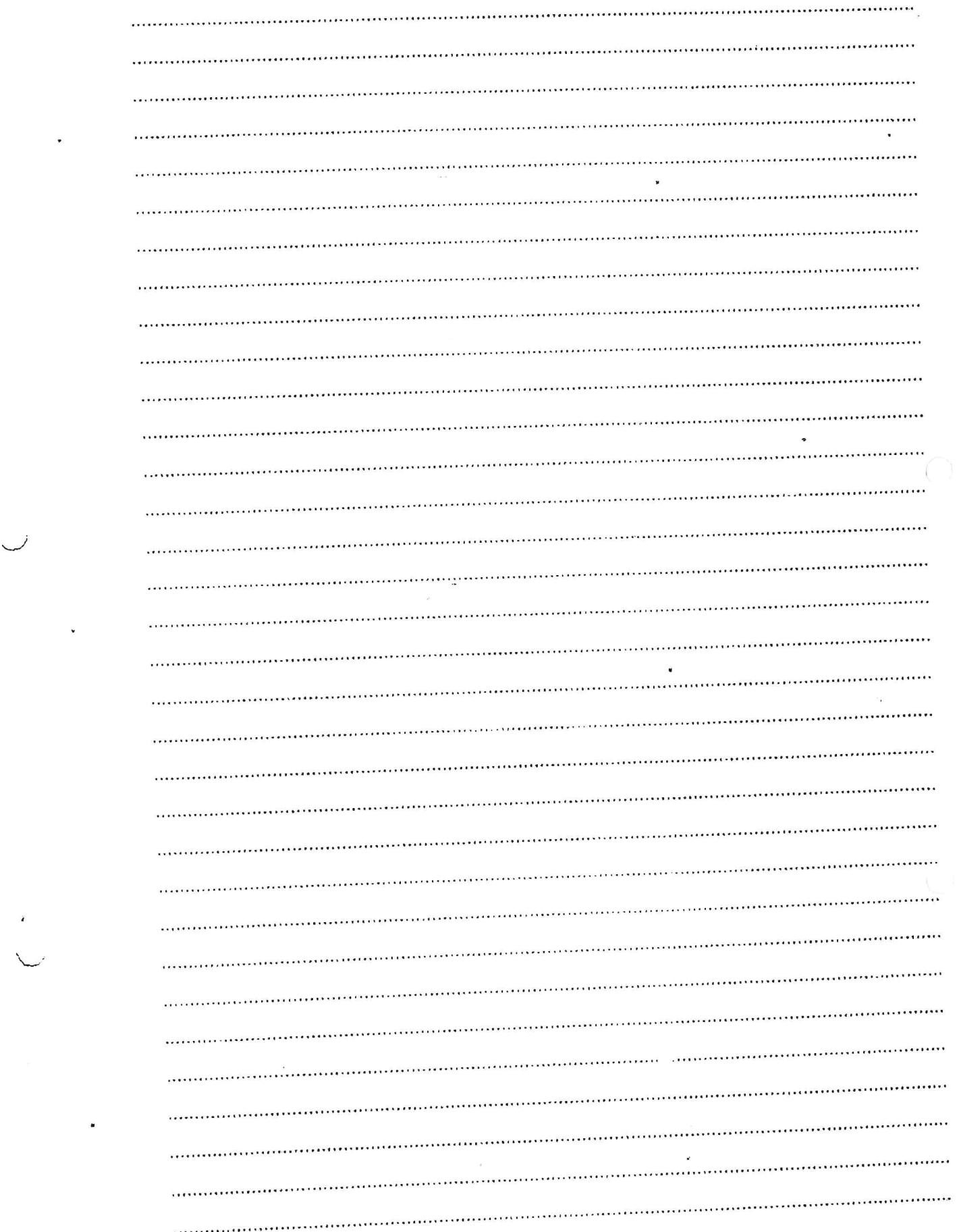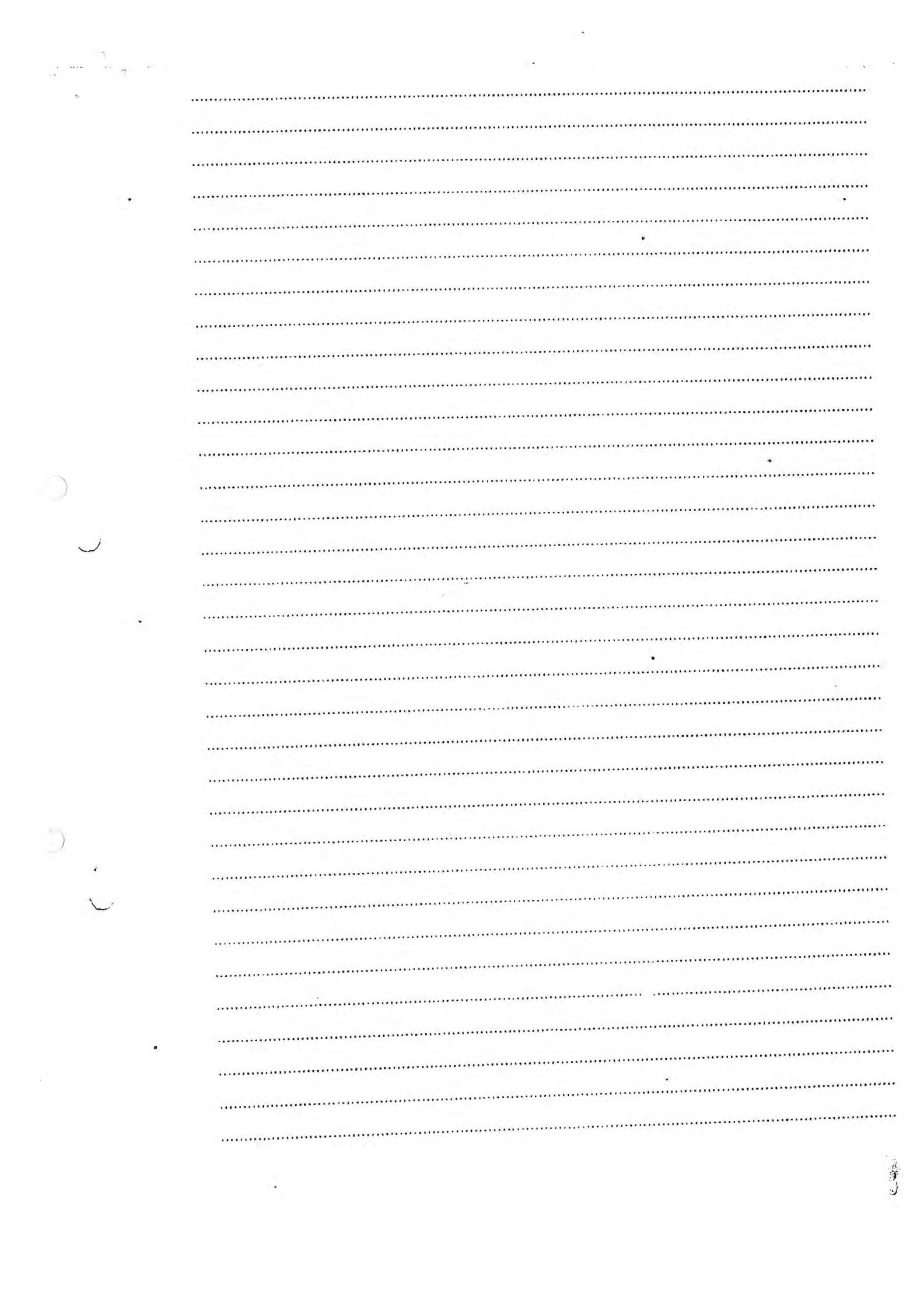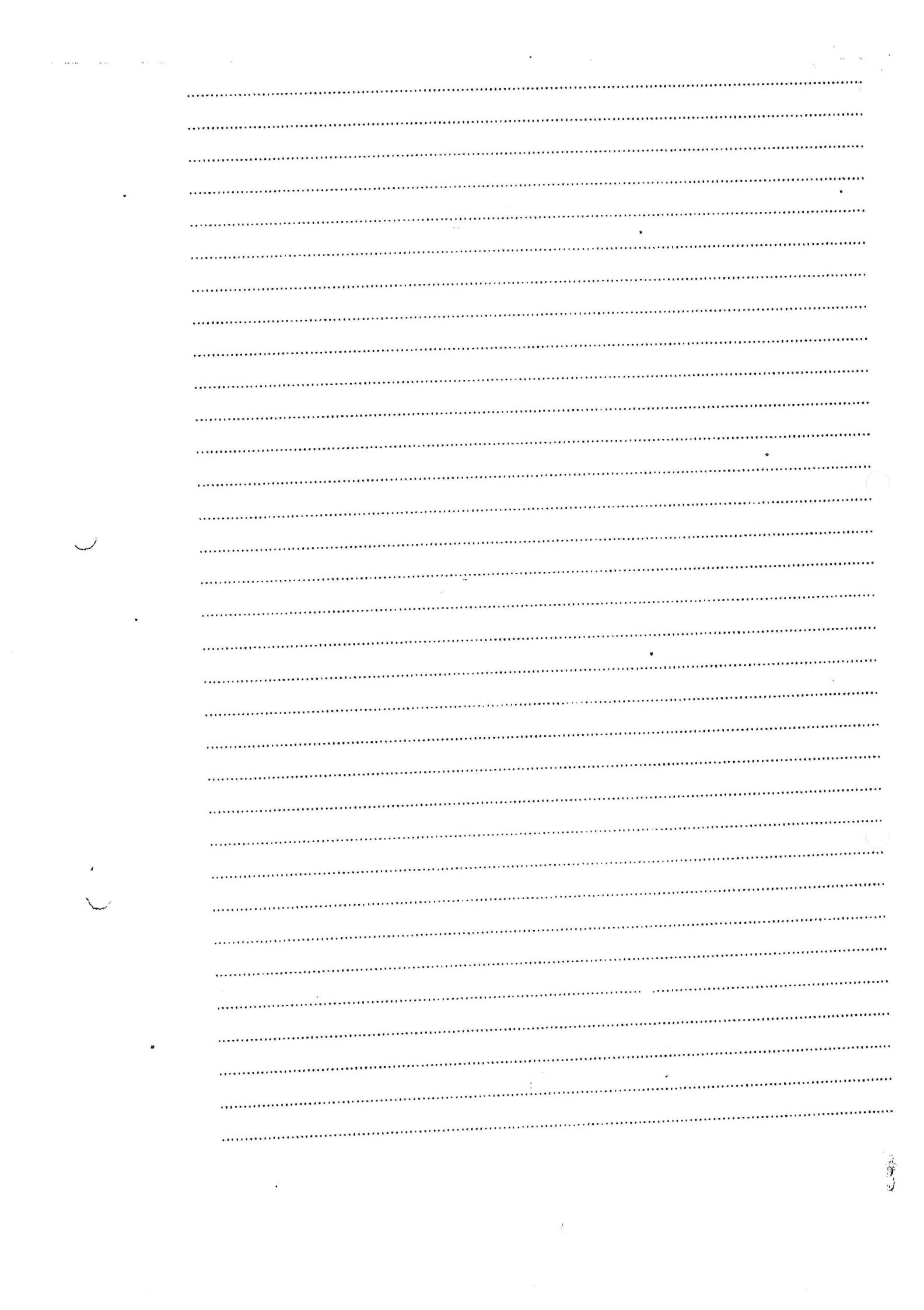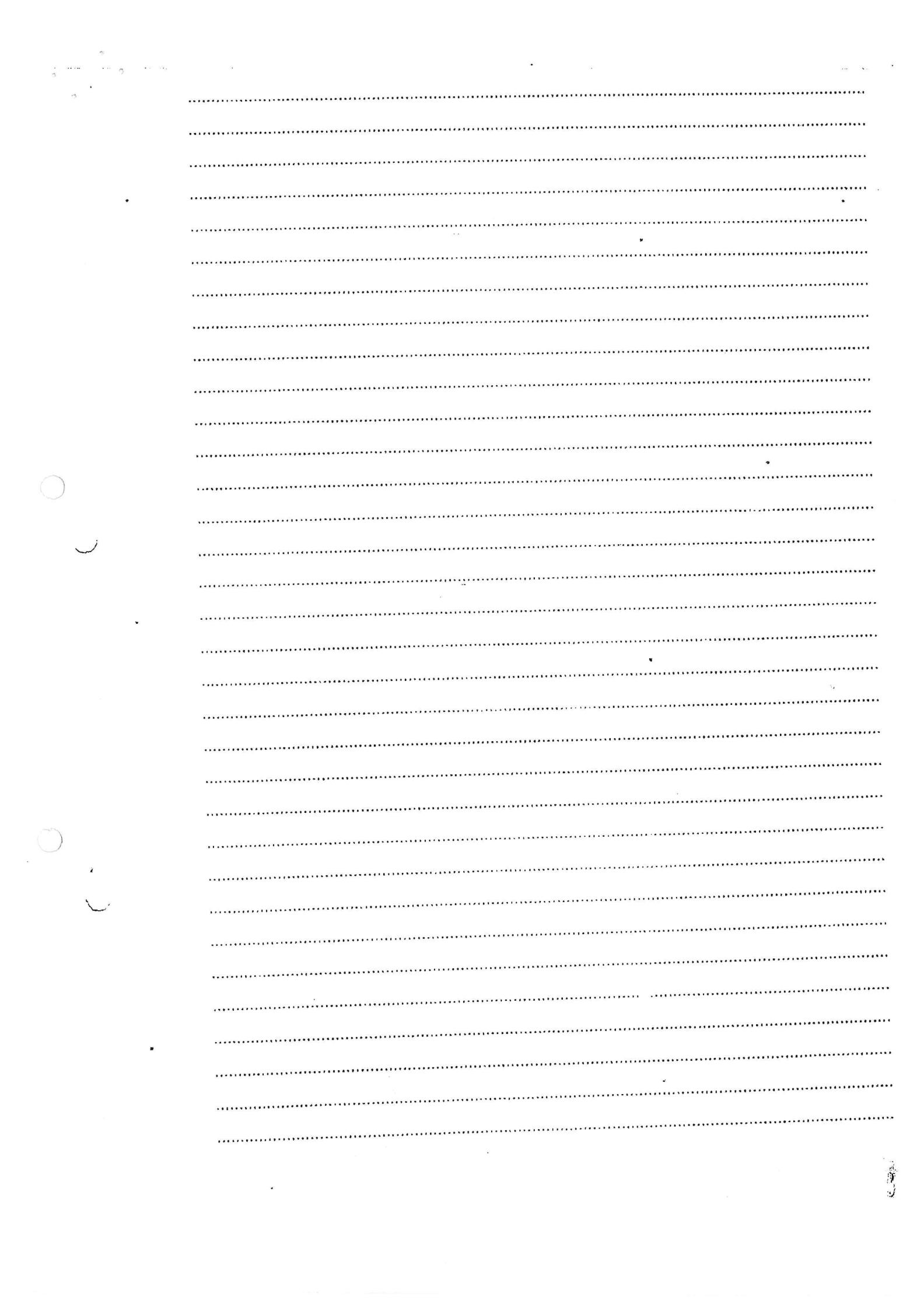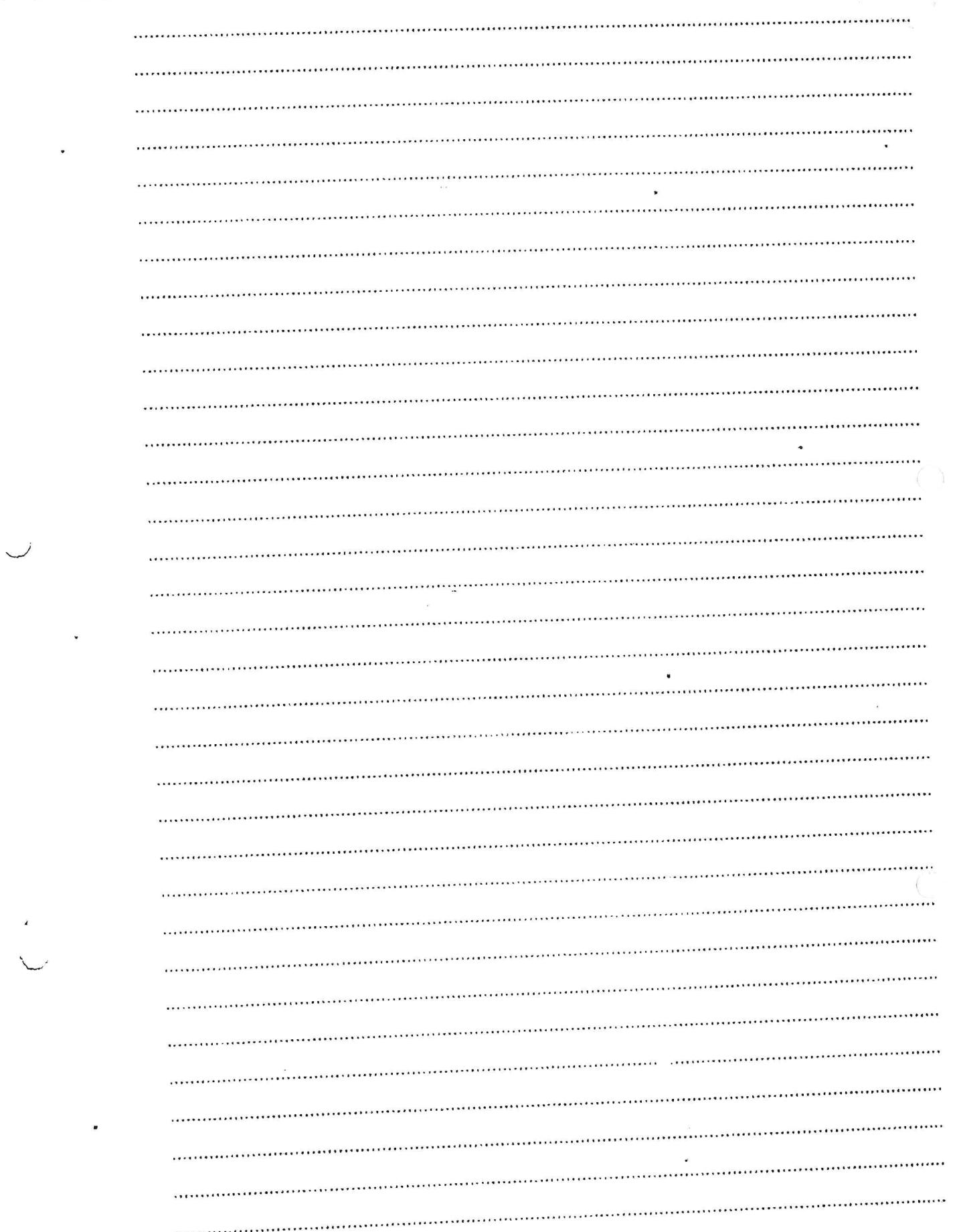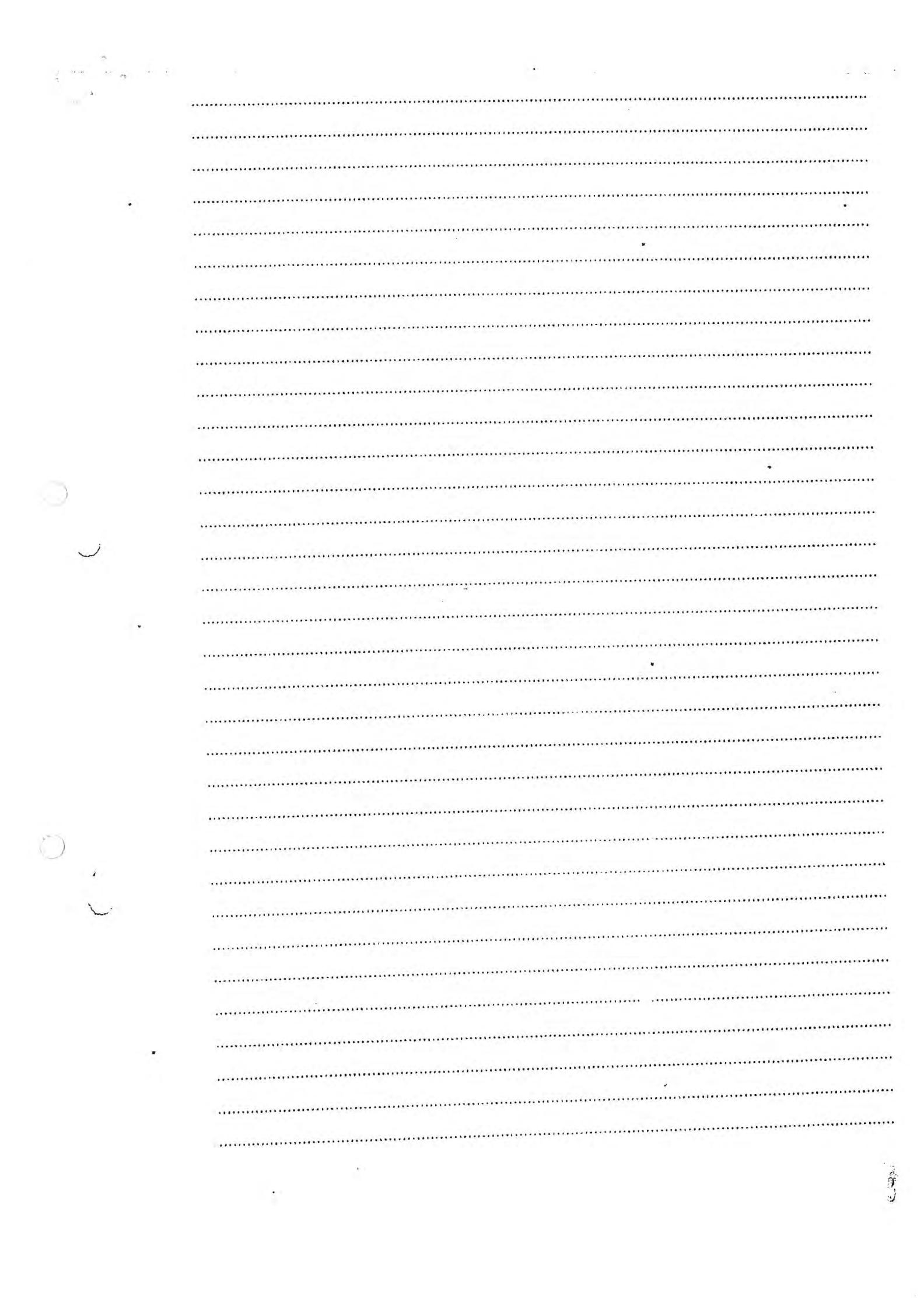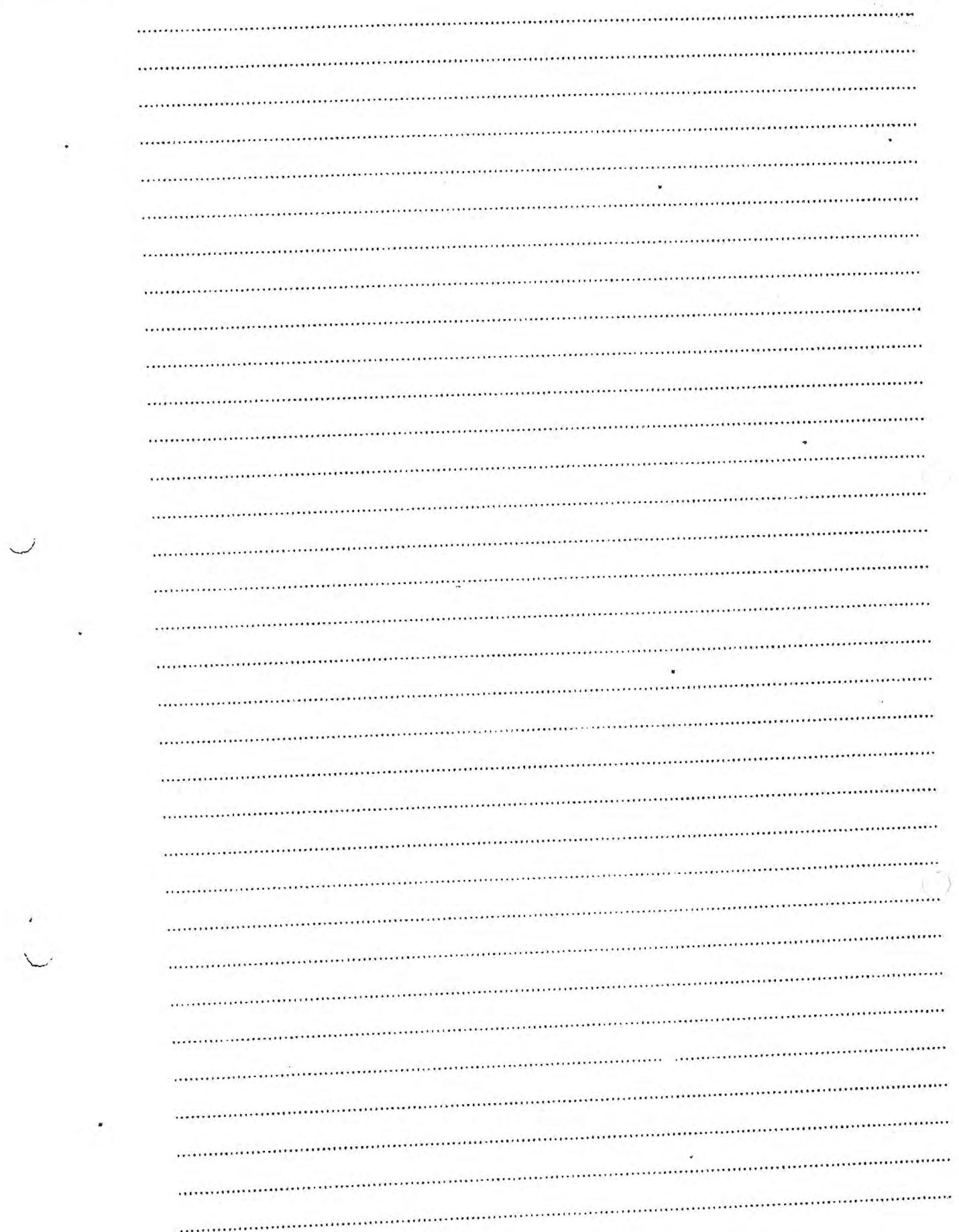
Name.................................................. Index No ........................

ADM NO.......................STREAM.....................SCHOOL........................

121/1

MATHEMATICS

Paper 1

MARCH, 2019

Time: $2^1/_2$ Hours

# HAWK 1 EXAMINATION COUNCIL

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

**MATHEMATICS**

## INSTRUCTIONS TO THE CANDIDATES

- *Write **your name** and **index number** in the spaces provided above*
- *This paper contains two sections; **Section** 1 and **Section** 11.*
- *Answer all the questions in **section 1** and only **five** questions from **Section** 11*
- *All workings and answers must be written on the question paper in the spaces pro\ below each question.*
- *Marks may be given for correct working **even if** the answer is wrong.*
- *Calculations and KNEC Mathematical tables may be used **EXCEPT** where s otherwise.*
- *Show all the steps in your calculations, giving your answers at each stage in the s\ below each question.*

FOR EXAMINERS'S USE ONLY

## Section 1

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

## Section 1I

| Question | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | **Total** |
|---|---|---|---|---|---|---|---|---|---|
| Marks | | | | | | | | | |

GRAND TOTAL

1. Evaluate:

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

(3mark

2. A line $L_1$ passes through point B and is parallel to the line $2y = 5x - 16$. M i: mid-point of line AB. Given the coordinates of A and M are (2, 3) and (4, 2) respecti find the equation of line $L_1$ in the form $y = mx + c$.

(4ma

3. Find the integral values that satisfy the inequality.

$2x + 3 \geq 5x - 3 > -8$

(3ma

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

(3r

5. Evaluate using tables of reciprocals and cubes only expressing your answer to 4 significant figures

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

(3ma

6. Elvis exchanged Ksh.600, 000 to Sterling pounds. After settling the bills worth £120 he changed the balance to Euros. He then purchased goods worth 200 Euros. Using the exchange rates below, calculate his balance in Kenyan shillings.

(3mark

| | Buying | Selling |
|---|---|---|
| 1 Sterling £ | 114.20 | 114.50 |
| 1 Euro | 101.20 | 101.30 |

7. Given that $P_1$ (6,4) is the image of P(1,2) under an enlargement with scale factor $\frac{1}{2}$. Fir the centre of enlargement

(3mark

8. A line $L_1$ passes through the point P(-1,2) and Q(2,-7)

(i) Find the equation of a line which is perpendicular to line $L_1$ and passes through point R(5,5) in the form of $ax + by + c = 0$

(3marks)

9. Solve for x and y

(4marks)

$$3^{2x-y} = 27$$
$$4^x \div 16^y = 1$$

10. Give that OA = 2i + 3j and OB = 3i -2j, find the magnitude of AB to one decimal place
(3mar

11. In a triangle ABC, AB = 6 cm, BC = 5 cm and AC = 7 cm. Find the area of the triangle.
(3mark

12. Three bells ring at intervals of 9 minutes, 15 minutes and 21 minutes. The bells will next ring together at 11.00 pm. Find the time the bells had last rang together.    (3marks)

13.   Three businessmen Njoroge, Mwaura and Kimani contributed a total of sh. 82, 250 to start a business. The ratio of the contribution of Njoroge to Mwaura was **2:3** and that of Mwaura to Kimani was **4:5**. How much did Kimani contribute?
(3marks

14. Express the number 1470 and 7056 each as a product of its prime factor. Hence,

evaluate $\dfrac{1470^2}{\sqrt{7056}}$, leaving the answer in prime factor form. (3marks

15. The production of milk, in litres of 15 cows on a certain day was recorded as follows; 15, 19, 22, 26, 15, 19, 20, 16, 26, 27, 22, 21, 20, 22 and 28. Determine:

a) the modal (1mark)

b) the median (2marks

16. Express the following recurring decimal as a fraction in its simplest form. (3marks)

$0.1\dot{5}\dot{3}$

17. The diagram below shows the speed-time graph for a bus travelling between two station The bus begins from rest and accelerates uniformly for 30 seconds. It then travels at constant speed for 60 seconds and finally decelerates uniformly for 40 seconds.



Speed

Time in seconds
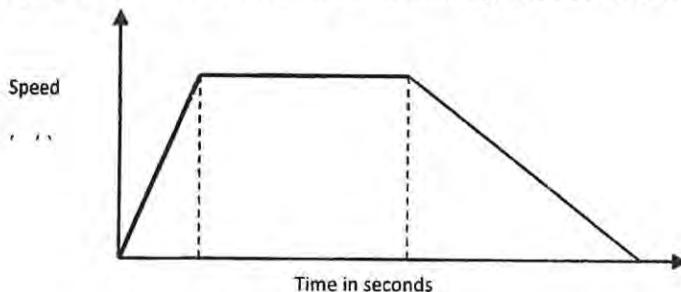
Given that the distance between the two stations in 2090m. Calculate

(a) The maximum speed, in km/h the bus attained                    (3marks

(b) The acceleration                                               (2mark

(c) The distance travelled during the last 20 seconds             (2marks

(d)The time the bus takes to travel the first half of the journey  (3marks

18. The diagram below shows two circles centre A and B which intersect at point P and Q
Angle PBQ = 40⁰ and angle PAQ = 70⁰, and PA = AQ = 8cm.
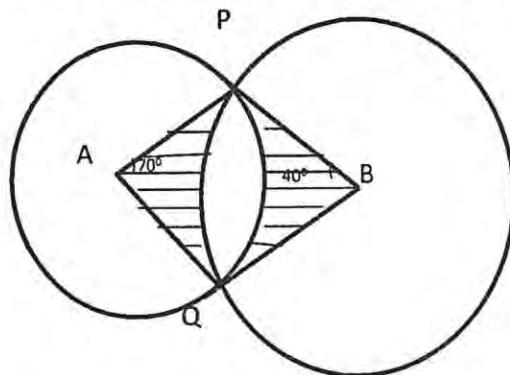


Use the diagram to calculate to two d.p
(a) The length PQ                                                           (2marks

(b) The length PB                                                           (2marks

(c) Area of minor segment of circle centre A                               (2mark

(d) Area of minor segment of circle centre B                               (2n  k

(e) The area of shaded region.                                            (2mark

19. The figure **below** is a triangle OAB where OA = **a** and OB = **b**. A point R divides AB in the ratio 2: 5 and a point T divides OB in the ratio 1: 3. OR and AT intersect at D.
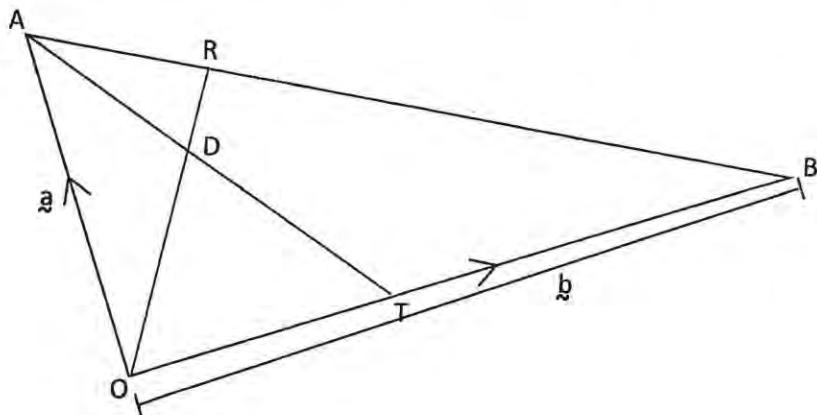


(a) Find in terms of **a** and **b**.

(i) **BT.**

(1mark

(ii) **OR**

(2marks)

(iii) **AT**

(2marks)

(b) Given that **AD** = k**AT** and **RD** = h**RO** where k and h are scalars. Find the values of k and h. Hence express **AD** in term of **a** and **b**.

(5marks)

20. The diagram below represents squared base pyramid standing vertically. AB = 12cm, PQ = 4cm and the height of pyramid PQSV is 10cm.
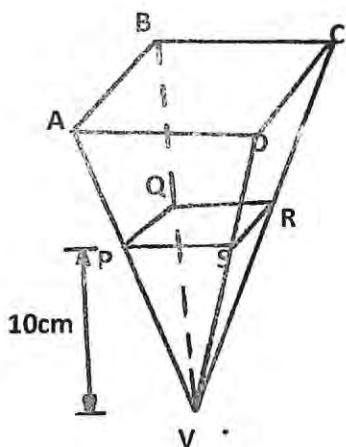


(a) If PQRSV is a solid, find the volume of material used to make it.                    (2marks)

(b) Find the,
   (i) Height of the frustum ABCDPQRS                                        (2marks)

   (ii) Volume of the frustum                                                (3marks)

(c) The liquid from a hemisphere is poured into PQRSV. Find radius of the hemisphere if the liquid from hemisphere filled the solid completely.          (3marks)

21. Without using a set square or a protractor construct.
   (a) Triangle ABC such that AB = 8cm, BC = 6cm and ∠ABC = 30°.            (2 marks

   (b) Measure the length AC                                               (1mark)

   (c) Draw a circle that touches sides AB, BC and AC                       (3marks)

   (a) Measure the radius of the circle                                    (1mark)

   (b) Hence or otherwise calculate the area in the triangle but not in the circle.   (3marks)

22. Triangle ABC vertices A (-2, 6), B (2, 3) and C (-2, 3) is reflected in the line x = 3 to give the image $A_1B_1C_1$. $A_1B_1C_1$ is translated by the vector $\begin{pmatrix} -10 \\ 2 \end{pmatrix}$ to give image $A_2B_2C_2$. $A_3B_3C_3$ with coordinates $A_3$ (6,-6) $B_3$ (2,-3) and $C_3$ (6,-3) is the image of $A_2B_2C_2$ after transformation. Plot all the triangles in the grid provided and determine:

(i) The transformation that maps $A_2B_2C_2$ onto $A_3B_3C_3$ (2marks)

(ii) The single transformation that maps ABC onto $A_3B_3C_3$ (2marks)
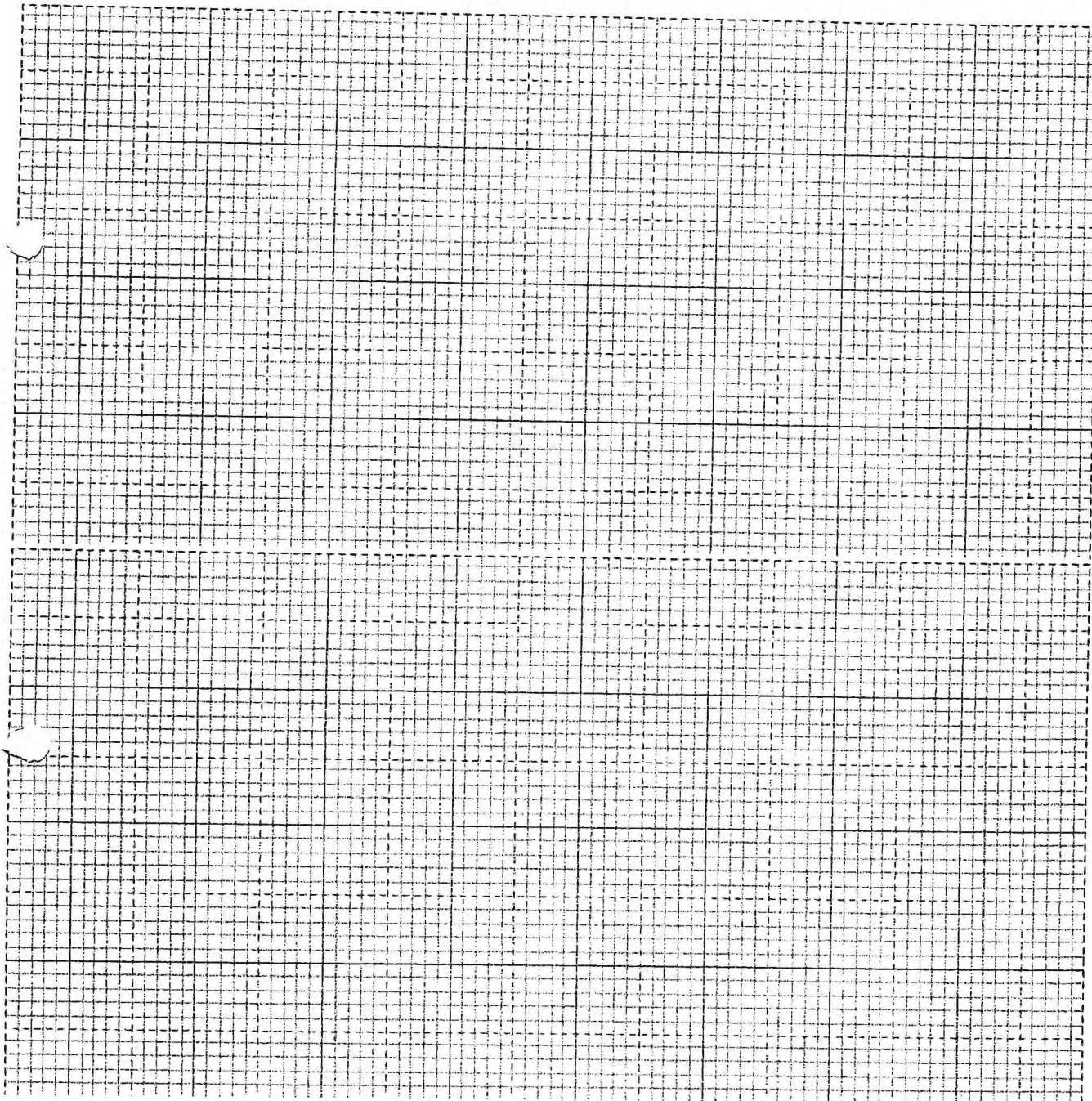
23. (a) (i) Fill the table below for the function.  $y = 2x^2 + 5x - 12$ for $-8 \le x \le 4$

(2mar

| X | -8 | -7 | -6 | -5 | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 |
|---|----|----|----|----|----|----|----|----|---|---|---|---|---|
| Y | 76 |    |    |    |    | -9 |    |    |   | -5 |   |   | 40 |

(ii) Using the table, draw the graph of the function $y = 2x^2 + 5x - 12$. Use the scale 1cm t
1 unit on the x-axis and 1cm for 10 units for the y – axis          (4marl
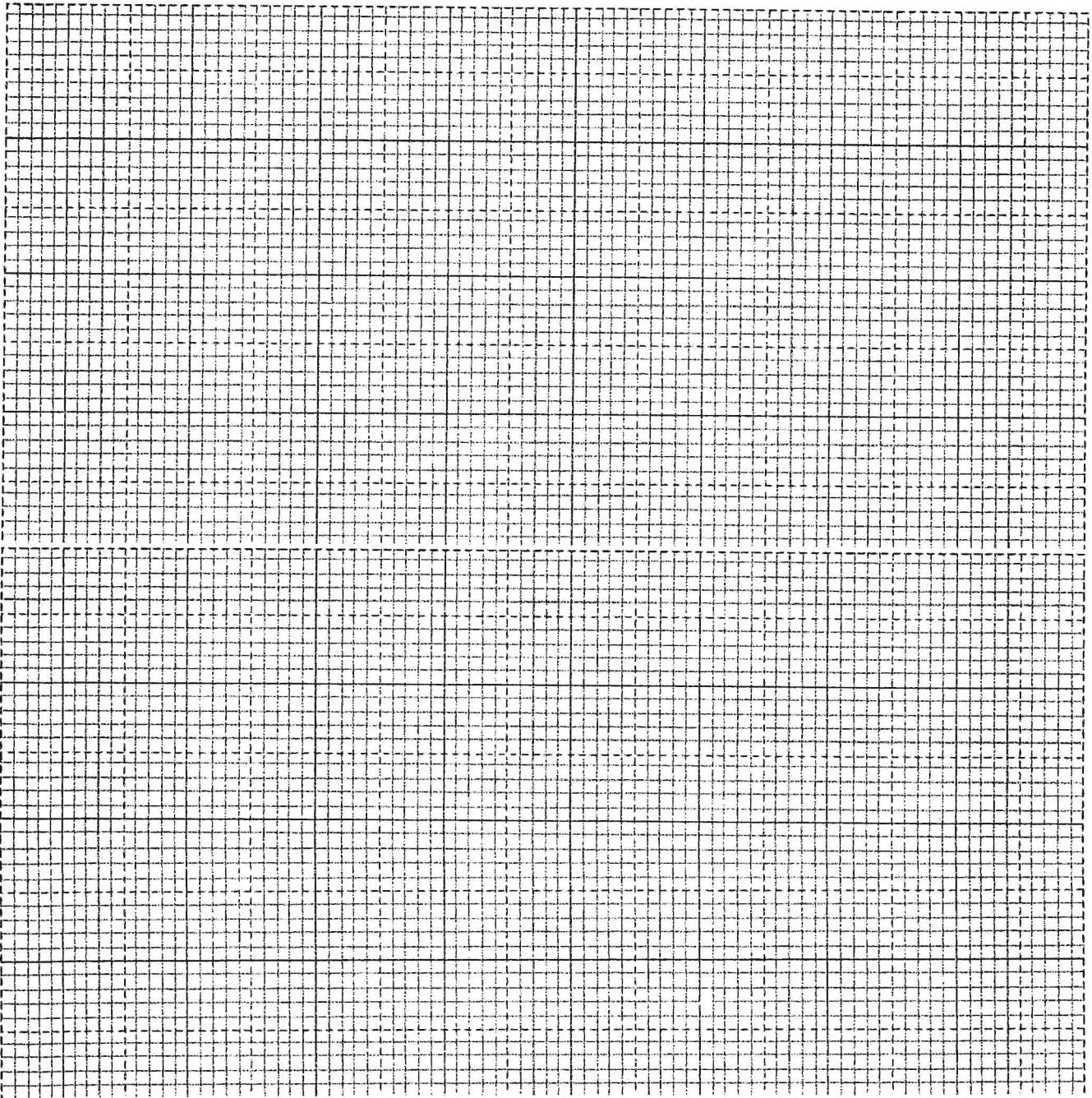


(b) Use the graph drawn above to solve the following equations.
   (i) $2x^2 + 5x - 12 = 0$          (2marl

   (ii) $3 - 7x - 3x^2 = 0$

24. In the figure below O is the centre of the circle and PTQ is the tangent at T. If PT =ST and angle SRT = 52°, **determine** the size of the angles below giving reasons:
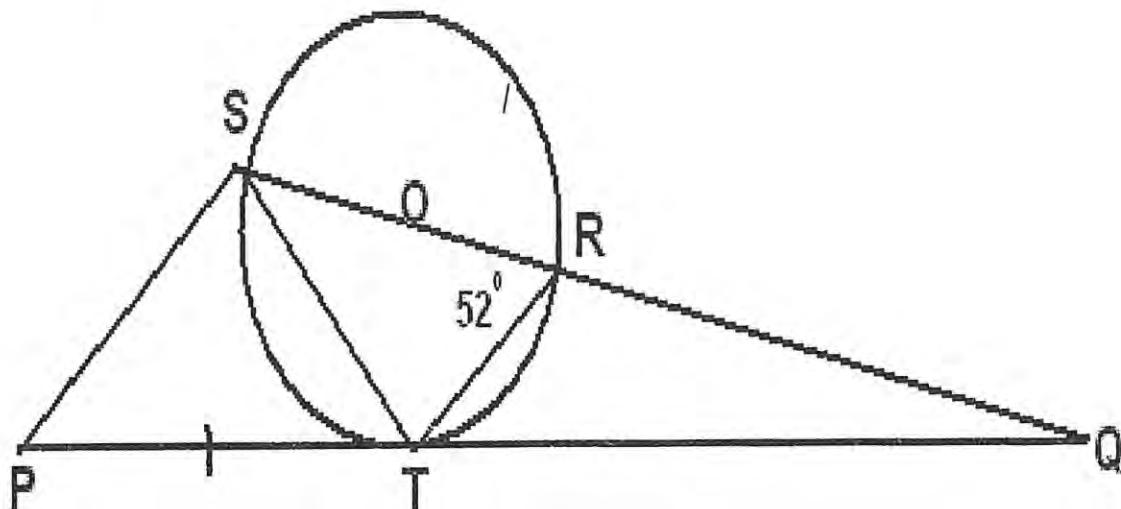


a) PTS                                           (2marks)

b) RTQ                                        (2marks)

c) TSR                                         (2marks)

d) TQR                                        (2marks)

e) PSQ                                         (2marks)

Name.......................................................... Index No ........................

ADM NO...............................STREAM.....................SCHOOL ...........................

121/2

MATHEMATICS

Paper 2

MARCH 2019

Time: 2$^1$/$_2$ Hours

# HAWK 1 EXAMINATION COUNCIL

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

## MATHEMATICS

## INSTRUCTIONS TO THE CANDIDATES

- *Write **your name** and **index number** in the spaces provided above*
- *This paper contains two sections; **Section 1** and **Section 11**.*
- *Answer all the questions in **section 1** and only **five** questions from **Section 11***
- *All workings and answers must be written on the question paper in the spaces pro* *below each question.*
- *Marks may be given for correct working **even if** the answer is wrong.*
- *Calculations and KNEC Mathematical tables may be used **EXCEPT** where st* *otherwise.*
- *Show all the steps in your calculations, giving your answers at each stage in the sp* *below each question.*

## FOR EXAMINERS'S USE ONLY

### Section 1

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

### Section 1I

GRAND TOTAL

| Question | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | **Total** |
|----------|----|----|----|----|----|----|----|----|-----------|
| Marks | | | | | | | | | |

# SECTION I (50 MARKS)

## Answer all the questions in the spaces provided

1. Using logarithm tables only, evaluate (4marks

$$\sqrt[3]{\frac{849.6 \times 2.41}{3941}}$$

2. The sides of a triangle were measured to 1 decimal place as 6.5cm, 7.4cm and 8.2cm respectively. Calculate the percentage error in its perimeter (3marks)

3. Make n the subject of the formula $\frac{r}{p} = \frac{m}{\sqrt{n-1}}$ (3marks)

4. Solve for $\chi$ in

   $\log_2 (\chi^2 - 9) = 3 \log_2 2 + 1$

   (3ma

5. (a) Expand $\left(1 + \dfrac{x}{2}\right)^8$ up to a term in $x^3$

   (1ma

   (b) Use the expansion in (a) above to find the value of $(0.9)^8$

   (2mar

6. Rationalize and simplify.

   (3marl

   $$\frac{3\sqrt{5}}{\sqrt{45} + \sqrt{15}}$$

2

7. Solve the simultaneous equations (4marks)

$$x^2 + y^2 = 26$$
$$x - y = 4$$

8. The figure below shows a circle centre O, with chords PQ and RS produced to meet externally at T. Given RT=24cm, PQ=7cm, QT=9cm find ST (3marks)
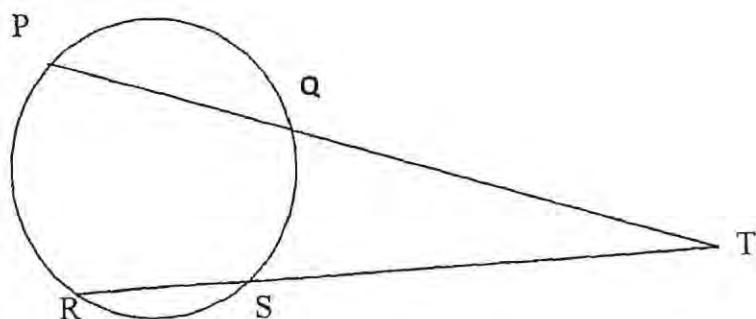


9. A and B are grades of flour that cost Kshs 40 and Kshs 50 per per kilogram respectively. In what ratio should the two grades be mixed to produce a mixture that costs sh 48 per kilogram? (3 marks)

10. Given that point A(-8,-2) and B (-4,2) , find the co-ordinates of point C which divides AB in the ratio 7: -3 (3marks)

11. Triangle ABC is the image of triangle XYZ when transformed under the matrix $\begin{pmatrix} 3 & -1 \\ 2 & 4 \end{pmatrix}$ If the area of triangle ABC is 770 cm2, find the area of triangle XYZ. (3marks)

12. Simply the expression $\dfrac{3x^2 - 2xy - y^2}{18x^2 - 2y^2}$ (3marks)

13. John deposits Shs.24000 in a fixed account. After 4 years the money accumulated to Kshs.45, 000. If the bank paid compound interest of r% p.a compounded semi-annually, find r. (3marks)

14. Solve the quadratic equation using completing square method $4y^2 = -12y + 7$

(3marks)

15. X and Y are two variables such that Y is partly constant and partly varies inversely as the square of X. If Y = 3 when X = 2 and Y = 5 when X = 1, find Y when X = 4.

(3marks)

16. Triangle ABC is such that AB = 8 cm , AC = 6 cm and BC = 12 cm, calculate angle ACB.

(3marks)

17.  Linnet's basic salary is sh.100, 000. She is housed by her employer and pays nominal rent of sh.2000 which is deducted from her salary. She is entitled to an entertainment allowance of sh.5, 000 and a responsibility allowance of sh.10, 000. She has a bank loan and hire purchase repayments which she repays at the rate of sh.15,000 and sh.3, 000 per month. She also makes cooperative share contributions of sh.5, 000 per month. Calculate:

(a)  Her gross salary

(1mark)

(b)  Her taxable income in Ksh.

(1mark)

During that month, the table below was used to determine individual rate of income tax.

| Income K£ p.m. | | Rate (sh. per £) |
|---|---|---|
| 1 | - 484 | 2 |
| 485 | - 940 | 4 |
| 941 | - 1396 | 6 |
| 1397 | - 1852 | 7 |
| Over 1852 | | 9 |

(c)  Use the table to determine;

(i)  Her monthly gross tax

(4marks)

(ii) Her net tax given that she is entitled to a tax relief of sh.1056 per month.

(2mark)

(iii)  Her net salary.

(2marks)

18. The table below shows high altitude wind speeds recorded at a weather station in a period of 100 days.

| Wind speed (knots) | 0 - 9 | 10 - 19 | 20 - 29 | 30 - 39 | 40 - 49 | 50 - 59 | 60 – 69 | 70 - 79 |
|---|---|---|---|---|---|---|---|---|
| Frequency (days) | 10 | 19 | 22 | 18 | 13 | 11 | 5 | 2 |

(a) On the grid provided draw a cumulative frequency graph for the data.          (4marks)

(b) Use the graph to estimate;
   (i) The interquartile range                                                      (3marks)

   (ii) The number of days when the wind speed exceeded 56 knots          (1mark)

   iii) Find the seventh decile of the data.                                       (2marks)
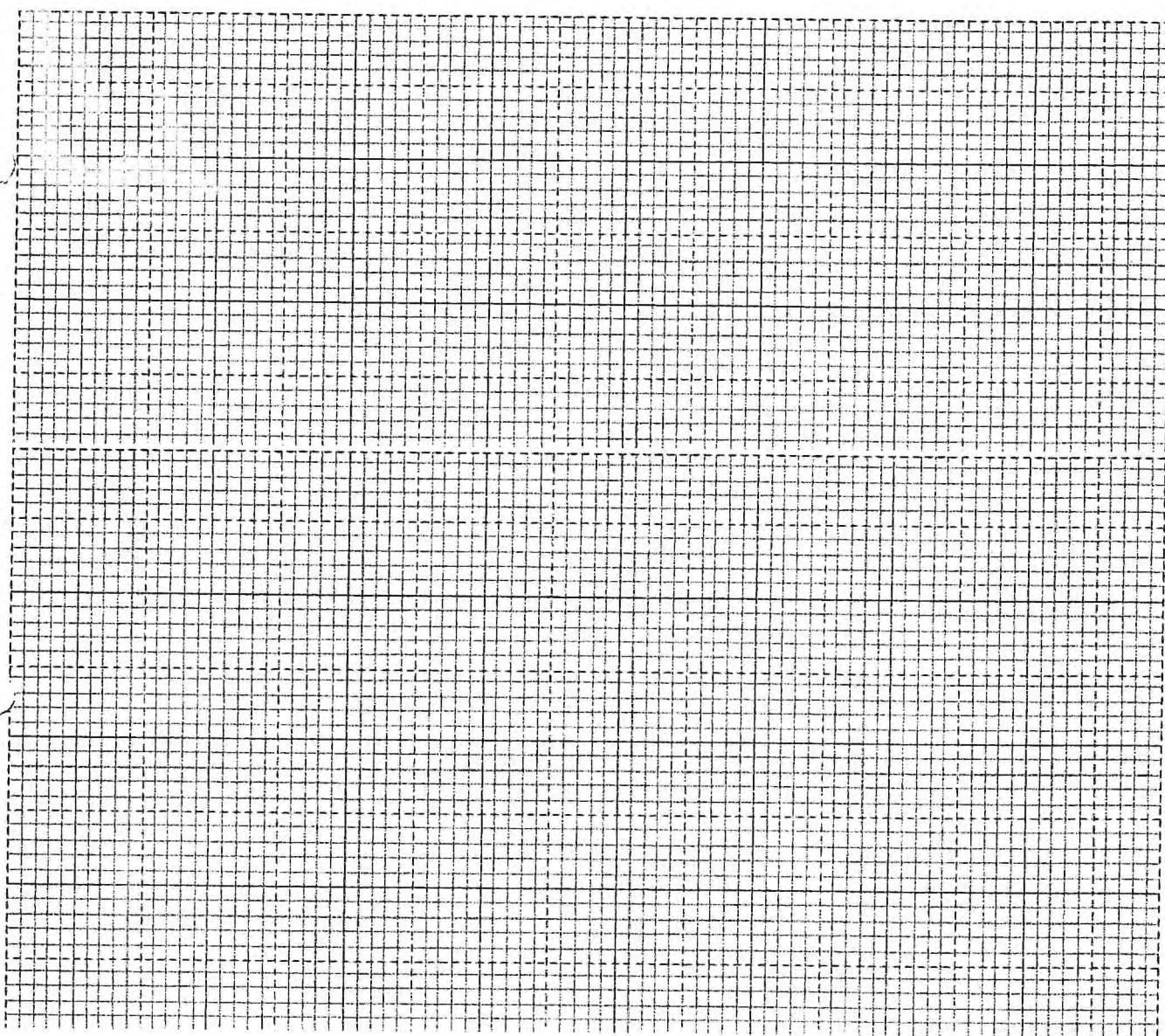
19.    The probability of a candidate passing her secondary examination is 4/5. If she passes his examination the probability of her joining the university is 2/3. If she fail her examination, the probability of her joining the university is ¼ . If she joins the university the probability of her getting a job is 6/7 and if she does not join the university the probability of her getting a job is 2/9.

Using a tree diagram, find,

(a) The probability that she fails her examination.                                                                    (3marks)

(b) Find the probability that she got a job after failing her secondary examination.  (2marks)

(c) The probability that she joins university                                                                    (2marks)

(d) The probability that she did not get a job                                                                    (3marks)

20.     Using a ruler and pair of compasses only, construct triangle ABC in which
AB = 9cm, BC = 9.5cm and angle BAC = 75⁰. Measure AC.                    (4marks)

(b) One the same side of AB as C:

   (i) Determine the locus of a point P such that $\angle APB = 60^0$                    (2marks)

   (ii) Construct the locus of R such that AR > 4cm                    (2marks)

   (iii) Determine the locus T such that $\angle ACT \geq \angle BCT$                    (2marks)

21.    A transformation represents by the matrix $\begin{pmatrix} 2 & 0 \\ 0 & 2 \end{pmatrix}$ maps A(1, 3), B(3, 3) and

C(2, 1) onto $A^1B^1$ and $C^1$ respectively.

**(a)** (i) On the grid provided, draw the triangle ABC and its image $A^1B^1C^1$ on the same
        axes.
                                                                              (3marks).
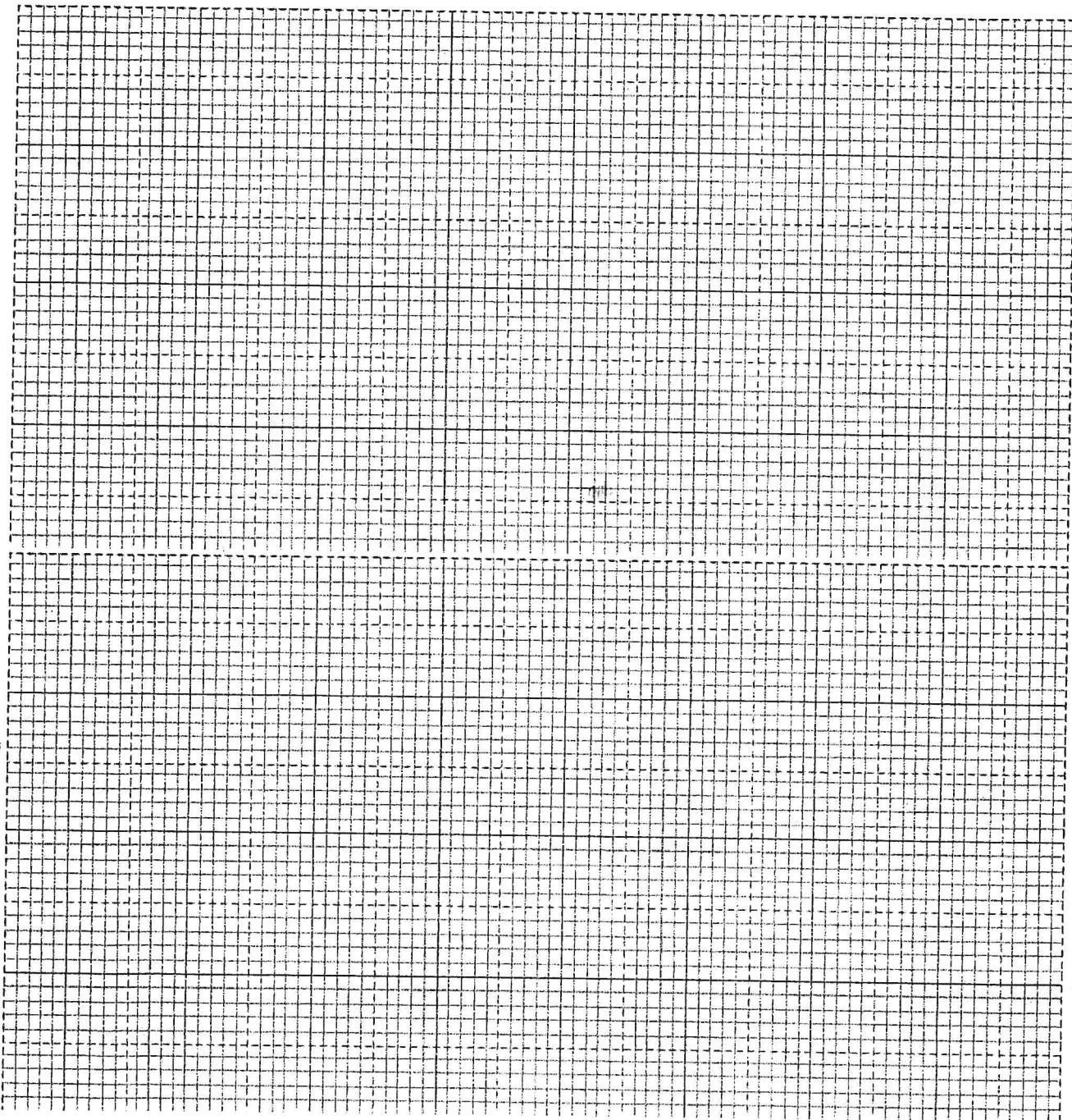
(ii) Hence or otherwise determine the area of the triangle $A^1B^1C^1$ (2marks)

(b)Another transformation represented by the matrix $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$ maps $A^1B^1C^1$ onto $A^{11}B^{11}C^{11}$.

    (i)    Draw triangle $A^{11}B^{11}C^{11}$ on the same axes. (2mar'·s)

    (ii)  Describe the transformation represented by the matrix $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$. (1mark)

    (b) Determine the matrix of the single transformation which maps $A^{11}B^{11}C^{11}$ onto ABC. (2marks)

11

22.    PQRSV is a right pyramid on a horizontal square base of side 10cm. The slant edges are all 8cm long. Calculate;
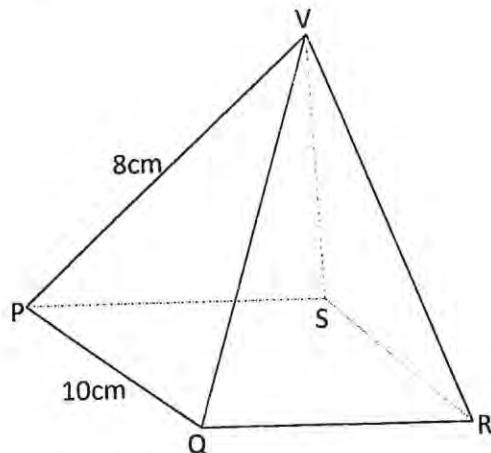


a)  The height of the pyramid                                                    (2marks

b)  The angle between                                                            (2mark
    i)    Line VP and the base PQRS

    ii)   Line VP and line RS                                                    (2mark

    iii)  Planes VPQ and VRS                                                     (4marl

23. Complete the table below for y = sin2x and y = sin(2x+30⁰) giving values to 2dp.

| x⁰ | 0 | 15 | 30 | 45 | 60 | 75 | 90 | 105 | 120 | 135 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sin 2x⁰ | 0 | | | | 0.87 | | | | -0.87 | | |
| Sin(2x+30⁰) | 0.5 | | | | 0.50 | | | | -1.0 | | |

(b) Draw the graph of y = 2x and y = (2x+30⁰) on the same axis ( Use a scale of 1 cm to represent 10⁰ and 2 cm to represent 0.5 units) (4marks
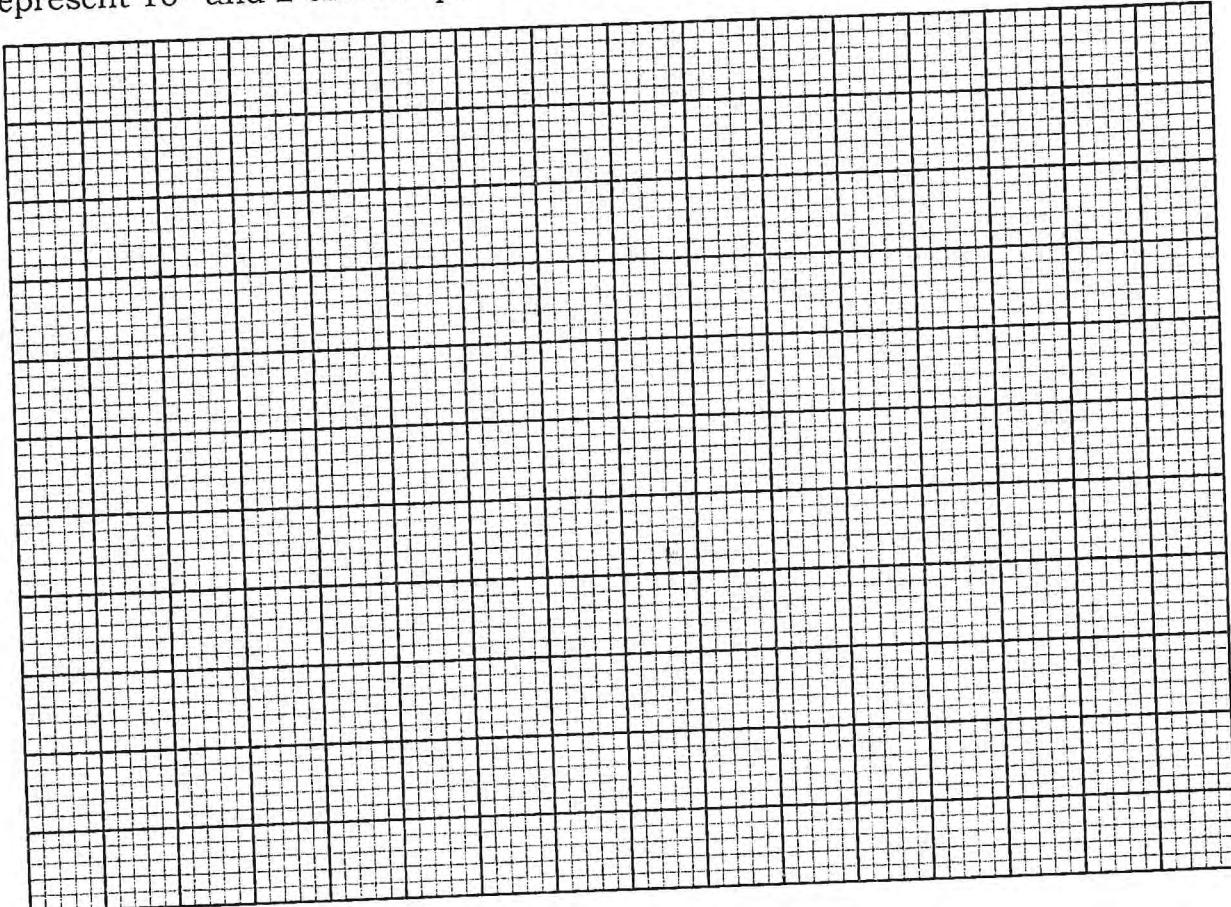


(c) Use your graph to solve sin (2x+30⁰) – sin 2x = 0. (1ma

(d) Describe the transformation which maps the wave, y = sin 2x onto the wave of y= sin (2x + 30). (2mar

(e) State the amplitude and period of y = a cos (bx + c). (2mar

13

24. The 2$^{nd}$, 7$^{th}$ and 27$^{th}$ term of an AP are the first three consecutive terms of a GP. The 13$^{th}$ term of the AP is 38. Determine

(a) The first term and the common difference of the AP. (5marks)

(b) The sum of the first 40 terms of the arithmetic series. (3marks)

(c) The sum of the first 6 terms of the geometric series. (2marks)

**THE END**
**Wishing you all the best!**
**HAWK 1 121/2**

Name: ......................................................... Adm no ....................................

School.................................Index No. ...............................................................

Stream: .....................Signature ........................Date.................................................

231/3
BIOLOGY
PAPER 3
MARCH 2019
TIME: 1¾ HOURS

## HAWK 1 EXAMINATIONS 2019
# BIOLOGY PAPER 3
*Kenya Certificate of Secondary Education (K.C.S.E.)*

## INSTRUCTIONS TO CANDIDATES:

- *Write **your name, School** and **Index Number** in the spaces provided.*
- *Answer **all** the questions*
- *Candidates should check the question paper to ascertain that no questions are missing.*

*For Examiner's Use Only:*

| QUESTION | MAXIMUM SCORE | CANDIDATE'S SCORE |
|----------|---------------|-------------------|
| 1 | 17 | |
| 2 | 10 | |
| 3 | 13 | |
| TOTAL | 40 | |

*TURN OVER.*

1. You are provided with a solution labelled L, starch solution and sodium chloride in two different concentrations 0.1% and 1.4%. Place 3ml of starch solution in test tubes labelled 1, 2 and 3. Add 3 drops of 0.1% sodium chloride to the test tube labelled 2, and 3 drops of 1.4% sodium chloride to the test tube labelled 3.

Add 3 ml of solution L each test tube labelled 2 and 3.

(a) Place a drop of the content from each test tube 1, 2 and 3, on a white tile. To each drop add iodine solution and record your answer in the table below.                  (3 Marks)

| Test tube | Observation at start of experiment | Observation at end of experiment |
|---|---|---|
| 1. Starch | | |
| 2. Starch + 0.1% Sodium Chloride + L | | |
| 3. Starch + 1.4% Sodium Chloride + L | | |

(b) Place the test tube in water bath maintained at 37°C. Allow to stand for 30 minutes. Place a drop of the contents from each test tube on a tile. To each drop add iodine solution. Record your observation in the table. (3 Marks)

| Test tube | Observation at start of experiment | Observation at end of experiment |
|---|---|---|
| 4. Starch | | |
| 5. Starch + 0.1% Sodium Chloride + L | | |
| 6. Starch + 1.4% Sodium Chloride + L | | |

(c) Add equal amounts of Benedict's solution in test tubes labeled 2 and 3 and boil. Record your observations. (1 Mark)

**Test tube 2**
...............................................................................................................................
...............................................................................................................................
(1 Mark)

**Test tube 3**
...............................................................................................................................
...............................................................................................................................
...............................................................................................................................
(1 Mark)

(d) Why was the test tube labeled 1 included in the experiment.
...............................................................................................................................
...............................................................................................................................

(e) Account for the results in test tube 1, 2 and 3 at the end of the experiment.                    (6 Marks)

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(f)  Suggest the identity of solution L                                                              (1 Mark)

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(g) Why were the test tubes placed in a water bath maintained at 37°C        (1 Mark)

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2.  You are provided with specimens B1, B2 and C. B1 and B2 are similar except that B2 has been boiled while B1 and C are fresh.
Cut a small piece of B1 and chop it into small pieces. Place the chopped pieces into a test tube and add 1ml of hydrogen peroxide. Record your observation in the table below. Repeat the above procedure with specimens B2 and C and record your observation in the table.        (3 Marks)

| Specimen | Observation |
|----------|-------------|
| B1       |             |
| B2       |             |
| C        |             |

b) Account for your observation involving each specimen.                                             (3 Marks)

B1.......................................................................................................................................

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

B2.......................................................................................................................................

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

C.........................................................................................................................................

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c) (i) Cut another piece of specimen B! chop it into small pieces, and place into a test tube and add 1ml of hydrogen peroxide. Cover the mouth of the test tube with your thumb for one minute. Introduce a glowing wooden splint into the test tube.
Record your observation and account for them. (2 Marks)
Observations

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Account for observation:

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

(ii) Write down an equation to show the reaction that occurred when hydrogen peroxide was added to B1 in (c) (i) above. (1 Mark)

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(iii) Repeat the procedure in c(i) with distilled water instead of hydrogen peroxide. Record your observation and account for your observation. (2 Marks)
Observations

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Account for observation:

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d) Explain why it is necessary to chop the specimens into small pieces before carrying out the experiment. (1 Mark)

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e) Give a reason why hydrogen peroxide should not accumulate in living tissues. (2 Marks)

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3. Below are drawings of various organisms. Examine them.
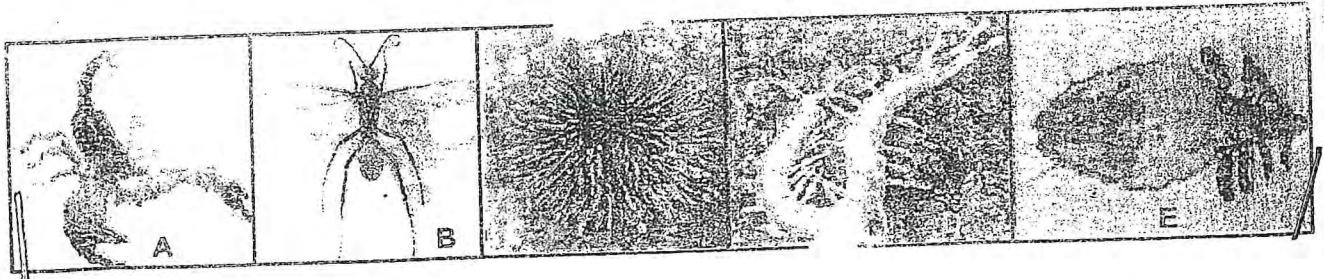


i) Name the phylum to which B belongs: (1 Mark)

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ii) Give three reasons for our answer in (a) (i) above                                    (3 Marks)

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b) Name the class to which specimen A belongs:                                          (1 Mark)

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c) Give the differences between specimen B and E                                       (3 Marks)

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US the dichotomous key provided to identify the organisms.

1.  a) Jointed appendages present............................................................................ go to 2
    b) Jointed appendages absent............................................................................. go to 7
2.  a) Have 3 pairs of legs.................................................................................... go to 3
    b) Have more than 3 pairs of legs...................................................................... go to 5
3.  a) With wings............................................................................................ go to 4
    b) Without wings......................................................................................... Anoplura
4.  a) Have one pair of wings............................................................................... Diptera
    b) Have two pairs of wings............................................................................. Hymenoptera
5.  a) Have four pairs of legs............................................................................. Arachnida
    b) Have more than 10 pairs of legs.................................................................... go to 6
6.  a) With one pair of legs per segment.................................................................. Chilopoda
    b) With two pairs of legs per body segment........................................................... Diplopoda
7.  a) With body enclosed in a shell...................................................................... Mollusca
    b) Body surface with spiny projections................................................................ Echinodermata

Identify the steps followed to identify organism A, B, C, D and E                       (5 Marks)

| Specimen | Steps followed | Identity |
|----------|----------------|----------|
| A        |                |          |
| B        |                |          |
| C        |                |          |
| D        |                |          |
| E        |                |          |

Name: ............................................................ Adm no .................................

School................................Index No. ..............................................

Stream: ....................Signature .........................Date..........................................



231/2
BIOLOGY
PAPER 2
MARCH 2019
TIME: 2 HOURS

# HAWK 1 EXAMINATIONS 2019
# BIOLOGY PAPER 2
*Kenya Certificate of Secondary Education (K.C.S.E.)*

## INSTRUCTIONS TO CANDIDATES:

- *Write your name, School and Index Number in the spaces provided.*
- *Answer all the questions in section A, question 6 is compulsory and answer either question 7 or 8*
- *Candidates should check the question paper to ascertain that no questions are missing.*

*For Examiner's Use Only:*

| SECTION | QUESTION | MAXIMUM SCORE | CANDIDATE'S SCORE |
|---------|----------|---------------|-------------------|
| A | 1 | 8 | |
| | 2 | 8 | |
| | 3 | 8 | |
| | 4 | 8 | |
| | 5 | 8 | |
| B | 6 | 20 | |
| | 7 | 20 | |
| | 8 | 20 | |
| TOTAL SCORE | | 80 | |

*TURN OVER.*

1. a) Each human body cell has 46 chromosomes in its nucleus. How many of these are sex chromosomes. (1 Mark)

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

b) Haemophilia is due to a recessive gene. The gene is sex-linked and linked on the X-chromosome. The chart below represents the offspring of parents who are phenotypically normal for haemophilia

KEY

○ Normal Female

☐ Normal Male

▨ Haemophilic Male
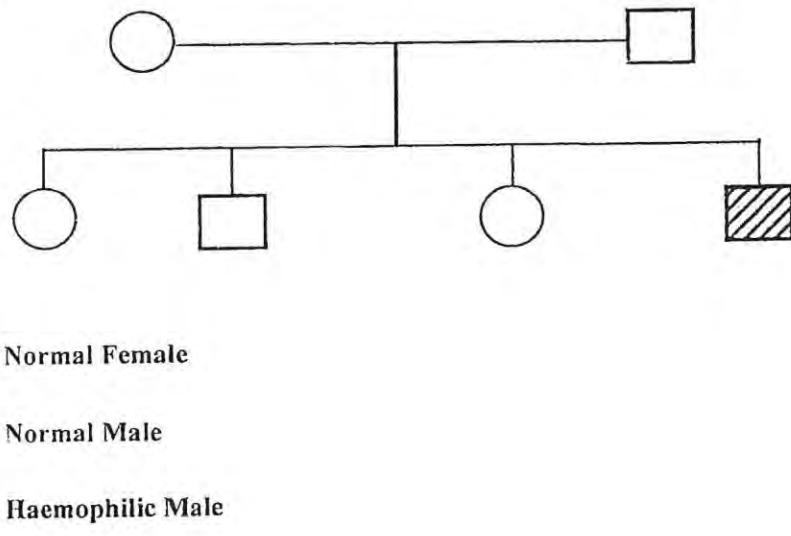
i) What are the parental genotypes (1 Mark)

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ii) Give the reason for our answer in b(i) above (2 Marks)

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c) Work out the genotypes of the offspring (4 Marks)

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2. A student set up an experiment to investigate a certain process. Study it and answer the question that follow. The cubes are of the same size and shape.
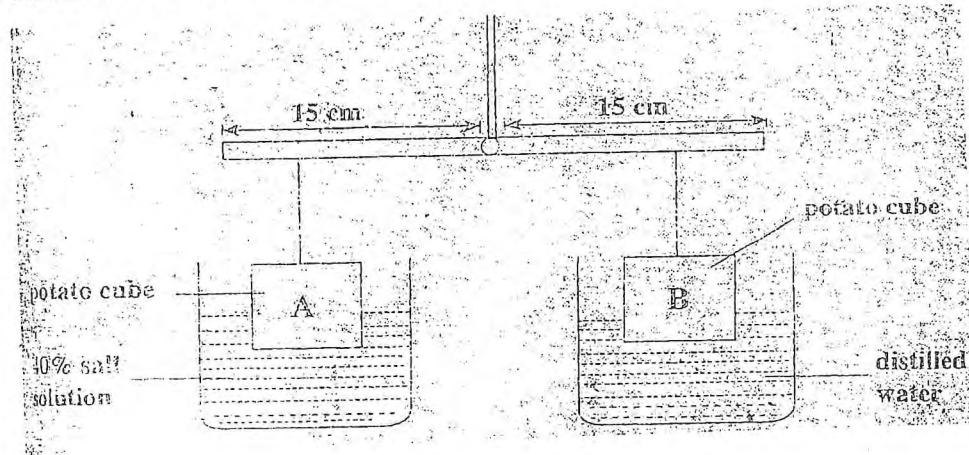


a) Name the process being investigated. (1 Mark)

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b) State **THREE** roles played by the process named in a) above in plants. (3 Marks)

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c) What observation would be made on potato cubes after 40 minutes. (1 Marks)

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d) Account for your observation.(3 Marks)

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3. a) List **TWO** environmental factors influencing the opening and closing of the stomata. (2 Marks)

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b) The diagram below can be used to demonstrate the mechanism of breathing in a mammal.
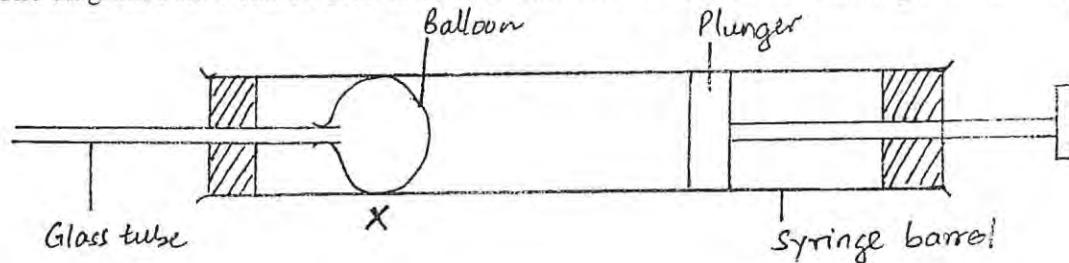


i) Account for observation made when the plunger is pushed towards point **X**. (3 Marks)

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ii) What structure in a mammal is represented by the following:
- The rubber balloon (1 Mark)

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The syringe barrel (1 Mark)

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The plunger (1 Mark)

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3. After an ecological study of feeding relationships, students constructed the food web shown below.
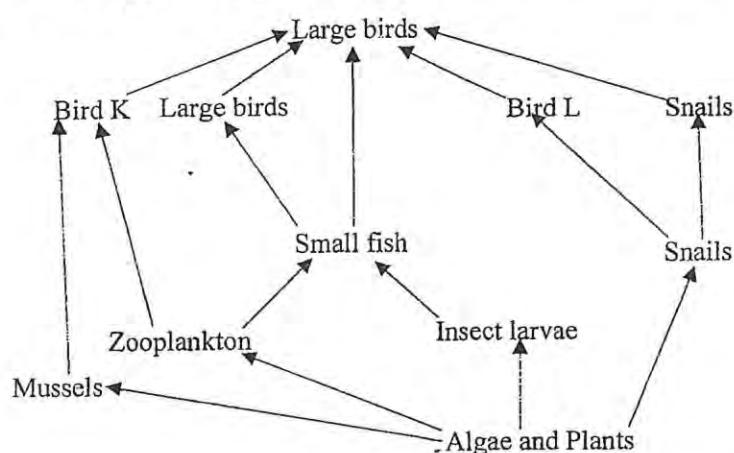
a) Name the process through which the energy from the sun is incorporated into the food web.
(1 Mark)

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b) State the mode of feeding of the fish in the food web.                                    (1 Mark)

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c) Name the **TWO** ecosystems in which the organisms in the food web live.          (2 Marks)

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d) What would happen to the organisms in the food web if bird L migrated.          (2 Marks)

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e) Draw a food chain involving zooplankton and large fish.                              (1 Mark)

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f) The biomass of the producers in this ecosystem was found to be greater than that of primary consumers.                                                                                       (1 Mark)

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5 a) Apart from carbon, hydrogen and oxygen, list **THREE** other elements that make up proteins.
(3 Marks)

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b) Explain why variegated plants accumulate less food than non-variegated plants under similar conditions.                                                                                       (2 Marks)

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c) State **TWO** properties of polysaccharides. (2 Marks)

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c) What is the role of secretin in digestion? (1 Mark)

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## SECTION B (40 MARKS)
*Answer question 6 (compulsory) and either question 7 or 8 in this section*

6. The data below shows the results of an investigation into the relationship between the rate of transpiration in moving and still air against stomatal aperture.

| Stomatal aperture in microns | | 0 | 2.5 | 5.0 | 7.5 | 10 | 15 | 20 |
|---|---|---|---|---|---|---|---|---|
| Stomatal transpiration Nano grams per second cm$^{\#}$ | Moving air | 10 | 60 | 90 | 125 | 200 | 200 | 250 |
| | Still air | 5 | 30 | 40 | 50 | 55 | 65 | 70 |

a) Using a suitable scale draw on the same axes graphs of stomatal transpiration in moving air and still air against stomatal aperture. (8 Marks)

b) What was the transpiration rate when stomatal aperture is 12.5mm in:

    i. Moving air (1 Mark)

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    ii. Still air (1 Mark)

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c) Account for the differences between stomatal transpiration in still air and moving air. (3 Marks)

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d) Describe the relationship between stomatal transpiration and aperture diameter in still air.

(2 Marks)

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e) State **THREE** other environmental factors that affect stomatal transpiration rate. (3 Marks)

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f) State the significance of transpiration in plants. (2 Marks)

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7. a) Describe the process of fertilization in a flowering plant. (15 Marks)
   b) State the changes that take place in a flower after fertilization. (5 Marks)

8. Describe how the mammalian skin is adapted to its function. (20 Marks)

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**END**

231/1
BIOLOGY
PAPER 1
MARCH 2019
TIME: 2 HOURS

# HAWK 1 EXAMINATIONS 2019
# BIOLOGY PAPER 1
*Kenya Certificate of Secondary Education (K.C.S.E.)*

## INSTRUCTIONS TO CANDIDATES:

- *Write **your name, School** and **Index Number** in the spaces provided.*
- *Answer **all** the questions*
- *Candidates should check the question paper to ascertain that no questions are missing.*

*For Examiner's Use Only:*

| QUESTION | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MARKS | | | | | | | | | | | | | | |

| QUESTION | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MARKS | | | | | | | | | | | | | |

TOTAL MARKS

What is biotechnology? (1mk)

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2. State the use of the following apparatus used during specimen collection.(2mks)

(i)Pitfall trap

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(ii)Sweep net

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3. State the organelles that perform the following functions: (3mks)

(i)Synthesis of ribosomes

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(ii)Transport of lipids

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(iii)Package and transport of glycoproteins.

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4. The following reaction may occur in a forward and backward direction.

Water + Carbon (IV) oxide $\rightleftharpoons$ Glucose + Oxygen + Energy.
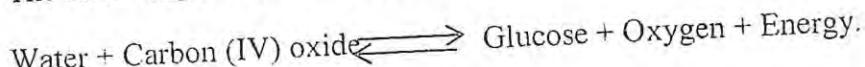
Name the organelle where the reaction occurs in; (2mks)

(i)Forward reaction

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(ii)Backward reaction

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5. Name two structures of gaseous exchange in aquatic plants. (2mks)

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6. During a strenuous exercise, the chemical process represented by the equation below takes place in human muscles.

$$C_6H_{12}O_6 \longrightarrow 2CH_3CH(OH)COOH + 150Kj$$

*Glucose*         *Substance x*
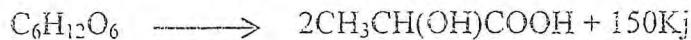
(a) What is the name of this process? ................................................. (1mk)

(b) Name substance X ............................................................. (1mk)

(c) What happens to the muscles if x accumulate to high levels? (1mk)

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7. Name the plant excretory products used to perform the following; (3mks)

(i) Making meat soft.

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(b) Inhibit formation of spindle fibres during cell division.

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8. (a) Name the structure in the body that detect changes in internal temperature. (1mk)
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(b) State two physiological changes that occur in human body when internal temperature tends to drop below normal. (2mks)

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9. Name the hormones responsible for the regulation of blood sugar level in humans. (2mks)

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10. The diagram below represents a fern.
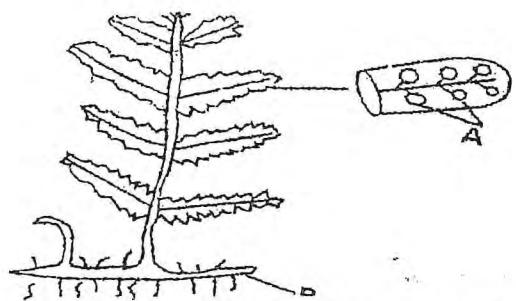
(a)Name parts labeled A and B. (2mks)

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(b)To which division does the plant belong? (1mk)

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(c)Name the spore producing structures in Bryophyta. (1mk)

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11. The diagram shows an epidermal cell undergoing mitotic cell division.
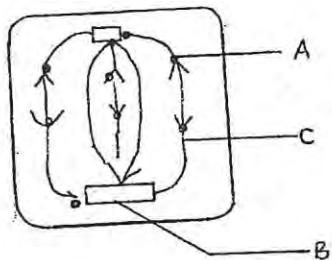


(i)Name the stage represented above. (1mk)

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(b)Name the structures A and C (2mks)

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12. The graph shows a growth curve of insects. Study it and answer the questions that follow;
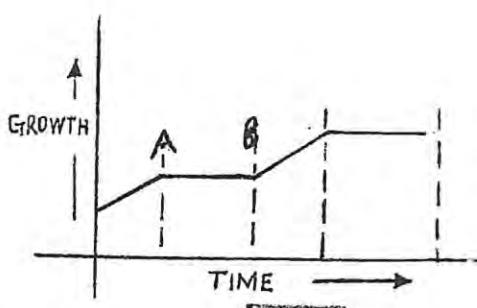
(a)State one feature that is responsible for the pattern of growth shown by insects. (1mk)

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(b)How do insects overcome the limitation so that growth occurs after all?(1mk)

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(c)Name the hormone that is active between point A and B.                    (1mk)

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13.    (a)Describe two differences between DNA and RNA.                    (2mks)

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(b)Describe the possible outcomes when using setting in determining the unknown
genotype of a phenotypically tall plants.                    (2mks)

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14.    A response exhibited by a certain plant tendril is illustrated below.
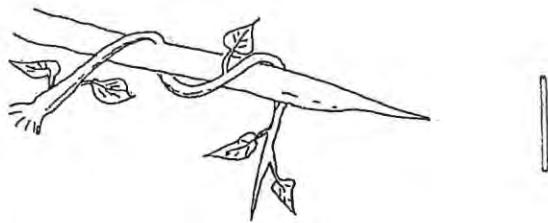


(a)Name the type of response

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(b)Name the plant hormone responsible for the above response.                    (1mk)

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15.    (a)Define the term apical meristems .                                        (1mk)

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       (b)State three characteristics of meristematic.                             (3mks)

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16.    State two roles of cervix during pregnancy.                                 (2mks)

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17.    The scrotal sac of a dog is not covered with fur unlike the rest of the body.  Explain this
       observation.                                                                (2mks)

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18.    How do the following inhibit self pollination?

       (i)Heterostyly

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       (ii)Protandry

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19.    The Kenya Medical research Institute researchers caught 400 mosquitoes which they
       marked and released.  After 24 hours, 200 mosquitoes were caught out of which 80 had
       marks.

(a)Which method of population estimation was in use? (1mk)

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(b)Estimate the population size of the mosquitoes in the village. (2mks)

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20. Distinguish between interspecific and intraspecific competition. (1mk)

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21. The figure below illustrates a mammalian nephron. Study it and use it to answer the questions that follow.
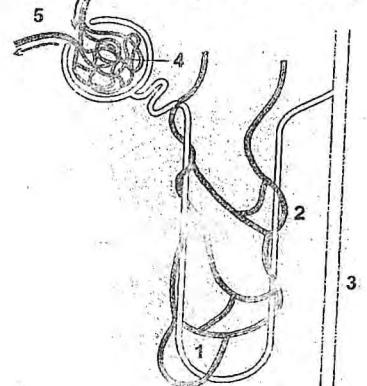


(a)Explain what would happen to the concentration of sodium ions between 1 and 2. (1m

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(b)What would happen to the functioning of portion 3 in the absence of antidiuretic hormone? (1mk)

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(c)What would happen at point 4 if there was partial constriction at point 5?(1mk)

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22.   (a)Name the structures used for gaseous exchange in;   (2mks)

(i)Mosquito pupa

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(ii)Mayfly nymph

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(b)State the function of plastron in aquatic insects.   (1mk)

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23.   The diagram below shows the structure of phloem tissue.  Study it and answer questions that follow.
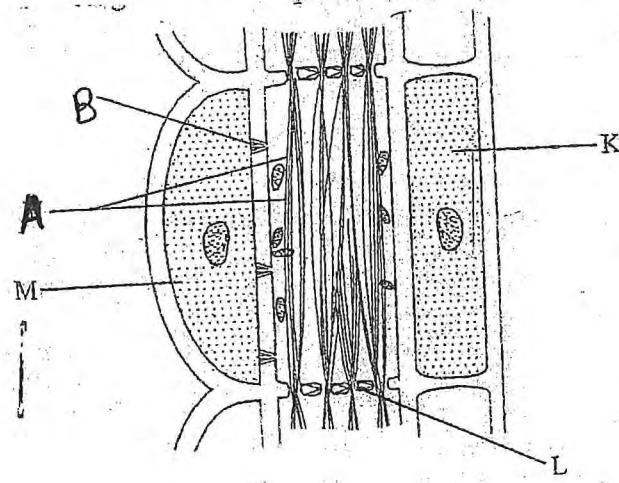


(a)Identify the parts labeled A and B.   (2mks)

A: ..........................................................................................

B: ..........................................................................................

(b)Give the functions of parts marked.   (2mks)

M: ...................................................................................................................................

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L: ...................................................................................................................................

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24. State the importance of the following features in gaseous exchange. (2mks)

(a)Absence of rings of cartilage in the tracheoles.

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(b)Presence of rings of cartilage in the walls of bronchus.

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25. Briefly describe how the following affect the rate of diffusion: (4mks)

(a)Thin membrane

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(b)High temperature

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26. Give an explanation for each of the following care and handling of light microscope.(3mk

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(b)Dirty lenses should be cleared using a special soft lens tissue.

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(c)Never place the microscope too close to the edge of the working bench

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27. A doctor while performing an operation cuts two blood vessels by mistake. He noticed that in blood vessel A blood spurts out while in B blood flows out steadily. Identify with a reason the blood vessel. (4mks)

A:...........................................................................................

Reason:...........................................................................................................

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B:...................................................................................................

Reason:...........................................................................................................

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NAME: ………………………………………..…………………STREAM: …………………

INDEX NO.   …………..……………SCHOOL: ……………...……….ADM. NO: ……………..

232/3
PHYSICS
PAPER 3
PRACTICAL ·
MARCH 2019

SOARING HIGH

TIME: $2\frac{1}{2}$ HOURS

# HAWK I CLUSTER EXAMINATIONS 2019

*Kenya Certificate of Secondary Education*

## INSTRUCTIONS TO CANDIDATES
o   Write **your name, index number** and **school** in the spaces provided
o   Answer **ALL** the questions in the spaces provided in the question paper.
o   You are supposed to spend the first 15 minutes of the $2\frac{1}{4}$ hours allowed for this paper
    reading the whole paper carefully before commencing your work.
o   Marks are given for clear record of observations made, their suitability, accuracy and the use
    made of them.
o   **Non-programmable** silent electronic calculators and KNEC mathematical table may be
    used.
o   This paper consists of 6 printed pages. Candidates should check to ensure that all pages are
    printed as indicated and no questions are missing

## FOR EXAMINER'S USE ONLY

| QUESTION | MAXIMUM SCORE | CANDIDATES SCORE |
|----------|---------------|------------------|
| 1        | 20            |                  |
| 2        | 20            |                  |
| TOTAL    | 40            |                  |

1. You are provided with the following apparatus:
   ✓ A metre rule
   ✓ A 250 ml plastic beaker
   ✓ 4 pieces of cotton thread each 30cm long
   ✓ A piece of cellotape
   ✓ 100ml measuring cylinder
   ✓ Complete stand
   ✓ A 50g mass
   ✓ Water in a beaker

## PART A
## Proceed

(a) Suspend the metre rule using the thread and ensure it balances horizontally (the point of balance should remain unchanged throughout the experiment.

(b) Suspend the empty plastic beaker at the 10cm mark and hang the 50g mass on the other side of the metre rule. Move the 50g mass along the metre rule until the set-up balances horizontally as shown in the figure below.

**Figure 1**
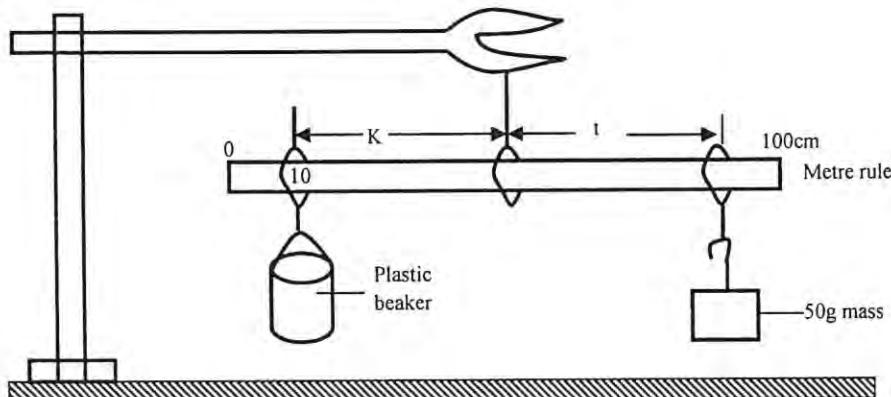


(c) - Record the distances K and t                                    (1 mark)

   K _____ cm


   t _____ cm

   (Use the cellotape to fix the position of 50g mass)

   - The 50g mass should remain at this position throughout the experiment.

(d) Using the measuring cylinder, measure 20cm³ of water and pour it into the pastic beaker. Adjust the position of the beaker until the metre rule balances horizontally again. Record the distance K in table 1 below.

(e) Repeat the procedure (d) above for the other value of V shown. (4 Marks)

| Volume, V (cm³) | 0 | 20 | 40 | 60 | 80 | 100 | 120 |
|---|---|---|---|---|---|---|---|
| Distance, K (cm) | | | | | | | |
| $\frac{1}{k}$ (cm⁻¹) | | | | | | | |

(f) Plot a graph of volume, V (y – axis) against $\frac{1}{k}$ (5 Marks)
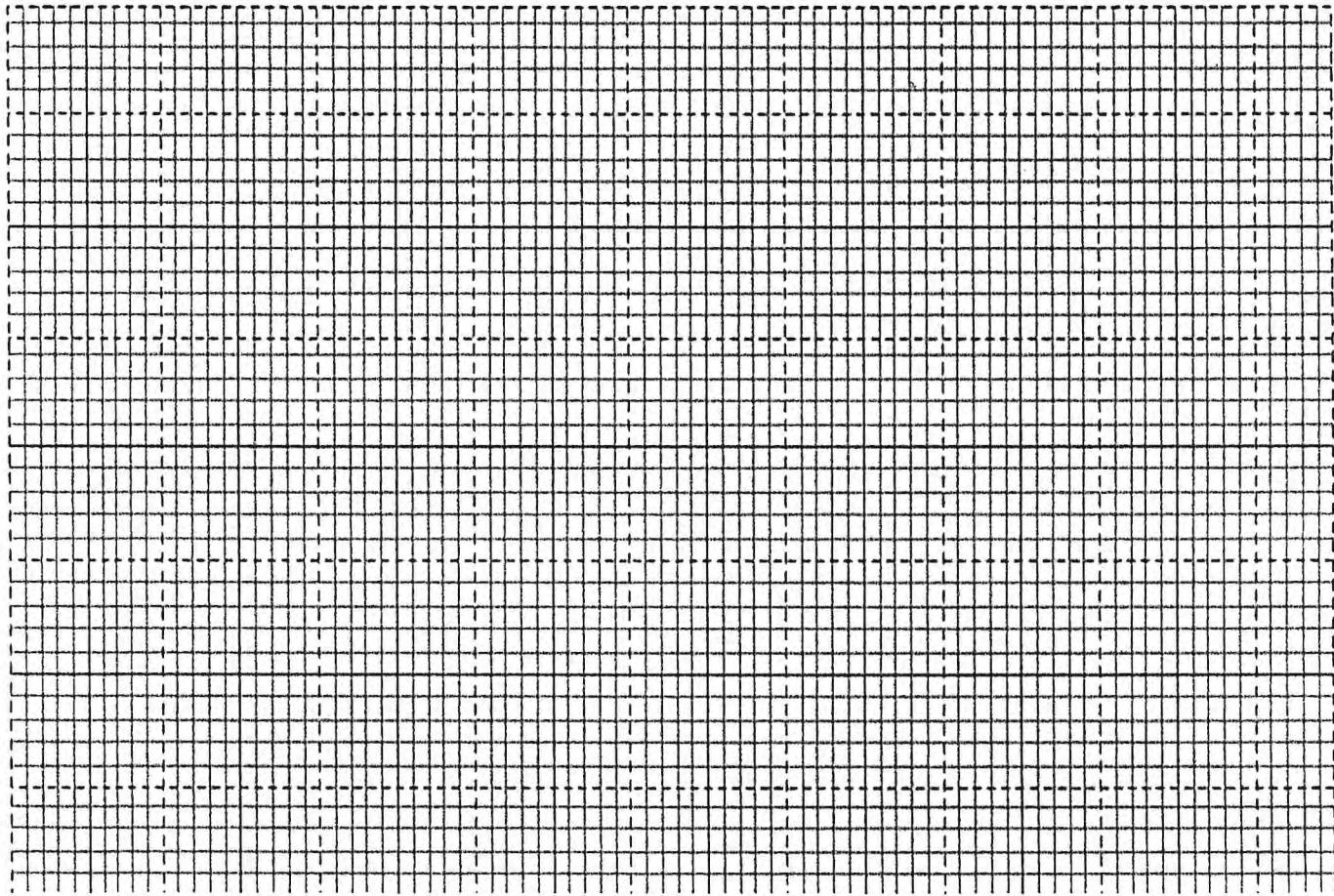
(g) Determine the slope, S, of the graph. (2 Marks)

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(h) Given that $V = 1000 \left(\dfrac{50t}{dk}\right) - \dfrac{1000m}{d}$ . Use your graph to determine the values of

(i) d =                                                      (2 marks)

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(ii) m =                                                    (1 mark)

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**PART B**

       You are provided with the following:
- A cotton thread (about ½m long)
- A 200ml beaker.
- A thermometer.
- A complete retort stand.
- 100ml measuring cylinder.
- A calorimeter with a stirrer.
- Some water.
- A heat source
- A 100g mass
- A balance

Proceed as follows:

a) Fill the 200ml beaker to about half its volume with water. Clamp the thermometer and lower it into the water, ensuring that its bulb does not touch the base or sides of the beaker. Tie the 100 g mass with the thread securely and greatly lower it into the water as shown below;

b)     Weigh the mass of the empty calorimeter and record it.

Mass (MC) = ..................................... g (½ mark)

c)     Measure 90 ml of water and gently transfer it into the calori meter. Measure and record the temperature of the water in the cal orimeter.

q1 = ...........................°C (½ mark)

d)     Determine the mass of water in the calorimeter by weighing both the water and the calorimeter.

M$_w$ = ...................................g    (1 mark)

e)     When the water with the 100g mass has started to boiling no te and record the temperature qS of the solid.

qs = ...........................°C   (1/2 marks)

f)     Quickly transfer the hot solid into the water in the calorime ter and cover it. Ensure that the calorimeter is well lagged. Stir gently and note the final steady temperature of the mixture.

q2 = ...........................°C      (½ m ark)

g)     Given that $M_SC_S() = (M_CC_C + M_WC_W)$    Where:

MS = mass of the solid.
MC = mass of the calorimeter
MW = mass of water in the calorimeter
CW = specific heat capacity of water = 4200j/kg/k
CC = specific heat capacity of the calorimeter = 400j/kg
Find the value of Cs the specific heat capacity of the solid.
(2 marks)

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## 2. PART A

You are provided with the following:-
- ✓ Candle
- ✓ Plane mirror
- ✓ Metre rule
- ✓ Lens
- ✓ Lense holder
- ✓ A cardboard with cross-wire at its centre
- ✓ Screen

**Proceed as follows:**

(a) Attach the plane mirror to the lens using cellotape.

(b) Set up the apparatus as shown below.
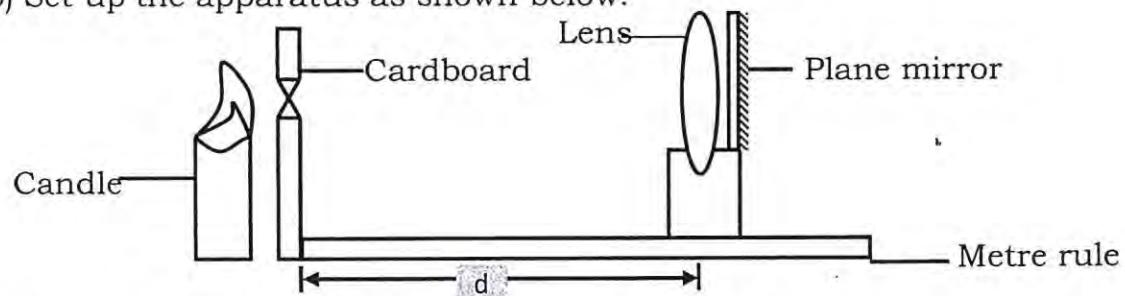


Ensure that the candle flame is at the same level as the cross wires.

(c) Place the cardboard with cross wires at the 0cm mark.

(d) Move the lens along the metre rule until a sharp image of the cross-wire is formed alongside the object cross wire. Measure the length d.

d=_____cm                                          (1 Mark)

Now set up the apparatus as shown below.
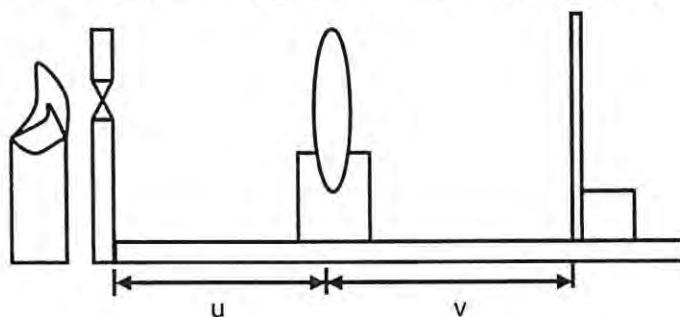


(e) Set u = 25cm and adjust the screen until a clear image of the cross wire appears on the screen.

Measure the value of v and record in the table.

(f) Repeat the procedure (e) above for other values of u and complete the table below.                                                     (5marks)

| u (cm) | 25 | 30 | 35 | 40 | 50 |
|---|---|---|---|---|---|
| v (cm) | | | | | |
| $m = \dfrac{v}{u}$ | | | | | |

(g) Plot a graph of m against v                                    (5 Marks)
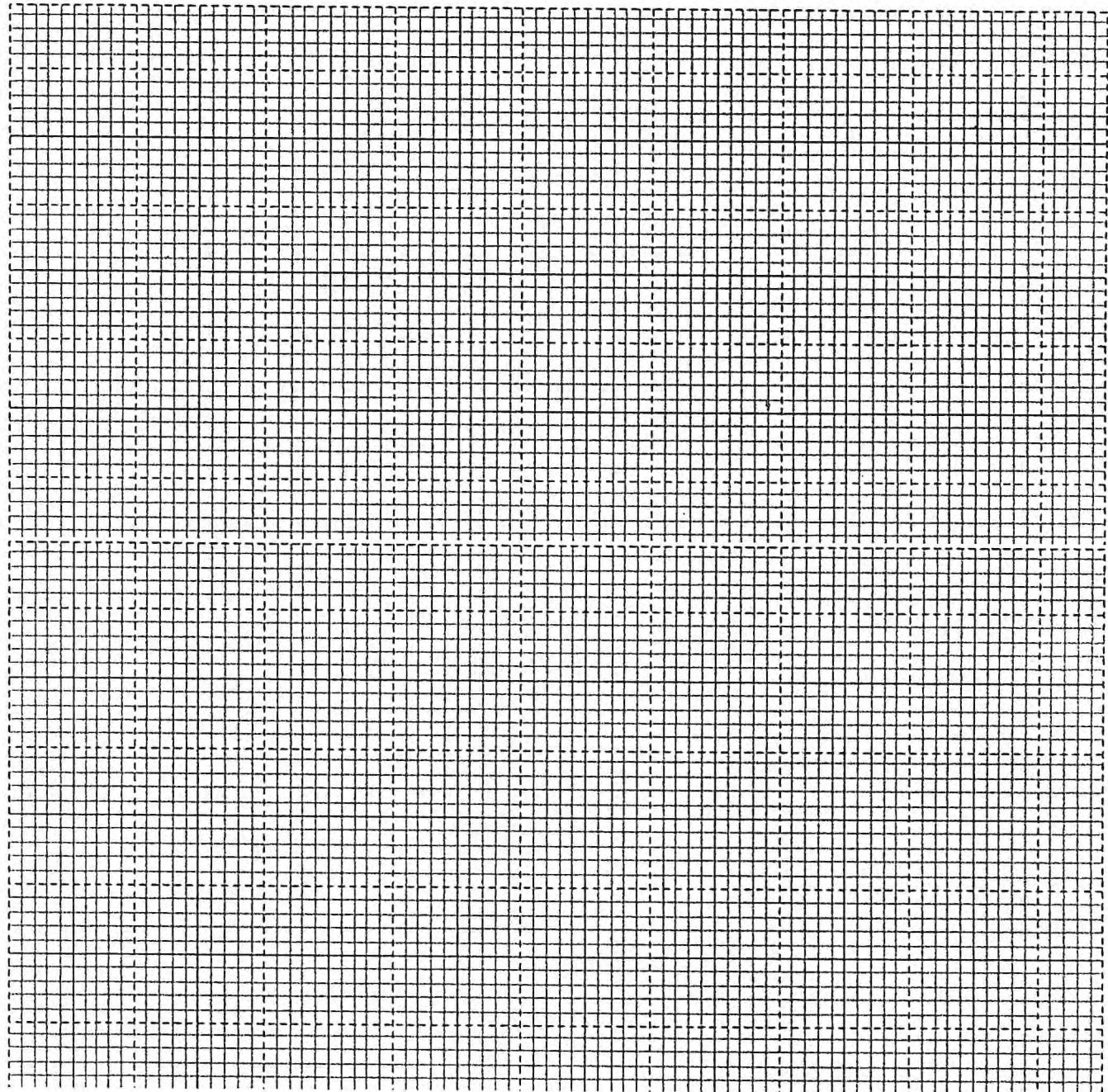
(h) Determine the slopes of the graph                              (3 Marks)

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(a) Given that the equation of the graph is given by m= $\frac{v}{n}$ − 1 where n is a constant, determine the value of n. (2 Marks)

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(b) Find the value of v when m = 0 (1 Mark)

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(c)What physical quality does n represent? (1 Mark)

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## PART B

You are provided with the following apparatus.

- Two dry cells.
- Nichrome wire 100cm on a mm scale.
- An ammeter.
- Cell holder.
- Voltmeter.
- Connecting wires with crocodile clips.
- Switch.

Proceed as follows;

a) Connect the circuit as shown in the diagram.
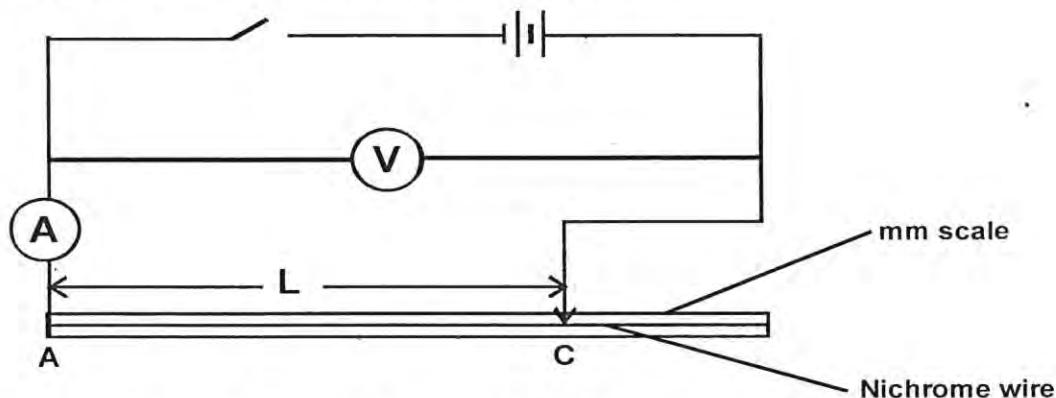


b) Connect the ends A and C where AC is the length·L of the Nichrome wire across the terminals as shown. Close the switch and measure both current I and potential difference (P. d) across the wire AC when L = 100cm.

Current I = ……………………………………                                    (1 mark)

P. d, V = ……………………………………                                      (1 mark)

c) Measure the E. m. f of the cells, E.

E = ……………………………………                                           (1 mark)

d) Given that E=V + I r,determine the internal resistance,r, of each cell.

                                                                          (2 marks)

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Name.............................................................................. Index. No................

School ........................................................................... Date.....................

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**232/2**
**PHYSICS**
PAPER 2
MARCH 2019
**Time: 2 Hours**

**HAWK EXAMINATIONS 2019**
*Kenya Certificate of Secondary Education(K.C.S.E)*

*INSTRUCTIONS TO THE CANDIDATES:*
- *Write your **name** and **index number** in the spaces provided above*
- *This paper consists of **two** sections A and **B**.*
- *Answer **all** questions in section A and **B** in the spaces provided.*
- *All working **must** be clearly shown in the spaces provided.*
- *Mathematical tables and electronic calculators may be used.*
- *Take 'g'= 10m/s²*

**For Examiners' Use Only**

| SECTION | QUESTION | MAXIMUM SCORE | CANDIDATE'S SCORE |
|---------|----------|---------------|-------------------|
| A       | 1 - 10   | 25            |                   |
| B       | 11       | 14            |                   |
|         | 12       | 13            |                   |
|         | 13       | 12            |                   |
|         | 14       | 11            |                   |
|         | 15       | 5             |                   |
| TOTAL   |          | 80            |                   |

*This paper consists of 12 Printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.*

## SECTION A (25 MARKS)

*Answer ALL the questions in this section in the spaces provided*

1. The **figure1** below shows two mirrors $M_1$ and $M_2$ placed at an angle of $80^0$. A ray of light incident to the mirror makes an angle of $45^0$ with the mirror $M_1$
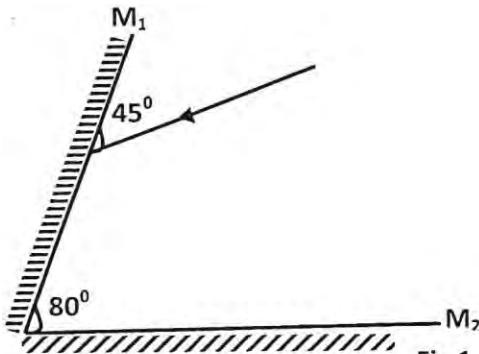


Fig 1

Find the angle the ray turns after reflection in the two mirrors                (3marks)

2. I) Define electric current and state its SI unit                (2marks)

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ii) A current of 3A flows in a circuit for 2 minutes. Calculate the charge flowing in the circuit.                (2marks)

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3. The figure below shows two magnets being used to strike a steel bar.



Steel bar
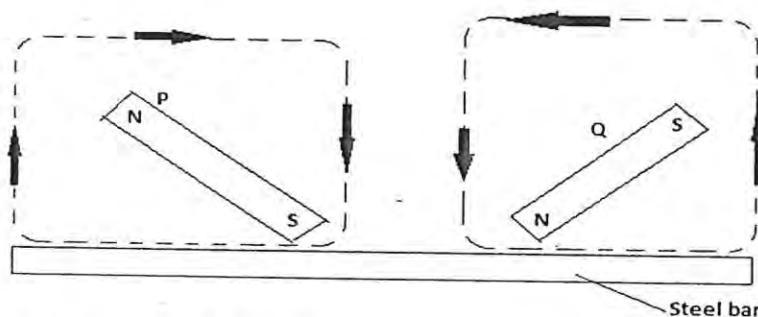
Identify the method of making magnets represented by the diagram.

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4. The figure below shows the variation in displacement and time for a progressive wave travelling at 200cms$^{-1}$. Study the diagram and answer the questions that follow.
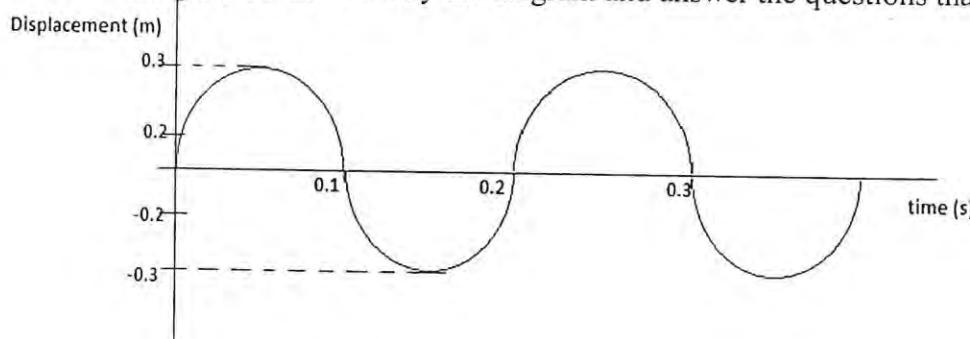


a. Determine the frequency of the wave                                         (2marks)

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b. Determine the wavelength of the wave                                         (2marks)

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5. Gamma, radio, infrared, x-rays are part of the electromagnetic spectrum.

   i) Arrange these radiations in order of increasing energy                     (1mk)

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   ii) State how radio waves are detected                                        (1mk)

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6. A pinhole camera forms an image of size 10cm. The object is 5m tall and 20m away from the pinhole. Find the length of the pinhole camera.                (2marks)

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7. Sketch the resultant field pattern around the following current carrying conductors and show the direction of the forces acting on the conductor                (2marks)

   

8. State two conditions for total internal reflection in a triangular glass prism.   (2marks)

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9. A dry cloth is used to dust a glass table. It is observed that as the glass is wiped the dust is retained on it explain.                                        (2marks)

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10. A light bulb is found to have a resistance of 45 ohms when operating normally on 220volts mains. Find:

    i.    The power rating of the bulb                    (2marks)

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    ii.    The value of the most suitable fuse for the bulb         (2marks)

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*Answer ALL the questions in this section in the spaces provided.*

11. Figure below shows a narrow beam of white light onto a glass prism.
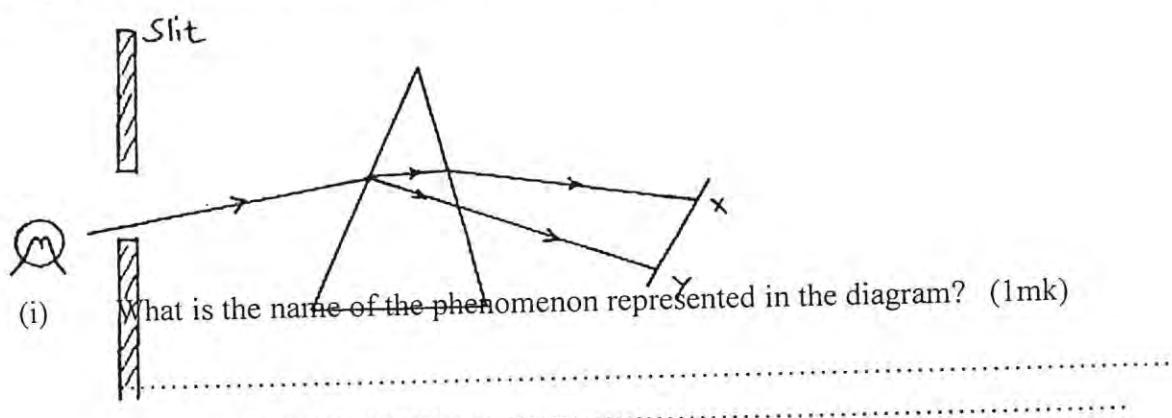


(i)     What is the name of the phenomenon represented in the diagram?   (1mk)

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(ii)    Name the colour at **X** and **Y**.  Give a reason.                    (3mks)

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(iii)   What is the purpose of the slit?                                   (1mk)

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(b)     Figure 8 below shows the path of ray of yellow light through a glass prism.
        The speed of yellow light in the prism is $1.8 \times 10^8$ m/s.
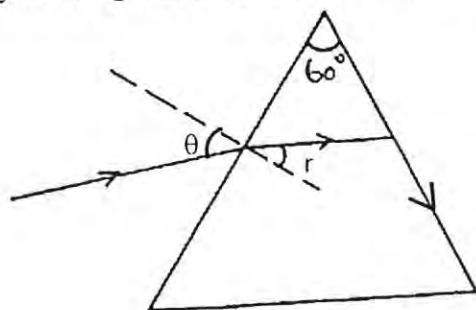
(i)    Determine the refractive index of the prism material (speed of light in vacuum C = 3.0 x $10^8$m/s).    (3mks)

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(ii)Show on the same diagram, the critical angle, c, and hence determine its value. (3mks)

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(iii)Given that r = 31.2°, determine the angle θ.    (3mks)

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12. (a) state Ohms law    (1mark)

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(b) the figure below shows three resistors of values 2 Ω,3 Ω and 1 Ω connected in a circuit of 4volts
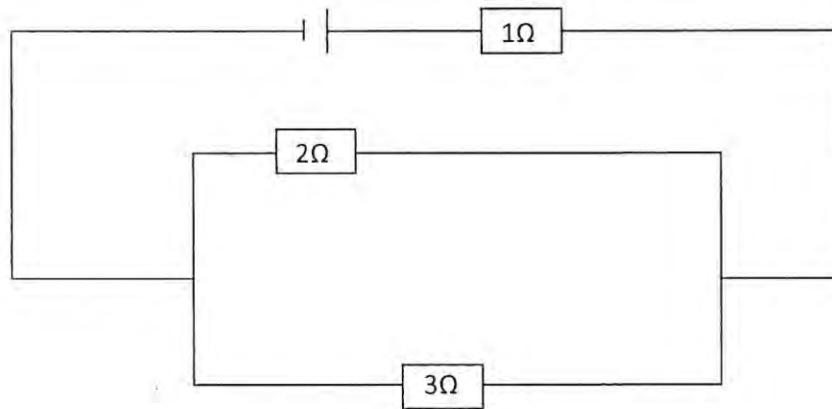
. ; Determine:
  i) Effective resistance in the circuit (3marks)

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  ii) The current through the 1 Ω resistor (2marks)

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  The current through the 3 Ω resistor (2marks)

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(b) State three factors affecting capacitance of a parallel plate capacitor. (3mks)

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(c) The graph below shows the relationship between the voltage drop across a certain capacitor
and the charge stored in the capacitor.
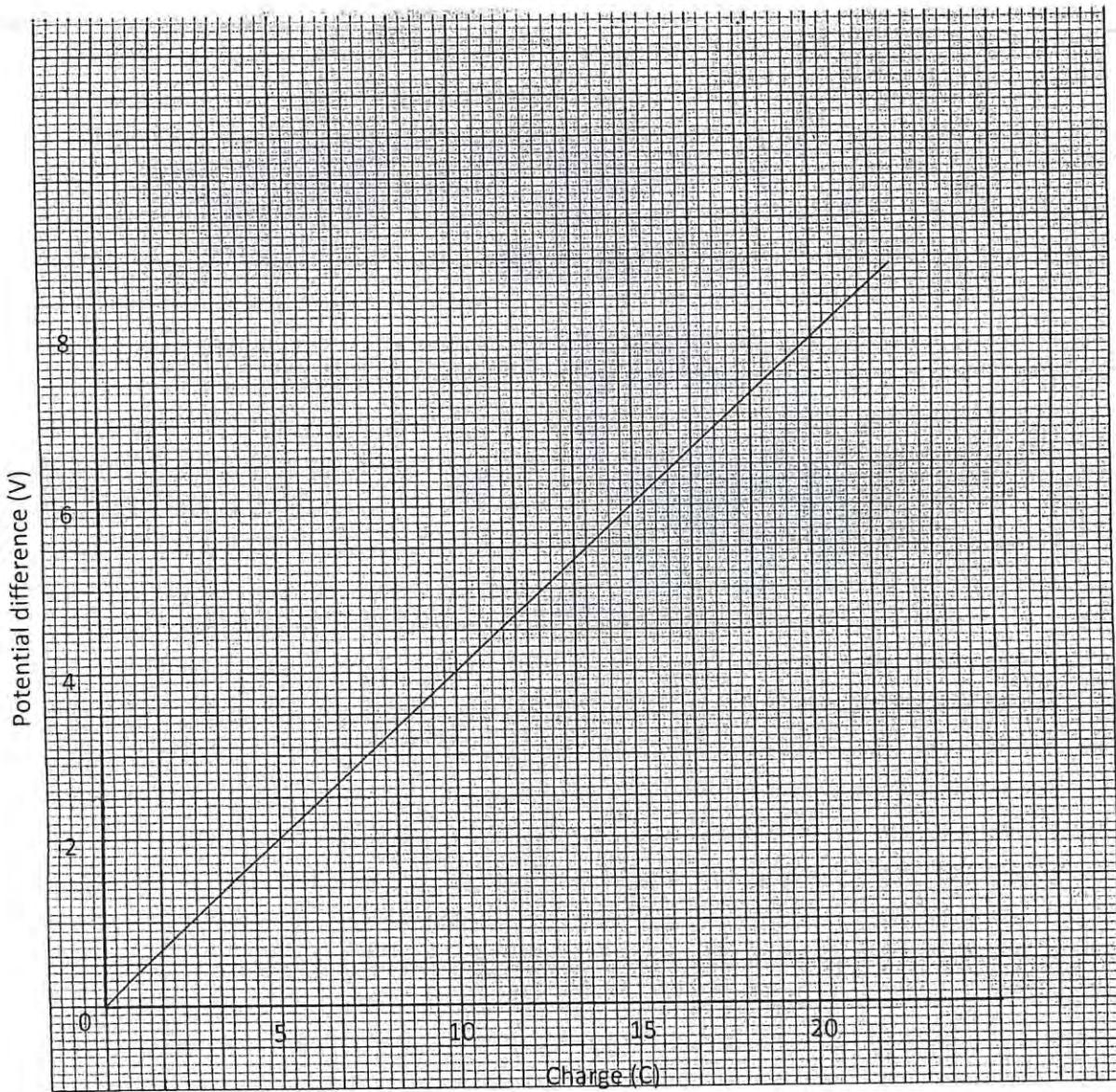
From the graph calculate the capacitance of the capacitor. (3mks)

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13. a) Two vertical cliffs are x distance apart. A mine-worker stands between the two vertical cliffs, 400m from the nearest cliff. Every time he strikes the rock once, he hears two echoes; the first one after 2.5s, while the second follows 2s later. From this information, calculate:

   i.    The speed of sound in the mine                                    (2marks)

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   ii.   The value of x                                                    (2marks)

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   b) i. define diffraction with respect to waves                         (1mark)

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   c) in the diagram below the size of the aperture at the barrier is 10cm while the distance between two consecutive wave fronts is 3cm. if the waves are moving towards the barrier, draw the wave fronts as they appear after passing through the aperture. (2marks)

wavefront

aperture
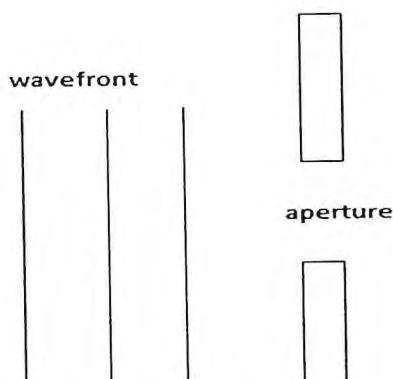
   d) the figure below shows a person moving along the path XY. Study it and answer the questions that follow.

   X
   A
   B
   A
   O
   B
   A
   B
   Y
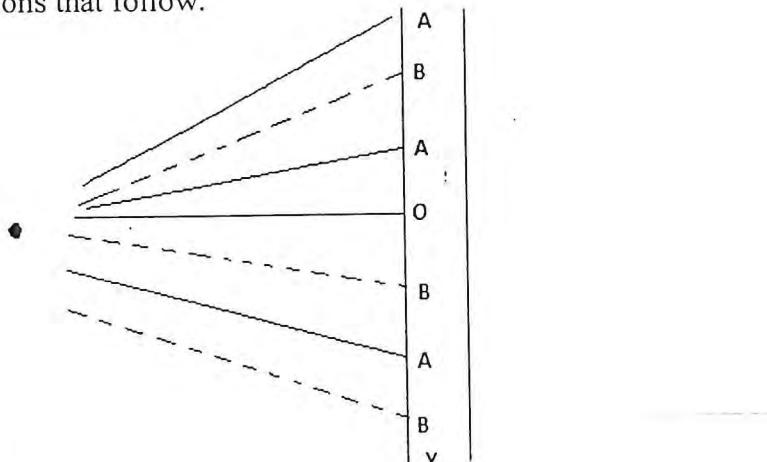
i. Explain what the person moving along XY observed (3marks)

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ii. If the person moved continuously from the source to point O, explain what he might observed (2marks)

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14. a) Define power of a lens and give its units (2mks)

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b) An object whose height is 24cm is placed 20cm in front of a diverging lens of focal length 20cm.

Determine the image distance (3mks)

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c) the figure below shows human eye with a defect.
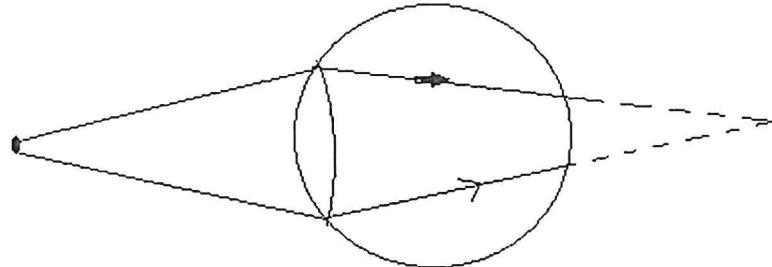


i. Identify the defect (1mark)

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ii. Explain how the defect could be corrected (2marks)

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iii. Draw a suitable diagram to show how the defect can be corrected (1 mark)

iv. Outline two differences between the lens in camera and human eye (2marks)

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15. The following are electromagnetic waves and some of their characteristics.

A - Have high penetrating power

-Used to sterilize medical equipments

- Used to detect flaws in metals in industry

B - Causes heating effect

-Used in cooking, heating and drying

-Used in heat seeking missiles

C -High penetrating power

-Used to locate bone fractures

- Used to control germs and pests

a) Identify the waves (2marks)

B- .........................................

C- .........................................

b) Arrange the waves in order of increasing frequency (1mark)

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c) An X-ray machine produces radiation of wavelength $1.0 \times 10^{-11}$ m. calculate;
The energy of the X-ray produced. (2marks)

Name.................................................................... Index. No...............

School ........................................................... Date.....................

Sign ...........................................................................

232/1
PHYSICS
PAPER 1
MARCH 2019
Time: 2 Hours

**HAWK EXAMINATIONS 2019**
*Kenya Certificate of Secondary Education(K.C.S.E)*

### INSTRUCTIONS TO THE CANDIDATES:
- Write your **name** and **index number** in the spaces provided above
- This paper consists of **two** sections A and **B.**
- Answer **all** questions in section **A** and **B** in the spaces provided.
- All working **must** be clearly shown in the spaces provided.
- Mathematical tables and electronic calculators may be used.
- Take 'g'= $10m/s^2$

### For Examiners' Use Only

| SECTION | QUESTION | MAXIMUM SCORE | CANDIDATE'S SCORE |
|---------|----------|---------------|-------------------|
| A | 1 - 13 | 25 | |
| B | 14 | 12 | |
| | 15 | 08 | |
| | 16 | 12 | |
| | 17 | 11 | |
| | 18 | 12 | |
| TOTAL | | 80 | |

*This paper consists of 12 Printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.*

1. The figure below shows a wire wound closely on a test-tube. Given that L=12mm, determine the thickness of the . . test-tube (2marks)
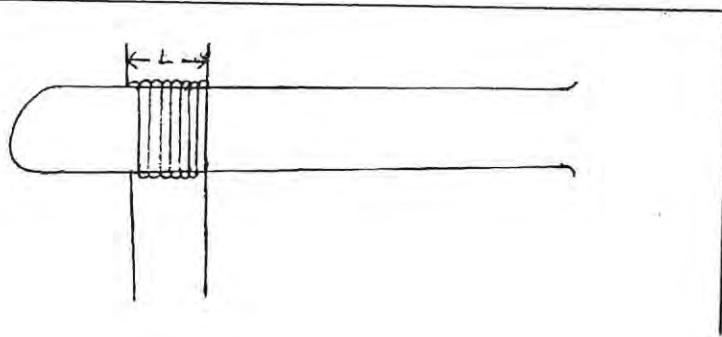


2. Atomic physics is a branch of physics. State what it deals with. (1mark)
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3. A plank of negligible weight is kept in a horizontal position by the forces shown in the diagram below.
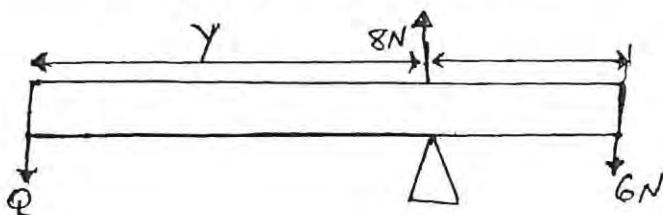


i. Calculate the magnitude of force Q (1mark)
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ii. Calculate the value of Y. (2marks)
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4.  Which of the points A and B in the figure below will experience the greatest pressure given that the height of the liquid in the two containers is the same. Explain          (2marks)



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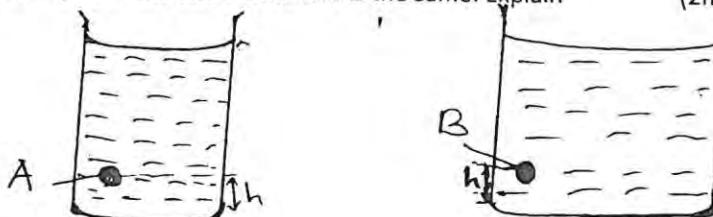
5.  A single spring stretches by 2.0 cm when supporting a load of 50N. If in the system below the springs are identical and have negligible weight;
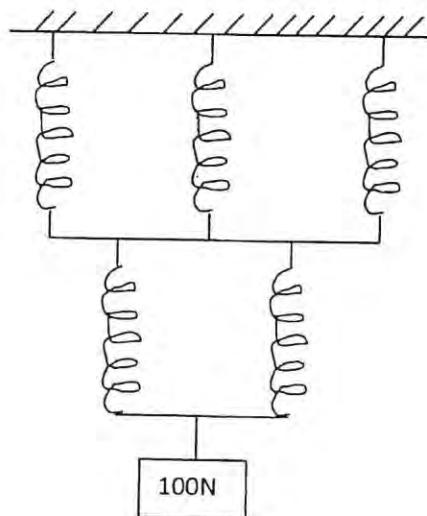


Find:

a) The total extension of the system.          (2mks)

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6.  The stability of a body can be increased by increasing the area of the base and lowering its centre of gravity. State one way of lowering its centre of gravity.          (1mark)

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7.  i) define a vector quantity          (1mark)

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ii) which of the following quantities are vectors: mass, weight, power, time, density and velocity. (2marks)

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8. The figure below shows two light sheets of paper arranged as shown.
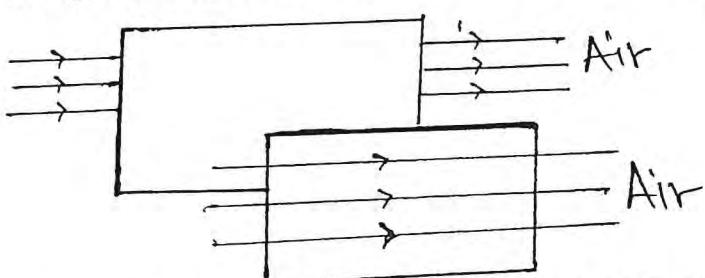


State and explain what is observed if strong air is blown at the same time behind paper Q and infront of paper R as shown. (2marks)

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9. The figure below shows a set-up of apparatus used to investigate the behavior of gases
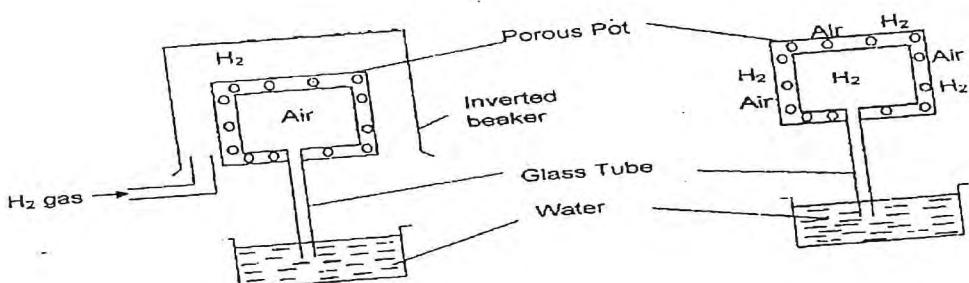


Fig 6(a)                                              Fig 6(b)

Bubbles of gas form in water at the lower end of the glass tube in figure 6(a) while water is observed to rise up the glass tube in figure 6(b). Explain these observations. (2marks)

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10. (a) A glass capillary contains enclosed air by a thread of mercury 15cm long when the tube is horizontal, the length of the enclosed air column 24cm as shown.



24cm                    15cm
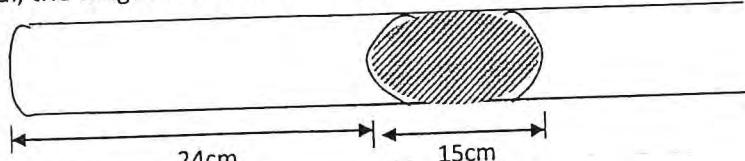
b) Explain why an air bubble increase in volume as it rises from the bottom of a lake to the surface. (1mark)

c) When an inflated balloon is placed in a refrigerator it is noted that its volume reduces, use the kinetic theory of gases to explain this observation. (1mark)

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11. The figure below shows a displacement time graph for some motion.
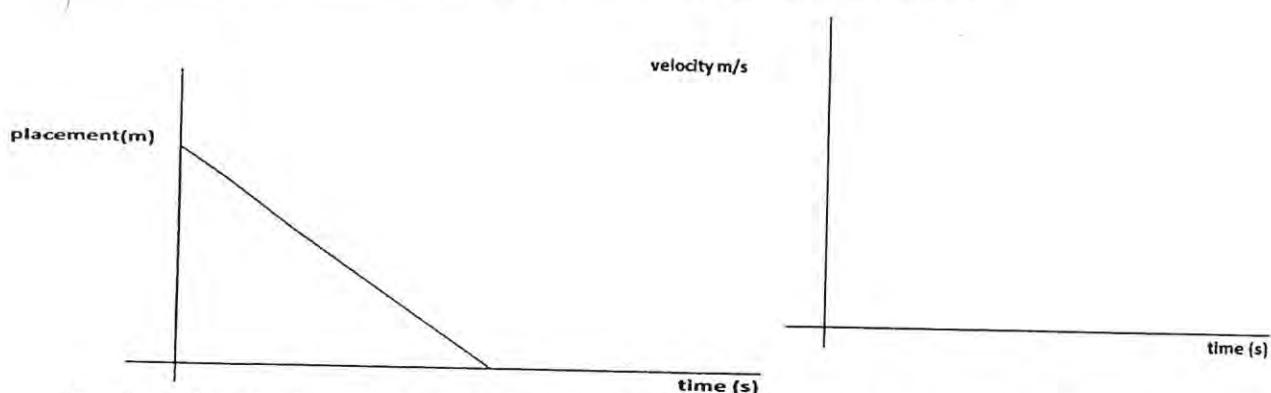


Sketch on the axis given a velocity – time graph for the same motion. (1mark)

12. In an experiment to determine the thickness of an oil molecule, an oil drop of volume $3.60 \times 10^{-6}$ m$^3$ was observed to form a circular patch of diameter 0.016m on the surface of water covered with lycopodium powder

i). Explain why the oil drop forms a circular patch. (1mks)

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ii) Determine the thickness of the oil molecule (2mks)

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13. A round bottomed flask is filled with coloured water as shown in the diagram below.
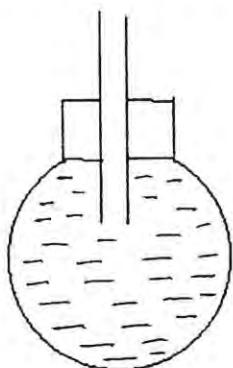


When the flask is placed in ice cold water, state and explain the observation. (2marks)

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SECTION B (55MARKS)

*Answer all questions in the spaces provided.*

14.    A stone of mass 450g is rotated in a vertical circle at 3 revolutions per second. If the string has a length of 1.5m, determine:
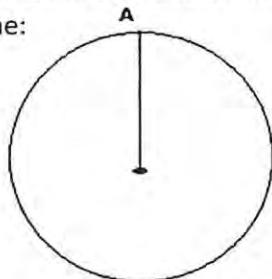


i.    The linear velocity                                    (3marks)

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ii.    The tension of the string at positions A and B                    (4marks)

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b. the diagram below shows a spring tied to an object of mass M and made to rotate in a circular path of radius r.
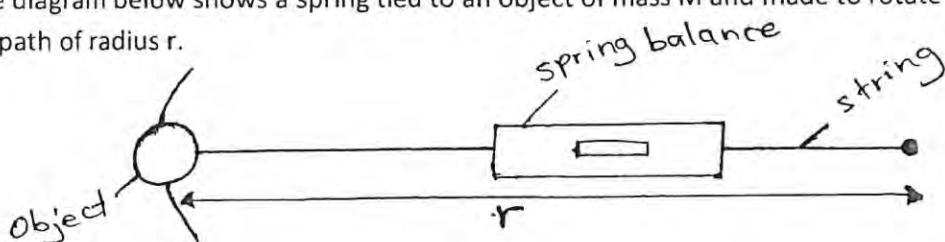


i.    What provides the force that keeps the object moving in the circle?  (1mark)

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ii.    The speed of the object is constant, why is there acceleration.        (2marks)

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iii.    Although there is a force acting on the object, no work is done on the object. Explain.
                                (2marks)

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15.    a) A certain substance contracts when heated at a certain temperature and expands when cooled at the same temperature.

i.     Name the substance                                                              (1mark)

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ii.    State one disadvantage of this behavior                                    (1mark)

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b) the figure below shows four brass pins pressed on a cooking stuck until they are flat on the wood. A white gummed paper was then stuck on the wood covering the pins. The stuck was then passed over a Bunsen flame a few times
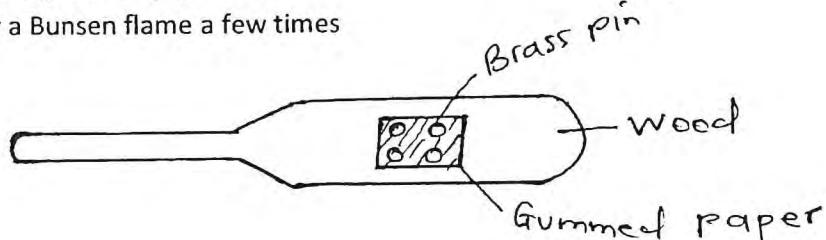


It was observed that the paper got charred leaving four white spots. Explain this observation.
                                                    (1mark)

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c) The figure below shows an experiment carried out by form one students.
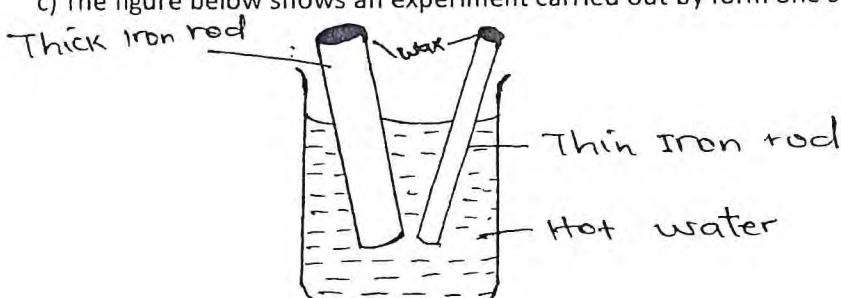


i.     The students dipped two iron rods of the same length but different thickness into the beaker of hot water at the same time. What was the experiment about          (1mark)

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ii.    State and explain the observation made after 10 minutes.               (2marks)

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iii.   If the two rods were were much longer, state and explain any difference from c(ii) above that would be made in the observation.                                    (2marks)

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16. (a) Define the term mechanical advantage of a machine.                    (1mark)

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(b) The figure below shows a pulley system being used to raise a load.
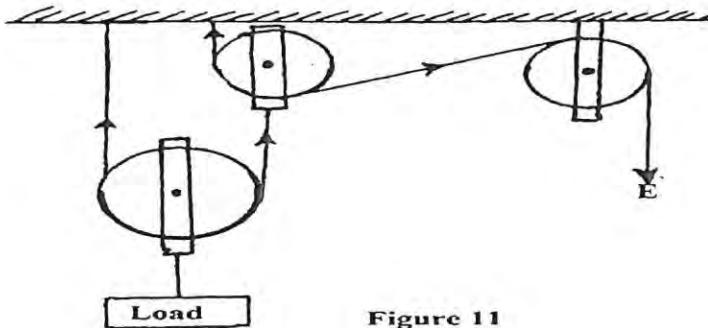


Figure 11

This pulley system has an efficiency of 75%.

(i) Determine the velocity ratio of the system.                    (1mark)

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(ii) Determine the mechanical advantage of the pulley system.                    (2marks)

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(iii) Determine the effort required to raise a load of 240kg.                    (2marks)

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(iv) Determine the work done by a person using this machine in raising a load of 120kg through a vertical distance of 2.5m                    (2marks)

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(b) i)  differentiate between elastic and inelastic collision                    (2marks)

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(c) A bullet of mass 0.008kg is fired horizontally into a block of wood of mass 0.6kg which it knocks and moves with an initial speed of 6m/s. calculate;

i) the speed of the bullet                                                    (2marks)

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ii) the kinetic energy lost in the impact                                      (2marks)

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17. A. state the Archimedes principle                                          (1mark)

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b. A rubber envelope of a hydrogen filled balloon having a volume of $2m^3$ is held in a position by a vertical string as shown below.                     Hydrogen gas
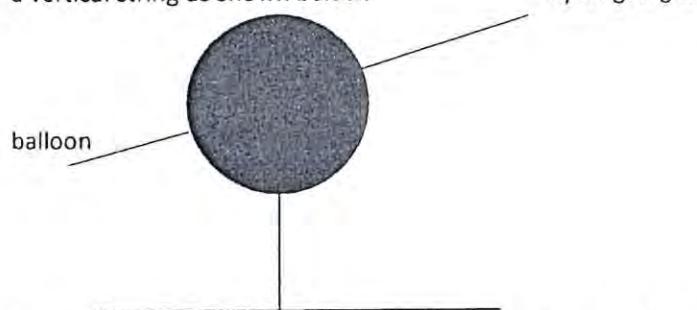


balloon

the mass of the balloon is 1.3kg. given that the density of hydrogen is $0.1kg/m^3$, density of air is $1.3kg/m^3$. Find

i.      Total weight of the balloon including the hydrogen gas.              (2marks)

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ii.     The up-thrust.                                                        (2marks)

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iii.    The tension in the string                                            (2marks)

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c. A solid weighs 50N in air and 44N when completely immersed in water. Calculate;

i. relative density of the solid                                                    (2marks)

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iii.     Density of the solid.                                                      (2marks)

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18. a. define the term latent heat.                                                 (1mark)

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b. the figure below shows a block of ice with two heavy weight lying such that the copper wire
connecting them pass over the block of ice.
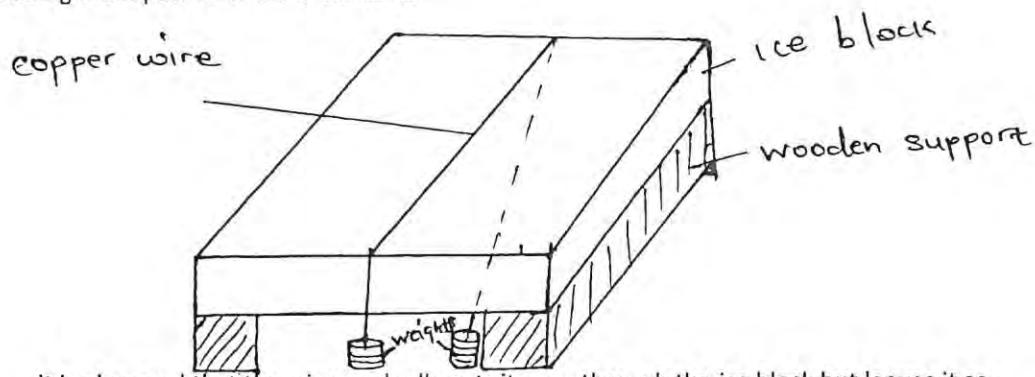


i.      it is observed that the wire gradually cuts its way through the ice block but leaves it as
        one piece. Explain.                                                         (3marks)

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ii.     what change would be observed if the copper wire used in the experiment was replaced
        by a cotton thread? Explain your answer.                                    (2marks)

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c. 3kg of hot water was added to 9kg of cold water at $10^0$c and the resulting temperature was $20^0$c. Ignoring heat gained by the container. Determine the initial temperature of hot water. (Specific heat capacity of water is 4200j/kg/k)                    (3marks)

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d. state two differences between boiling and evaporation                    (2marks).

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Name:...................................................................Adm.No................Stream....................

School: ..................

**233/1**
**CHEMISTRY**
**Paper 1**
**MARCH 2019**
**Time: 2 hours**

# HAWK 1 JOINT EXAMINATION-2019
## Kenya Certificate to Secondary Education
### CHEMISTRY PAPER 1
### TIME: 2 HOURS

**INSTRUCTIONS TO CANDIDATES**

- *Write your name, admission number, date and school in the spaces provided.*
- *Answer all the questions in the spaces provided.*
- *All working must be clearly shown where necessary.*
- *Scientific calculators may be used.*

**FOR EXAMINERS' USE ONLY**

| Questions | Maximum Score | Candidate's Score |
|-----------|---------------|-------------------|
| 1 – 26    | 80            |                   |

This paper consists of **13** printed pages. Candidates are advised to check and to make sure all pages are as indicated and no question is missing.

1. The diagram below shows a Bunsen burner when in use.
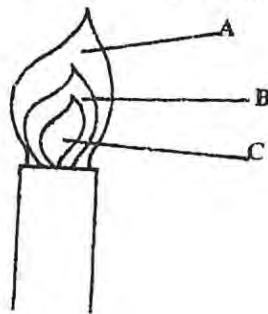


a) Which of the labelled part is used for heating? Give a reason.      (2mks)

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b) Under what condition does the above type of flame produced?   (1mk)

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2. Name the most suitable method of separation that can be used to separate the following mixtures.

a) Gasoline from Petroleum   (1mk)

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b) Benzoic acid and Potassium carbonate        (1mk)

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c) Oil from Cashew nuts        (1mk)

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3. The table below shows some properties of some elements in period 3 of the periodic table.

| Element | Sodium | Magnesium | Aluminium |
|---|---|---|---|
| Melting point  (0C) | 97.8 | 650 | 660 |
| Atomic radii (nm) | 0.152 | 0.136 | 0.125 |
|  |  |  |  |

Explain the trend of;

a) Melting points from sodium to aluminium. (2mk)

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b) Atomic size of atoms from sodium to aluminium (1mk)

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4. a) State the Graham's law. (1mk)

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c) 120 cm$^3$ of methane diffused through a porous plate in 40 seconds. How long will it take 30 cm$^3$ of hydrogen bromide gas to diffuse through the same plate under similar conditions. ( C=12, Br=80 ,H=1) (3mk)

5. a) Name the following organic compound. (1mk)
   $CH_2CHCHCH_2$

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c) Study the scheme below and use it answer the questions that follow.

$$\text{Ethene} \xrightarrow{H^+/KMnO_4} \text{Compound X}$$

$$\text{Ethene} \xrightarrow{\text{Concentrated Sulphuric(VI) acid}} Z \xrightarrow{\text{Water}} Q$$
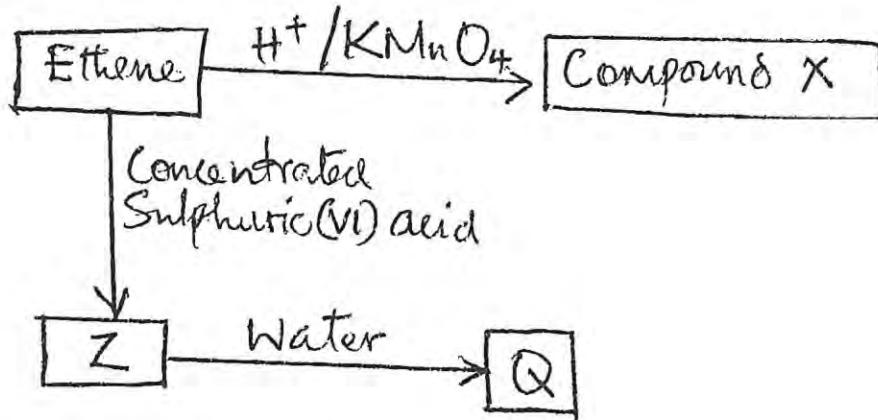
i)   Give the structural formula of substances   (2mk)
     X




     Z




ii)  Write an equation for the reaction between Z and water.   (1mk)

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6. a) Differentiate between exothermic and endothermic reactions.   (1mk)

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   b) The table below gives bond energies of some covalent compounds
   c) T
      h
      e

| Bond | Bond energy ( kJmol-1) |
|------|------------------------|
| C-H  | 413 |
| O=O  | 497 |
| C=O  | 804 |
| H-O  | 464 |

      t
      a
      b

Calculate the enthalpy change for the combustion of methane in excess oxygen gas.  (2mk)

7.  a) What are isotopes?        (1mk)

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b) An ion of sulphur can be represented as      $^{32}_{16}S^{2-}$. Draw a diagram to show the distribution of the electrons and the composition of the nucleus of the ion of sulphur. (2mk)

8.  The set –up below shows the preparation of dry oxygen gas. Study it and and answer the questions that follow.

**Water**
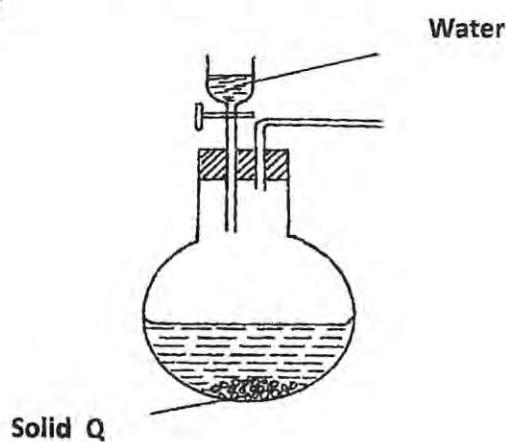


**Solid Q**

a) Identify Solid Q    (1mk)

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

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c) Complete the diagram to show the collection of dry oxygen gas.   (2mk)

9. a) State one way in which the strength of an acid or a base can be determined in the laboratory.    (1mk)

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b) Give the basicity of the following acids.    (2mk)
i) Sulphuric (VI) acid

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ii)    Phosphoric (V) acid

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10. The set up below shows an experiment where dry hydrogen was passed over heated copper (II) oxide



Dry hydrogen

Heat

Copper (II) oxide
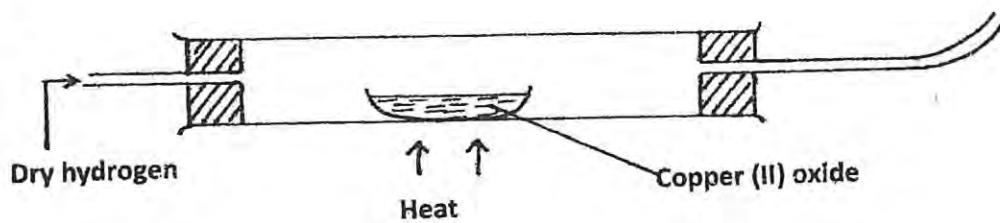
a) Write an equation for the reaction in the combustion tube.  (1mk)

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b) State and explain any one observation made in the combustion tube during the experiment.   (2mk)

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11. Using dots(•) and crosses (X) draw the electronic structures of the following showing only the outermost energy levels.
  i)    Carbon (II) oxide        (1mk)

  ii)   Ammonium ion             (1mk)

12.  6.84g of aluminiumsulphate were dissolved in 300 cm³ of water. Calculate the molarity of the sulphate ions in the solution.  ( Al=27, S=32, O=16)   (3mk)

13. The flow chart below shows some properties of two allotropes of element P.
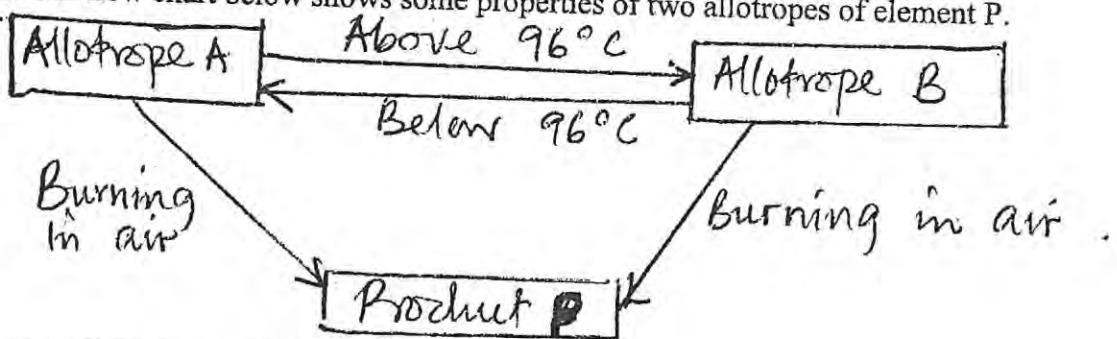


a)  Name the allotrope A      (1mk)

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b) Write an equation to show formation of Product P. (1mk)

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c) What does $96^0C$ represent? (1mk)

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14. Starting with 50 cm$^3$ of 0.1M sodium hydroxide solution, describe how sodium sulphate crystals can be prepared. (3mk)

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15. Study the flow chart below and answer the questions that follow.
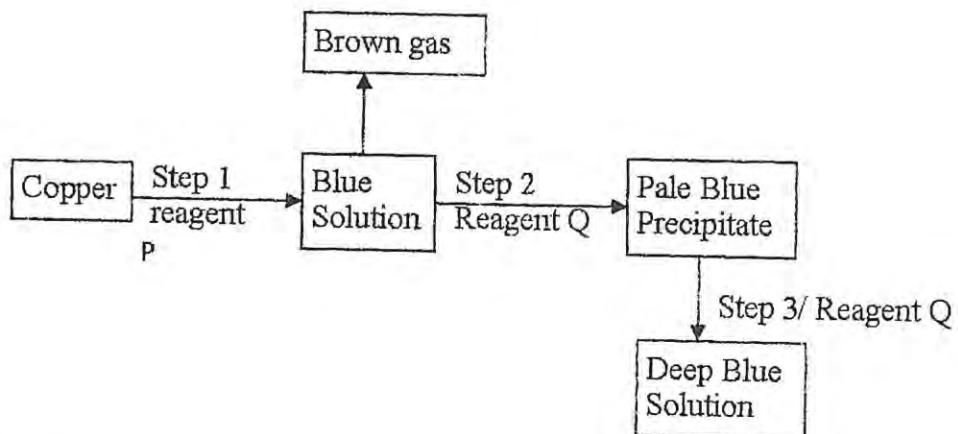


a) Name the reagents P and Q (2mk)

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b) Write the formula of the complex ions present in the deep blue solution. (1mk)

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15. The catalytic oxidation of ammonia gas is done as per the set up below.
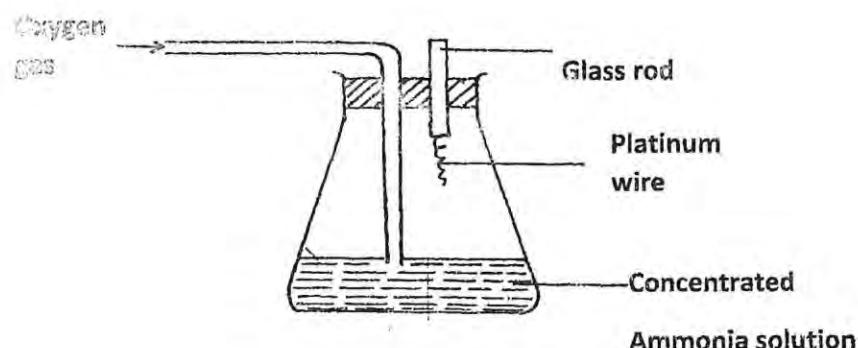


a) State two observations made in the flask. (2mk)

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c) Write two equations for the reaction that occur in the flask. (2mk)

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17. In an experiment to determine the solubility of potassium nitrate at 30 0C, a saturated solution was heated in an evaporating dish until there was no further change in mass. The following data was obtained.

Mass of dish + Solution= 128.9g

Mass of dish + Dry salt =103.9g

Mass of empty dish =94.3g

Determine the solubility of potassium nitrate in moles/ litre. (K=39, N=14, O=16) (3mk)

18. The experiment below was used to investigate the behavior of some ions during electrolysis.



**Bulb**

**Platimum electrodes**

**Molten PbBr₂**
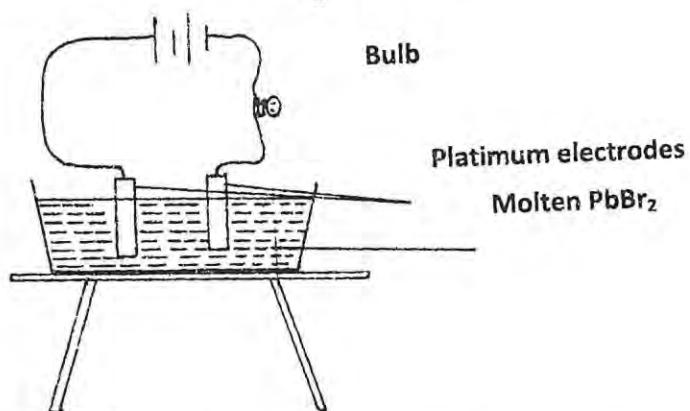
a) State and explain the observation made at the cathode.    (2mk)

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b) Write an equation to show what happens at the anode. (1mk)

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19 The diagram below shows an experimental set up for preparing Carbon (II) Oxide. Study it and answer the questions that follow.



**charcoal**

**Gas Q**

**↑ ↑ ↑**

**Heat**

**Combustion tube**

**Sodium hydroxide solution**
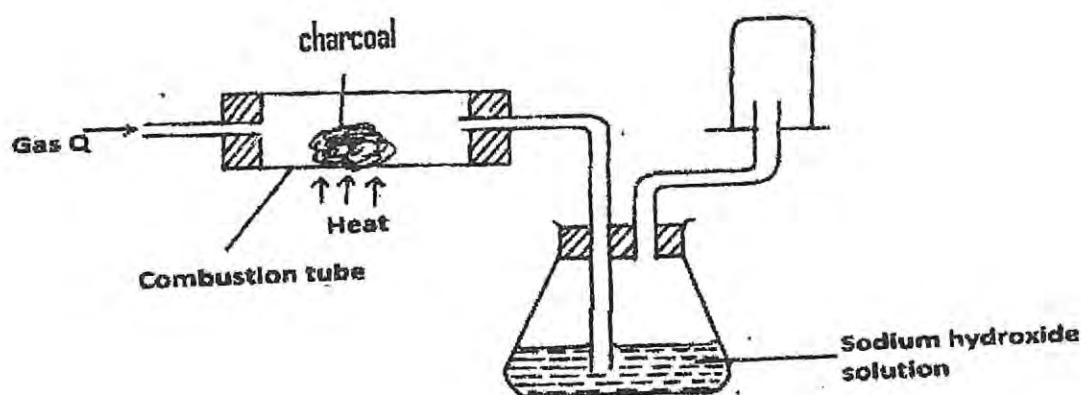
a) State the reason why Carbon (II) Oxide is collected in the manner illustrated (1mk)

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b) State two uses of carbon (II) oxide.    (2mk)

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c) State the role of sodium hydroxide solution in the above set up.    (1mk)

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1. Three brands of inks M, N and O were suspected to be contaminated with substance P. The result is shown below;
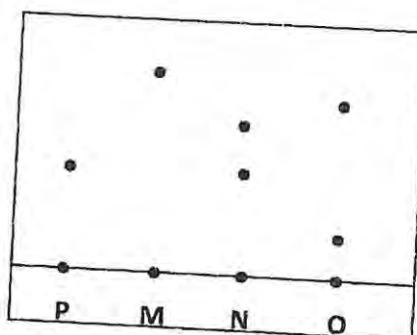


i) Which ink was contaminated with substance P.............................    (1mk)

ii) Name the ink which was pure ...........................................    (1mk)

iii) Indicate the solvent front on the chromatogram.

(1mk)

21. Chlorine gas was bubbled into a solution of hydrogen sulphide as shown below:-



a) State and explain the observation that would be made in the tube.    (2mk)
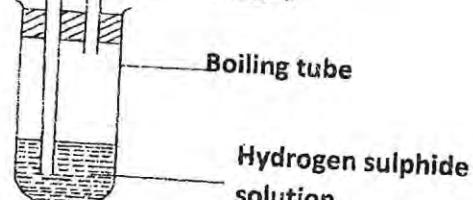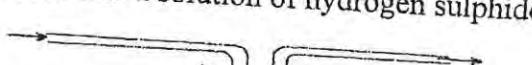
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b) Both chlorine and hydrogen sulphide gas can be prepared using hydrochloric acid as one of the reagents. Write two separate equations showing how each gas can be prepared using hydrochloric acid.      (2mk)

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22. In the chemical equation below identify the base and give a reason for your choice.

$C_2H_5O^-_{(aq)}$   +   $H_2O_{(l)}$   |   $C_2H_5OH_{(aq)}$   +   $OH^-_{(aq)}$      (2mk)

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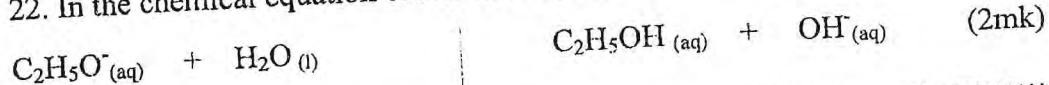
23. When aqueous barium chloride was added to an aqueous sodium salt W, a white precipitate was formed. On addition of dilute hydrochloric acid, the white precipitate dissolved and a gas evolved. Name two possible identities of W.   (2mk)

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24. Study the arrangement below and answer the question that follows.
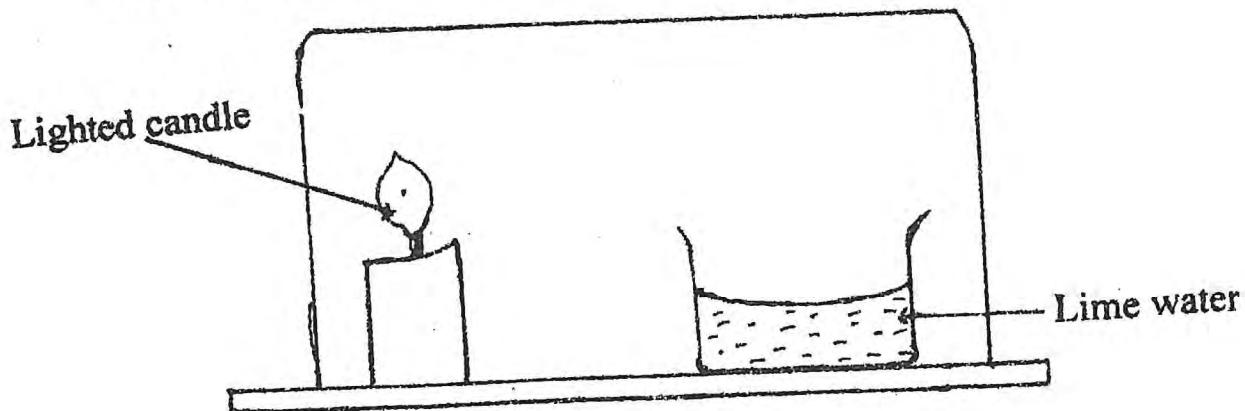


Explain what happens to the lime water after some time.   (2mk)

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25. Study the table below and answer the questions that follow.

| Solution | A | B | C | D |
|----------|------|-----|-----|-----|
| pH | 13.0 | 7.0 | 2.0 | 6.5 |

a) Identify the Solution that is likely to be that of lemon juice.   (1mk)

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b) Which solution reacts vigorously with magnesium   (1mk)

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c) Which solution is likely to produce green colour with the universal indicator.   (1mk)

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26. 4.0g of magnesium carbonate having some impurity of magnesium sulphate were dissolved in 250 cm³ of 1.0 M hydrochloric acid. 25 cm³ of the resulting solution was found to require 28.8 cm³ of 0.6 M sodium hydroxide for complete neutralization. Calculate the percentage purity of magnesium carbonate. (Mg= 24, C=12, O=16) (4mk)

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Name:.................................................................Adm.No...............Stream.................

School: .................

**233/2**
**CHEMISTRY**
**Paper 2**
**ARCH 2019**
**me: 2 hours**

# HAWK 1 JOINT EXAMINATION-2019
## Kenya Certificate to Secondary Education
### CHEMISTRY PAPER 2
### TIME: 2 HOURS

## INSTRUCTIONS TO CANDIDATES

- *Write your name and index number in the spaces provided.*
- *Answer **all** questions in the spaces provided*
- *Mathematical tables and silent electronic calculators **may** be used for calculations.*
- *All workings **must** be clearly shown where necessary.*
- *Candidates should check the question paper to ascertain all the 12 pages are printed as indicated and no questions are missing.*

### For Examiners Use Only

| Questions | Maximum Score | Score |
|:---------:|:-------------:|:-----:|
| 1 | 12 | |
| 2 | 12 | |
| 3 | 12 | |
| 4 | 11 | |
| 5 | 11 | |
| 6 | 11 | |
| 7 | 11 | |
| 8 | 11 | |
| **TOTAL** | **80** | |

1. I) Study the diagram below and answer the questions that follow.
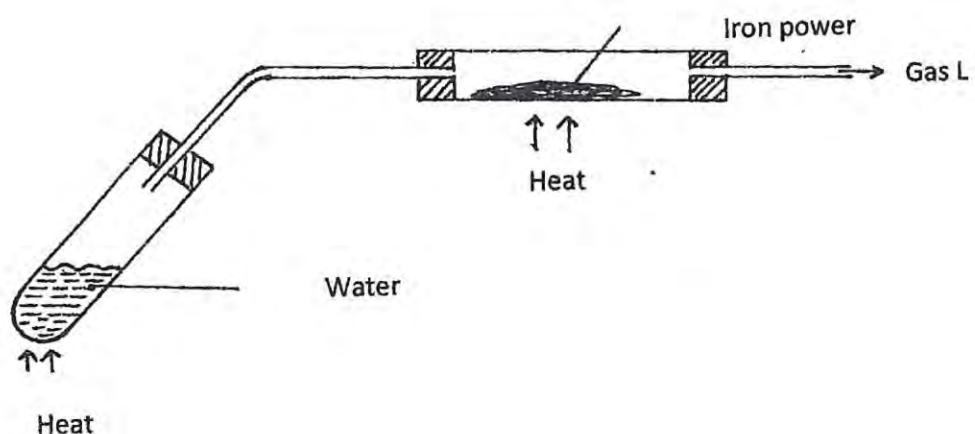


a) State the observation made in the combustion tube during the experiment. (1mk)

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b) Write an equation for the reaction in the combustion tube. (1mk)

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c) Explain why it was necessary to heat the water before heating the iron powder. (1mk)

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d) State two commercial uses of gas L (2mk)

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e) Describe how the presence of gas L can be confirmed. (2mk)

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f) State how gas L would be collected without using water. (1mk)

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II) A small piece of sodium was dropped in water in a trough.
a) Write an equation for the reaction that occurred in the trough.    (1mk)

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b) State and explain any three observations that were made in the trough. (3mk)

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2. I) Study the scheme below to answer the questions that follows
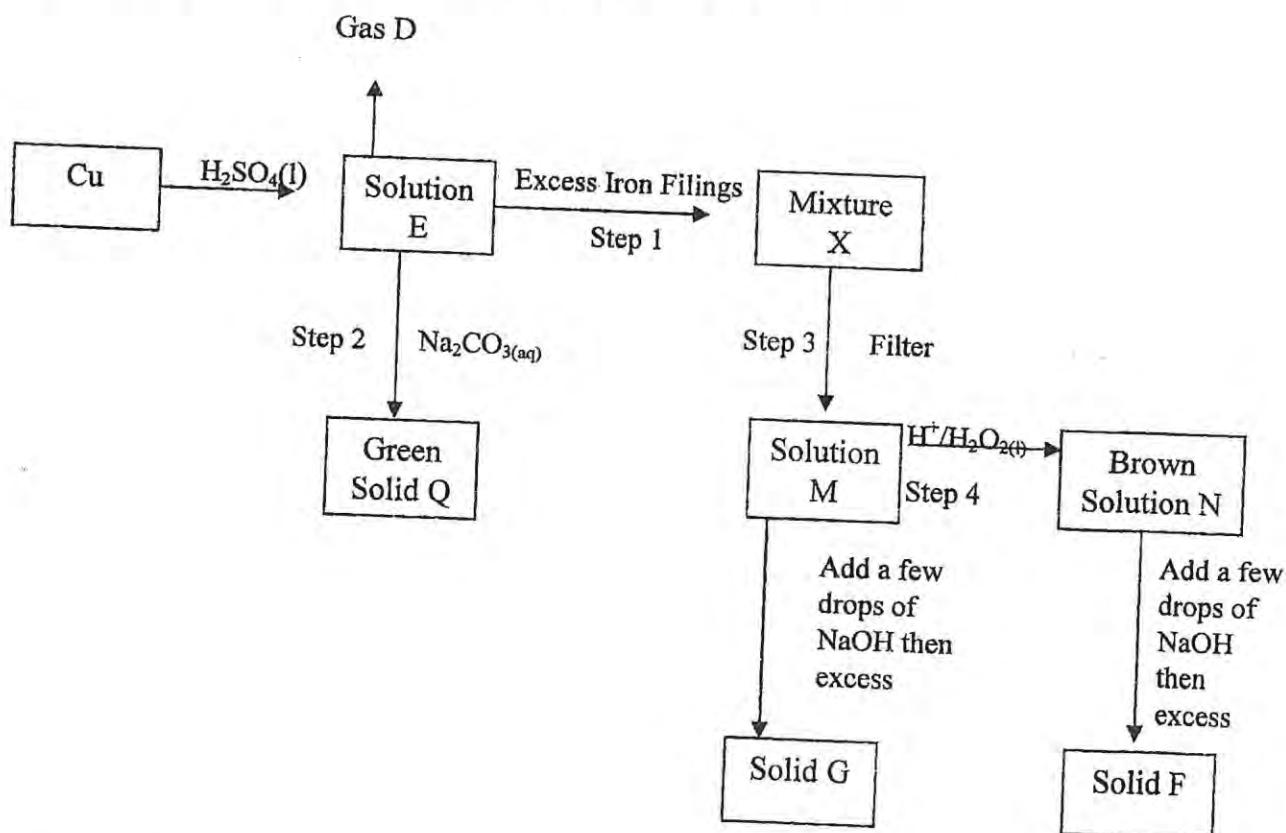


(i) Name the following substances.                                    (2marks)

Solution E

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Green solid Q

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

Solid F

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

Solution M

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

(ii) State the observation made at step I                                    (1mark)

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(iii)Name the reaction that takes place at step 2                            (1mark)

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(iv)Write chemical equation to represent the formation of solid G.          (1mark)

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II) Water hardness caused by dissolved calcium may be removed by precipitation using sodium carbonate. In a given experiment, 120 $cm^3$ portions of a sampleof water were added to different portions of 0.05 M sodium carbonate and the volume of soap required to form lather determined. The results are in the table below.

| Volume of 0.05M Sodium carbonate added ($cm^3$) | 0 | 10 | 20 | 30 | 40 | 50 | 60 |
|---|---|---|---|---|---|---|---|
| Volume of soap that forms lather ($cm^3$) | 12 | 10 | 8 | 6 | 4 | 2 | 2 |

a) Write an ionic equation to explain how sodium carbonate precipitates dissolved calcium in water. (1mk)

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b) What volume of sodium carbonate solution is required to precipitate all calcium in 120 cm3 of the water. (1mk)

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c) Calculate the number of moles of sodium carbonate required to precipitate all the calcium in 120 cm3 of water.    (1mk)

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d) If the dissolved calcium is purely calcium chloride, determine the concentration of calcium chloride in 120 cm3 of water in g/dm3.   (Ca=40, Cl=35.5)  (2mk)

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e) State two advantages of hard water.    (2mk)

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3. I) The diagram below represents a set up intended for the preparation and collection of dry chlorine gas. Study it to answer the questions that follow.
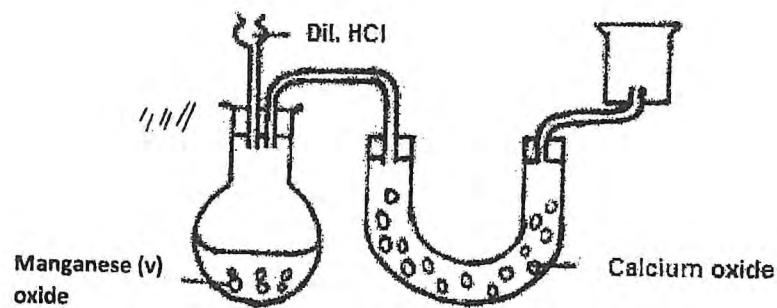


a) Identify two mistakes in the set up and give a reason for each.    (2mk)

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b) Why is potassium manganate (VII) preferred to manganese (IV) oxide in the above experiment.   (1mk)

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c) Write an ionic equation for the reaction between chlorine and potassium bromide. (1mk)

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II) Study the flow chart below to answer the questions that follow.
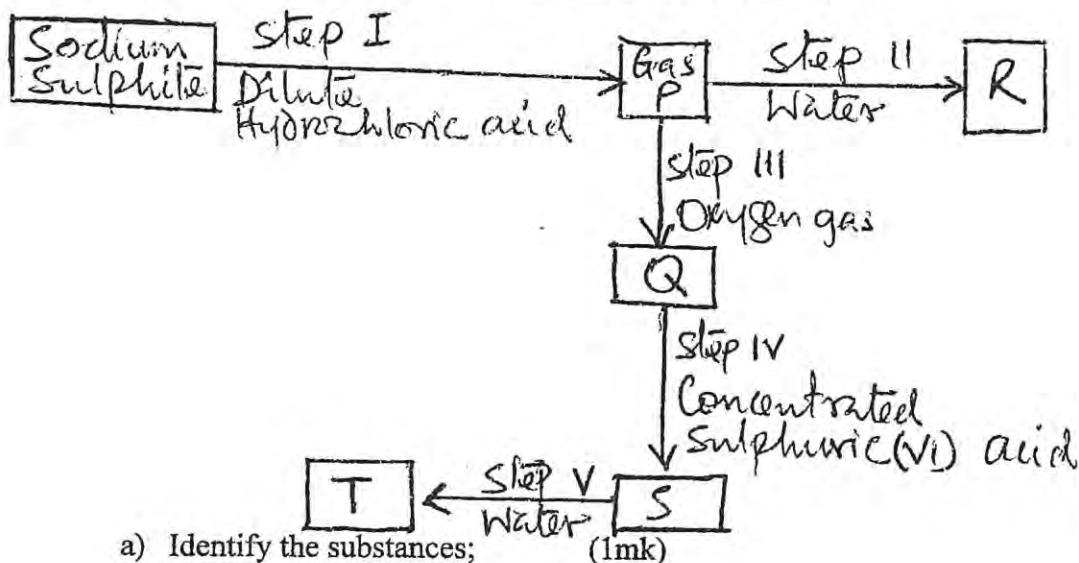


a) Identify the substances;        (1mk)

R...........................................................................................

S...........................................................................................

b) Write an equation for the reaction in        (2mk)
Step I

................................................................................................................................
Step IV

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

c) Gas P was bubbled through concentrated nitric (V) acid.
   i)    State and explain the observation made. (2mk)

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

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d) State two uses of substance T. (2mk)

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4. Study the table below and answer the questions that follow. The letters do not represent the actual symbols of the elements.

| Elements | Atomic number | Melting point ($^0$C) | Boiling point ($^0$C) | |
|---|---|---|---|---|
| A | 11 | 98 | 890 | |
| B | 12 | 650 | 1140 | |
| C | 13 | 660 | 2470 | |
| D | 14 | 1410 | 2360 | |
| E | 15 | 44.2 590 | 280 | |
| F | 16 | 113 119 | 445 | |
| G | 17 | -101 | -35 | |
| E | 18 | -189 | -186 | |

a) Write the electron arrangement for the ions of; (2mk)
   B

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   F

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b) Why do the elements E and F have two values of melting points. (1mk)

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c) State the nature of the oxide of elements A and F. (2mk)
   A

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

   F

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

d) Explain the following observations in terms of structure and bonding.

i) There is increase in boiling point from A to C. (2mk)

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ii) Element D has a high melting and boiling points. (2mk)

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e) Use dots (.) and crosses (x) to draw the structure of the dimer of chloride of element C. (2mk)

5. The scheme below shows several reactions starting with propanol. Study it to answer the questions that follow.
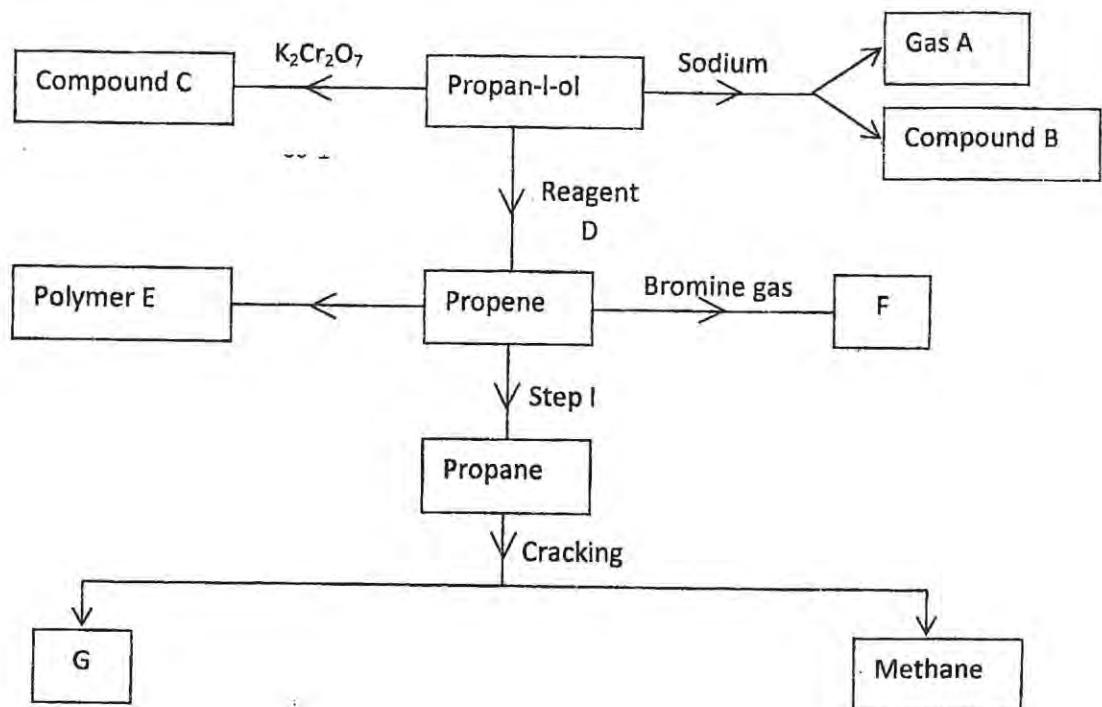
a) Identify the product. B   (1mk)

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b) Name the compound C    (1mk)

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c)     State the conditions for Step I.                    (1mk)

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

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

|  | W | V | U |
|---|---|---|---|
| Reaction with liquid bromine | Decolourises bromine very fast | No reaction | Decolourises bromine slowly |
| Combustion | Burns with yellow sooty flame | Burns with a blue flame leaving no residue |  |
| Reaction with concentrated sulphuric (V) acid | No reaction | It is dehydrated to form compound U | Reacts to form V |

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

W.................................................................

V.................................................................

U.................................................................

f) $CH_2=CH-CH_3$ when heated under high temperatures and pressures forms a solid with large molecular mass. Name the solid and give one use of the solid.   (2mk)

Name.................................................................

Use.................................................................

g) State two uses of cracking.   (2mk)

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6.a) What is meant by binary electrolyte.   (1mk)

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b) Study the set up below to answer the questions that follow.
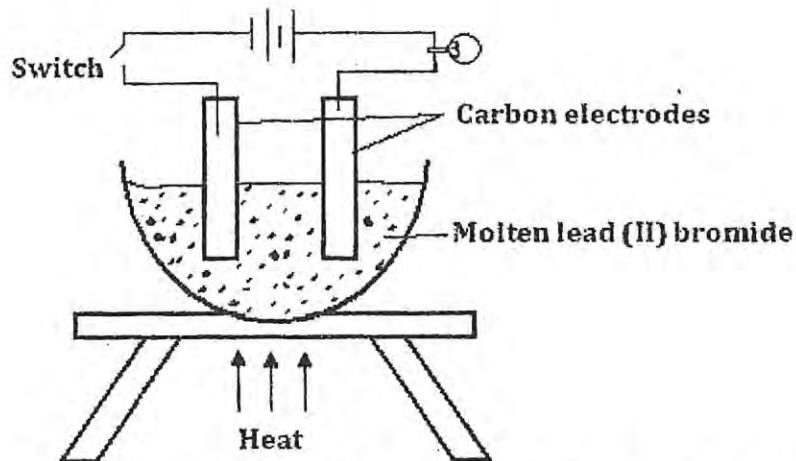


i). State and explain the observations made at the each electrode if the circuit is completed. (3mk)

Anode...........................................................................................

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Cathode.........................................................................................

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ii) Write ionic equations for the reactions at:          (2mk)

Anode

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

Cathode

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i)   State two reason why graphite is commonly preferred to other electrodes.  (2mk)

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ii) State three applications of electrolysis.    (3mk)

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7. a)    Using an energy cycle diagram, calculate the standard enthalpy change of formation of carbon (IV) sulphide.

(3 marks)

$S_{(s)}+O_2 \longrightarrow SO_{2(g)}$        $\Delta H=-294KJ/mol$

$CS_{2(l)}+3O_{2(g)} \longrightarrow CO_{2(g)}+2SO_{2(g)}$  $\Delta H=-1072KJ/mol$

$C_{(s)}+O_{2g} \longrightarrow CO_{2(g)}$        $\Delta H=-393KJ/mol$
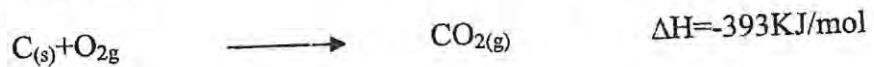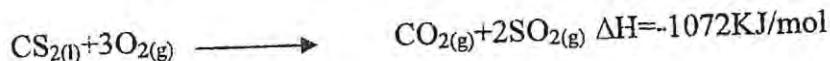
b) An experiment was carried out where different volumes of dilute nitric (V) acid and aqueous potassium hydroxide both at same temperature were mixed and stirred with a thermometer.
The highest temperature reached by the mixture was recorded in the table below.

| Volume of nitric (V) acid $(cm^3)$ | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 |
|---|---|---|---|---|---|---|---|---|---|
| Volume of potassium hydroxide $(cm^3)$ | 36 | 32 | 28 | 24 | 20 | 16 | 12 | 8 | 4 |
| Highest temperature of mixture $^0C$ | 19.8 | 22..2 | 24.6 | 27.0 | 27.0 | 25.0 | 23.0 | 21.0 | 19.0 |

a) Plot a gragh of highest temperature against volume of nitric (V) acid     (3mk)
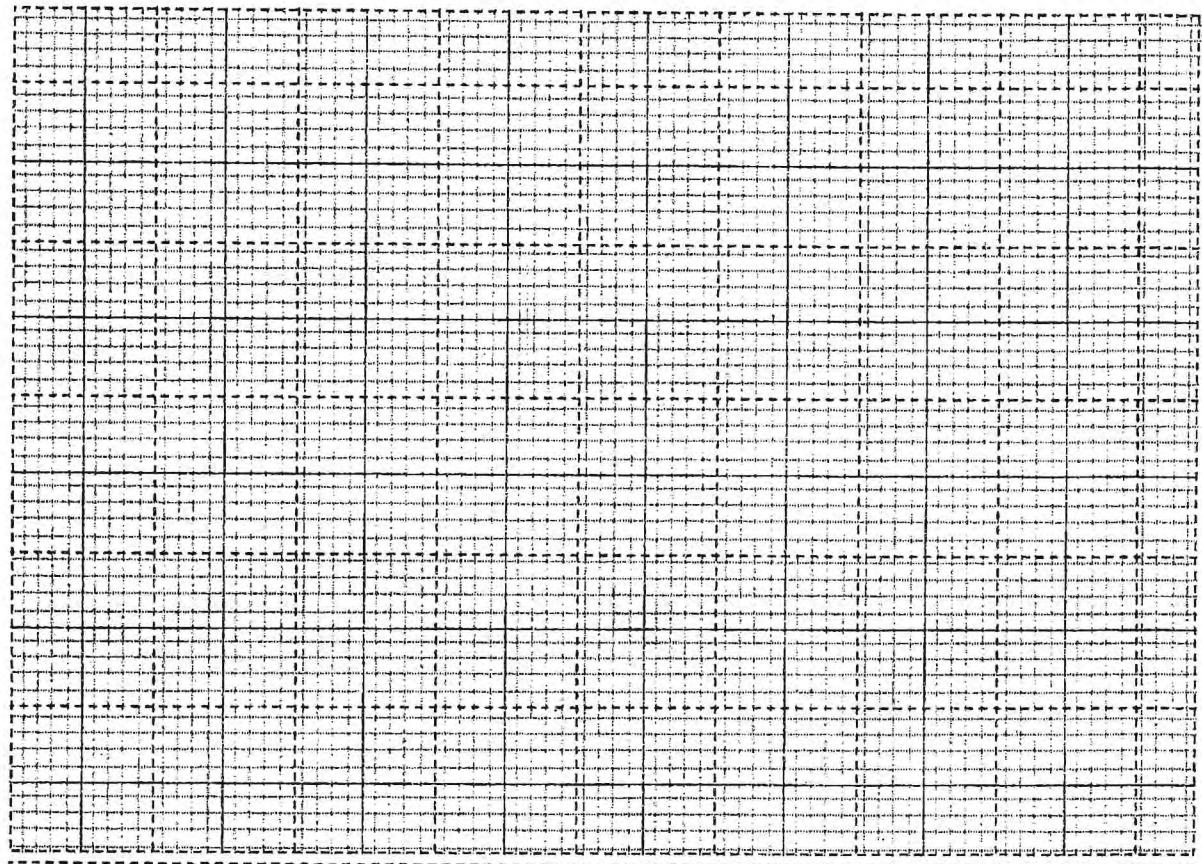


a) From the gragh, determine the:
   i). Highest temperature *Change*(1mk)

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iii)     Volume of the acid that is required to completely neutralize the the base.   (1mk)

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b) Calculate the molar heat of neutralization of nitric (V) acid. Given that the concentration of the acid used was 2.0mol/litre. ( Specific heat capacity=4.2 kJkg$^{-1}$K$^{-1}$ and density of solution = 1.0gcm$^{-3}$)      (3mk)

NAME: .............................................INDEX NUMBER: ......................................

SCHOOL: ..................................... CANDIDATE'S SIGNATURE: ....................

**233/3 CHEMISTRY practicals**

**2 ¼ Hours**

### HAWK 1 CLUSTER EVALUATION TEST - 2019

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

#### INSTRUCTIONS TO CANDIDATES

- Write your name and Index Number in the spaces provided above.
- Sign and write date of examination in the spaces provided above.
- Answer all questions in the spaces provided in the question paper.
- All workings must be clearly shown where necessary. Mathematical tables and silent electronic calculators may be used.

**For Examiners use only.**

| Question | Maximum Score | Candidates Score |
|----------|---------------|------------------|
| 1 | 19 | |
| 2 | 13 | |
| 3 | 08 | |
| TOTAL | 40 | |

1

1. You are provided with:-

   5.0 g of solid Q, oxalic acid in a boiling tube.

   You are required to determine the solubility of solid **Q** at different temperatures.

   ### Procedure II

   (i)     (a) Fill the burette with distilled water. Using the burette, add $4.0cm^3$ of distilled water to solid Q in the boiling tube. Heat the mixture while stirring with a thermometer to about $75^0C$ until all the solid dissolves.

   ii)     Allow the solution to cool while stirring with the thermometer and note the temperature at which crystals of solid Q start to appear. Record this temperature i table II.

   iii)    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.

   iv)     Allow the mixture to cool while stirring and note the temperature at which crystals of solid Q start to appear.

   v)      Repeat the procedure (iii) and (iv) to complete table II.

   ### TABLE II

   | Volume of water in boiling tube (cm³) | Temperatures at which crystals of solid Q first appear (⁰C) | Solubility of solid Q (g/100g) of water |
   |---|---|---|
   | 4 | | |
   | 6 | | |
   | 8 | | |
   | 10 | | |
   | 12 | | |

   ( 3mks

2

On the grid provided, plot a graph of solubility of Q against temperature.   (3mks)
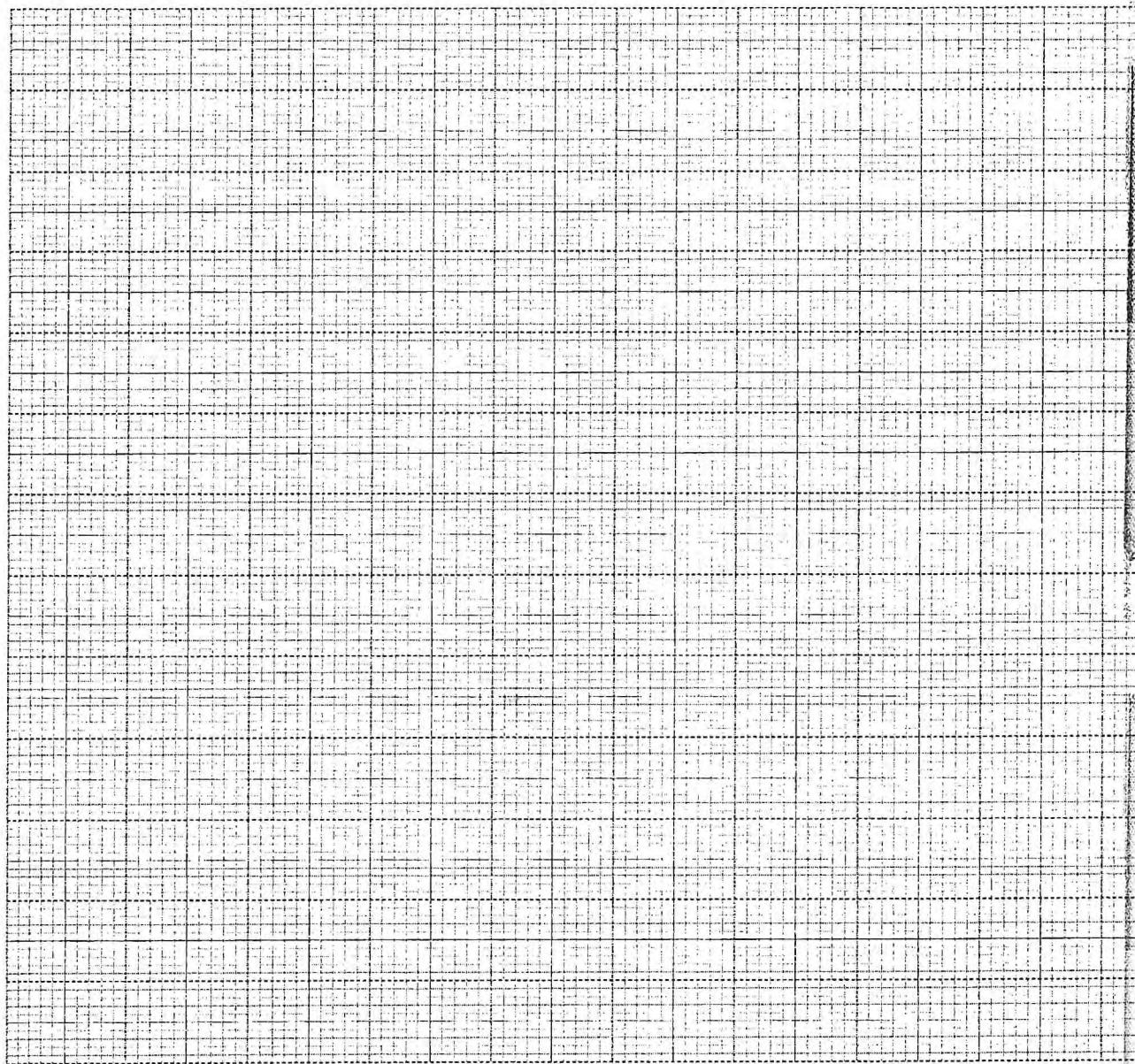


(i)   Using your graph, determine the temperature at which 100g of solid Q would dissolve in 100cm$^3$ of water.                                                                    (1mk)

3

(ii)   Determine the solubility of solid Q at $55^0C$.   (1mk)

(b) You are provided with :

- Solution S containing 3.65g of hydrochloric acid in $250cm^3$ of the solution.
- Solution T prepared by dissolving 5.3g of $Na_2A$ (solid T) in $250cm^3$ of the solution.

You are required to determine mass of A in the compound $Na_2A$.

**Procedure**

Clean the burette and fill it with solution S. using a pipette, place $25.0cm^3$ . solution T into clean dry conical flask. Add 2-3 drops of methyl orange indicator. Titrate solution T with solution S and record your results in table II below. Repeat the procedure above two more times to complete the table.

**Table II**

|  | I | II | III |
|---|---|---|---|
| Final burette reading $cm^3$ | | | |
| Initial burette reading $cm^3$ | | | |
| Volume of S used $cm^3$ | | | |

(4mks)

Calculate the:

(i)   Average volume of solution S used.   (1mk)

(ii)   The molar concentration of solution S. ( Cl= 35.5, H= 1)   (1mk)

4

(iii)    The concentration of solution T in g/dm$^3$.    (1mk)




(iv)    Given that the mole ratio of S:T when reaction occurs is 2:1, determine the concentration
         of T in moles per liter.                                                        (2mks)




(v)    Determine the molar mass of T and hence work out the molar mass of A in the compound
        Na$_2$A ( Na = 23)                                                              (2mks)




2. You are provided with solid **D**. You are required to carry out the tests described below. Write
    your observation and inferences accordingly.

   (a)    Place all solid **D** in a boiling tube. Add about 12cm$^3$ of distilled water and shake. Filter
          the mixture and divide the filtrate into six equal portions.  Add 2M sodium hydroxide
          solution drop wise then excess to the first portion.

| Observation | Inference |
|---|---|
| (1mk) | (1mk) |

(b) Add aqueous ammonia drop wise then excess to the second portion.

| Observation | Inference |
|---|---|
|  |  |

(c) To the third portion, add 2 – 3 drops of sodium chloride provided.

| Observation | Inferences |
|---|---|
| (1mk) | (1mk) |

(d) To the fourth portion, add 2 – 3 drops of lead (II) nitrate provided.

| Observation | Inferences |
|---|---|
| (1mk) | (1mk) |

(e) To the fifth portion, add 2 – 3 drops of barium nitrate provided then 1ml of 2M $HNO_3$.

| Observation | Inferences |
|---|---|
| (1mk) | (1mk) |

f) Add 3 drops of acidified potassium manganate (VII) to the sixth portion.

| Observation | Inferences |
|---|---|
| 1mk | 1mk |

6

3. You are provided with liquid F. carry out the tests below and record your observations and inferences in the spaces provided.

(i) Place 4 drops of liquid F on a watch glass and ignite.

| Observation | Inference |
|---|---|
| (1mk) | (1mk) |

(ii) To about 2cm³ of liquid F add 2-3 drops of bromine water.

| Observation | Inference |
|---|---|
| (1mk) | (1mk) |

(iii) To about 2cm³ of liquid F add all the sodium hydrogen carbonate provided.

| Observation | Inference |
|---|---|
| (1mk) | (1mk) |

(iv) To about 2cm³ of 3 drops of acidified potassium dichromate (VI) and warm.

| Observation | Inferences |
|---|---|
| (1mk) | (1mk) |

# HAWK 1 JOINT EXAMINATION-2019

*Kenya Certificate of Secondary Education (KCSE)*

311/1
HISTORY AND GOVERNMENT
PAPER 1
MARCH-2019
TIME: 2 ½ HOURS

INSTRUCTION
  a) This paper consists of three sections, A, B and C.
  b) Answer all the questions in section A, three questions from section B and two questions from section C.
  c) Answer to all questions must be written in foolscaps provided.

SECTION A

| QUESTION | 1-17 |
|---|---|
| MARKS | |

| SECTION B | QUESTION NO | 18 | 19 | 20 | 21 |
|---|---|---|---|---|---|
| | MARKS | | | | |

| SECTION C | QUESTION NUMBER | 22 | 23 | 24 |
|---|---|---|---|---|
| | MARKS | | | |

*This paper consist of 3 printed pages.*
*Candidate should check the question paper to ascertain all pages are printed as indicated*
*And no questions are missing.*

## Section A (25 Marks)

*Answer all questions in this section*

(2 mk

1. Identify two periods in History.                                                   (1 mk
2. Identify the pre historic site where the Kenyapithecus was first discovered.       (1 mk
3. Name the main dispersal point of the Eastern Bantus.
4. Identify one archaeological evidence that prove that the early visitors came to the East African coast.
(1 mk

5. Give two reasons that influenced Seyyid Said to move his capital from Muscat to Zanzibar in 1840.   (2 m
(1 ml

6. Define Dual Citizenship.                                                           (1 m
7. State one role of civilians during the struggle for independence.
8. Identify two ways through which colonial land policies promoted settler Agriculture in Kenya during
colonial period.                                                                      (2 m
                                                                                      } m
9. Give two reasons that made Nabongo Mumia to collaborate with the British.          (1 n
10. State one way through which direct rule is exercised in Kenya.                     (2 n
11. State two demands made by the African Elected Members Organization (AEMO) in 1957.  (1n
12. Identify one method used by the British to administer colonial Kenya.             (2 n
13. Identify two elements of the rule of law in Kenya.                                (2 r
14. Give two recommendations of the Lennox Boyd constitution of 1957.                 (1 r
15. Give the main role of the Court of Appeal.                                        (1 r
16. Identify one national philosophy in Kenya.
17. Name two financial officers in Kenya who are charged with management of the public finance both
the National and county level.                                                       (2

## Section B (45 Marks)
*Answer any three questions from this section*

(3

18. a) List three sub groups of the Ameru.
    b) Explain six effects of the migration of the Somali into Kenya during the pre colonial period.(12
19. a) State five factors that contributed to the development of the international trade in the 19th centur
(5

    b) Explain five effects of plantation agriculture on the people of East African Coast.   (1

20. a) State three methods that were used by the colonial government to acquire land for European Sett
(3

    b) Explain six problems experienced by the settlers in Kenya during the colonial period.   (1

21. a) State three problems faced by KADU in the struggle for independence.               (
    b) Explain six roles played by women during Mau Mau movement.                          (

1

22. a) State two ways through which citizenship by birth can be revoked.
    b) Explain six factors that promote National Unity in Kenya.
23. a) Give three reasons why Human Rights are important.
    b) Explain six principles of Democracy.
24. a) Name three subordinate courts in Kenya.
    b) Describe the law making process in the National Assembly in Kenya.

(3 m

(12 r

(3 m

(12 n

(3 m

(12 m
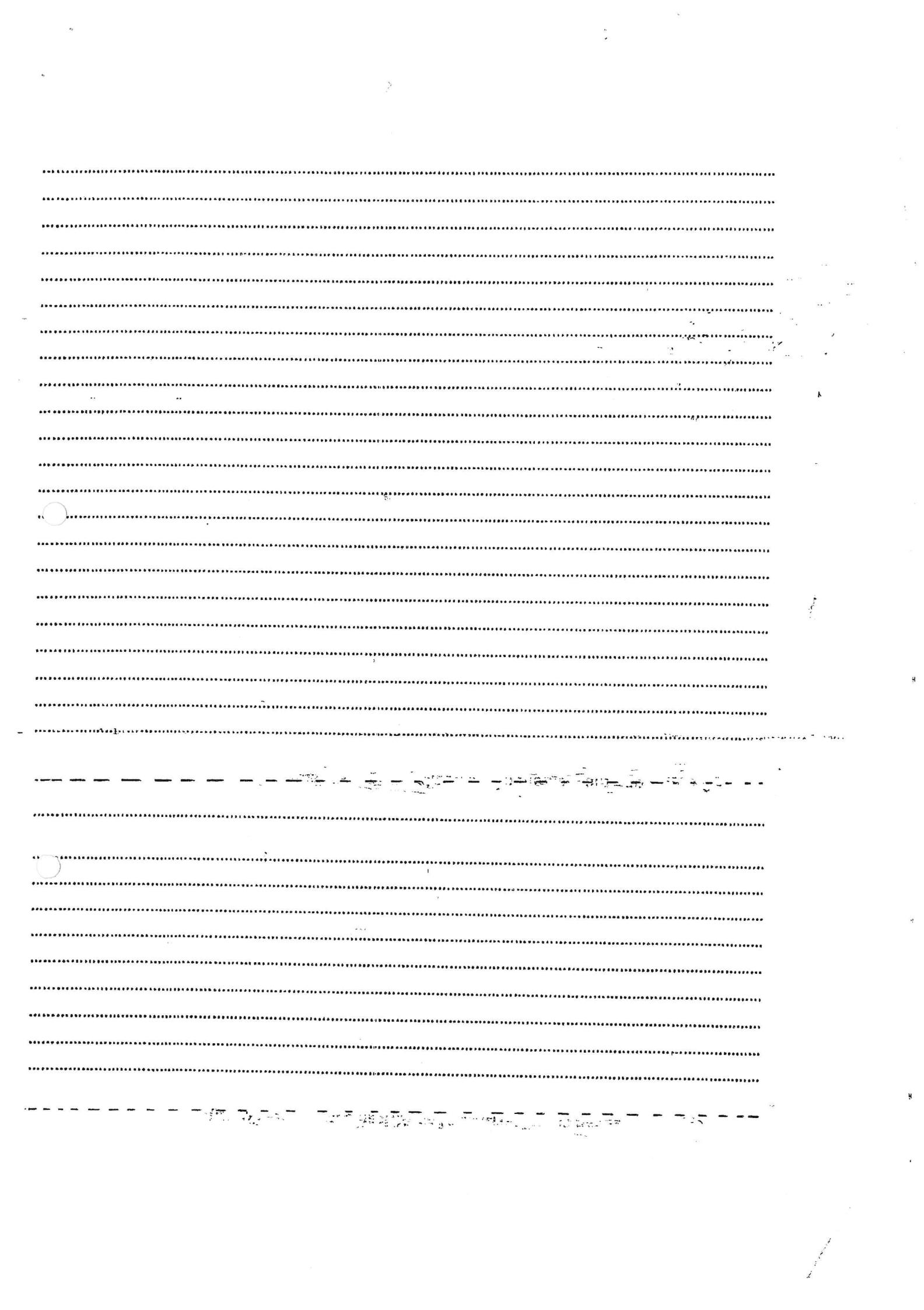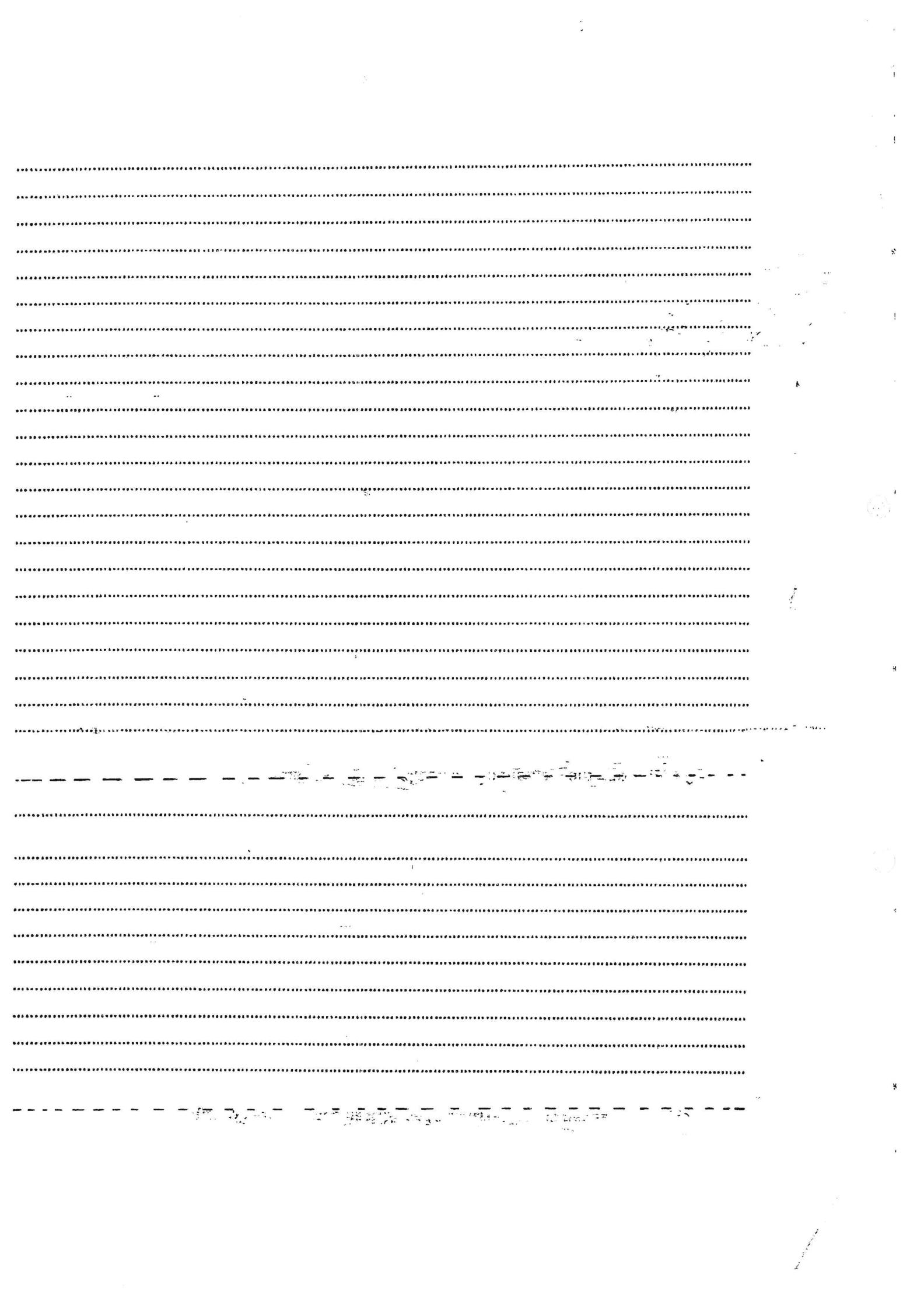
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STRM............................ SCHOOL................................................................................

# HAWK 1 JOINT EXAMINATION-2019
*Kenya Certificate of Secondary Education (KCSE)*

311/2
HISTORY AND GOVERNMENT
PAPER 2
MARCH-2019
TIME: 2 ½ HOURS

INSTRUCTION
   a) This paper consists of three sections, A, B and C.
   b) Answer all the questions in section A, three questions from section B and two questions from section C.
   c) Answer to all questions must be written in foolscaps provided.

SECTION A

| QUESTION | 1-17 |
|---|---|
| MARKS | |

| SECTION B | QUESTION NO | 18 | 19 | 20 | 21 |
|---|---|---|---|---|---|
| | MARKS | | | | |

SECTION C

| QUESTION NUMBER | 22 | 23 | 24 |
|---|---|---|---|
| MARKS | | | |

*This paper consist of 3 printed pages.*
*Candidate should check the question paper to ascertain all pages are printed as indicated*
*And no questions are missing.*

## SECTION A (Answer All Questions in this section) (25 MARKS)

1. Identify the **main** source of information in History that studies man's material culture .
   (1mark)
2. Identify **two** sub-species of Australopithecus (2marks)
3. Give **one** way in which the Nile Valley contributed to the development of early agriculture in Egypt (1mark)
4. Identify **two** areas where salt was obtained in the Trans-Saharan trade (2marks)
5. State **two** advantages of Macadam roads (2marks)
6. State **two** advantages of using a mobile phone as a means of communication (2marks)
7. State **one** disadvantage of using wood as a source of energy (1mark)
8. Identify **two** cultural impacts of Meroe's growth as an early urban center (2marks)
9. State **two** ways how centralization of authority contributed to the growth of Buganda Kingdom (2marks)
10. Give **one** way in which public opinion in Europe contributed to the colonization of Africa (1mark)
11. State **one** treaty signed between Lewanika and the British (1mark)
12. State **two** duties of Native Affairs Department in Zimbabwe during the colonial period (2marks)
13. Name the underground movement that spearheaded the armed resistance in South Africa during the Apartheid system (1mark)
14. Give **one** type of nationalism in South Africa during the colonial period (1mark)
15. State **two** Major events that led to the end of the First World War (2marks)
16. Identify **one** permanent member of the council of the League of Nations (1mark)
17. State **one** condition that a country should fulfill in order to become a member of the Non-Aligned Movement (1mark)

## SECTION B (Answer Any Three Questions in this section) (45 MARKS)

18. a) State **three** ways in which archeologists and Paleontologists locate a historical site (3marks)
    b) Explain **six** cultural practices of Homo erectus during the Middle Stone Age (12marks)
19. a) State **three** factors that undermined the Trans-Saharan trade (3marks)
    b) Explain **six** factors that led to the decline of Trans-Atlantic Trade (12marks)
20. a) State **three** challenges that the second empire established by Samori Toure faced (3marks)
    b) Explain **six** reasons why Samori Toure resisted the French for long (12marks)
21. a) State **five** factors for the rise of Nationalism in Mozambique (5marks)
    b) Explain five challenges that undermined the activities of Nationalists in Mozambique (10marks)

**SECTION C (Answer Any Two Questions in this section) (30 MARKS)**

22. a) Name **three** types of spirits that existed among the Shona (3marks)
    b) Explain the political organization of the Mwene Mutapa kingdom during the pre-colonial period (12marks)

23. a) Give **three** reasons why the central powers were defeated in the First World War
    (3marks)
    b) Explain **six** political effects of the Second World War (12marks)

24. a) Identify **three** benefits of international relations (3marks)
    b) Explain **six** challenges faced by the United Nations Organization (12marks)
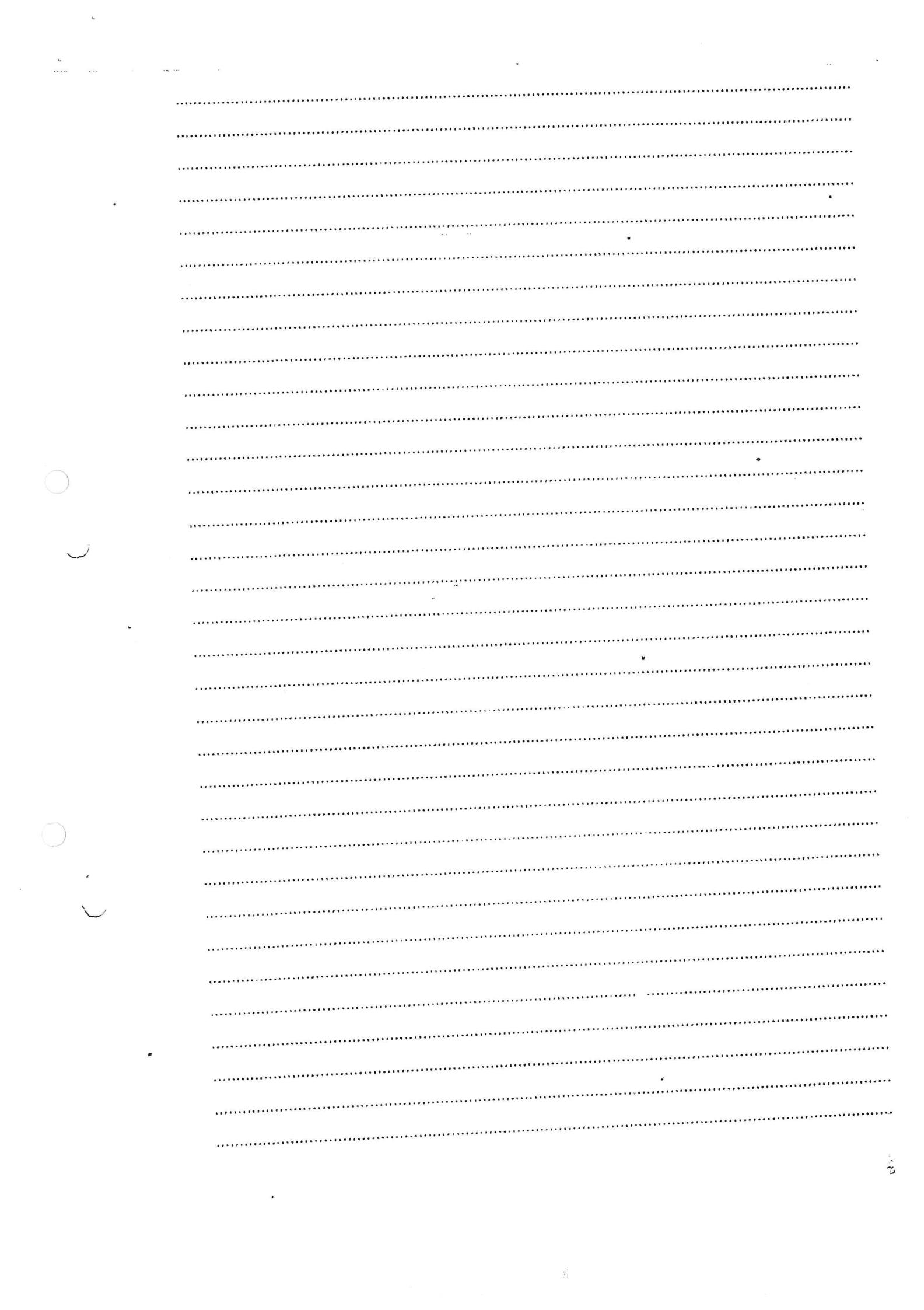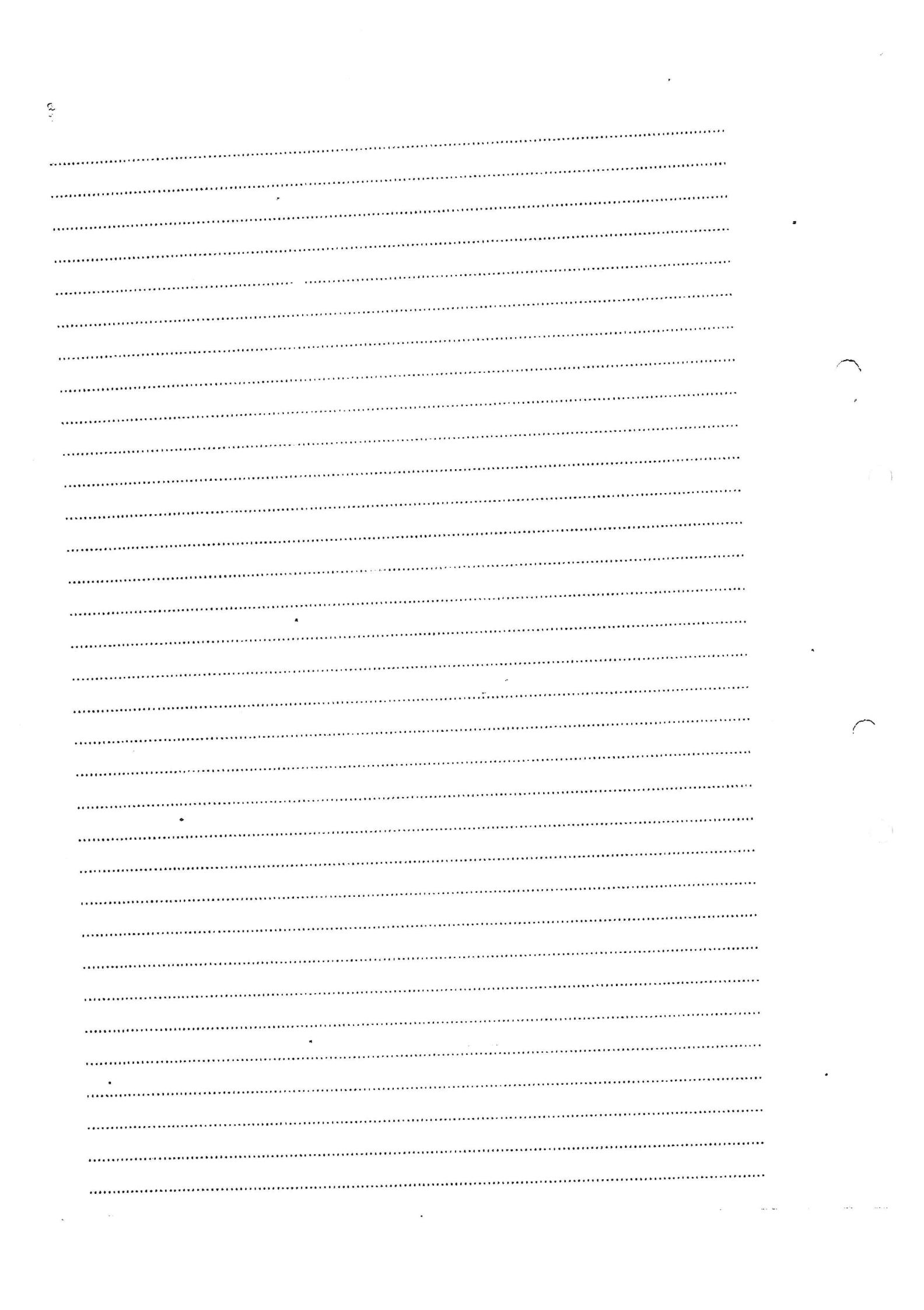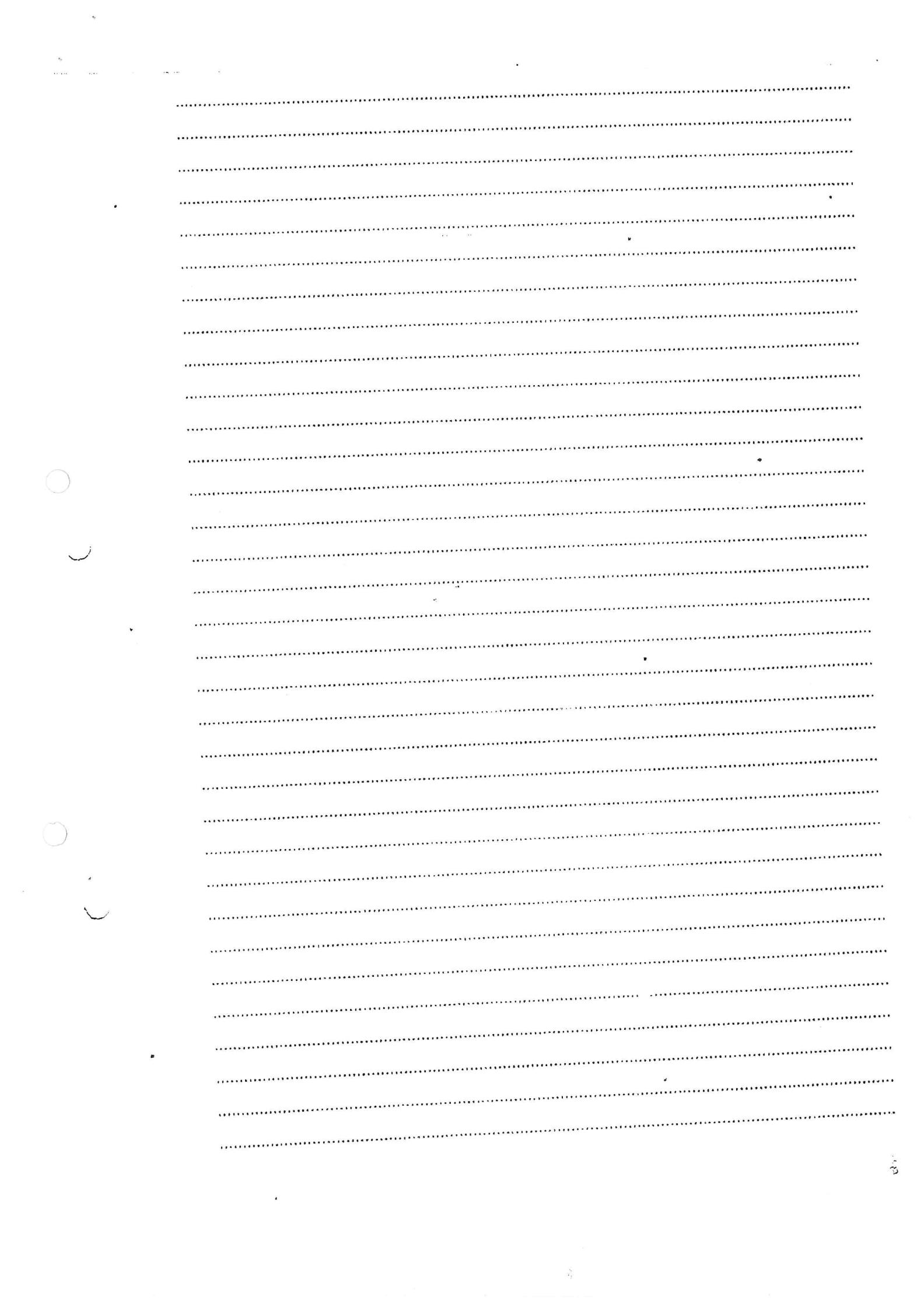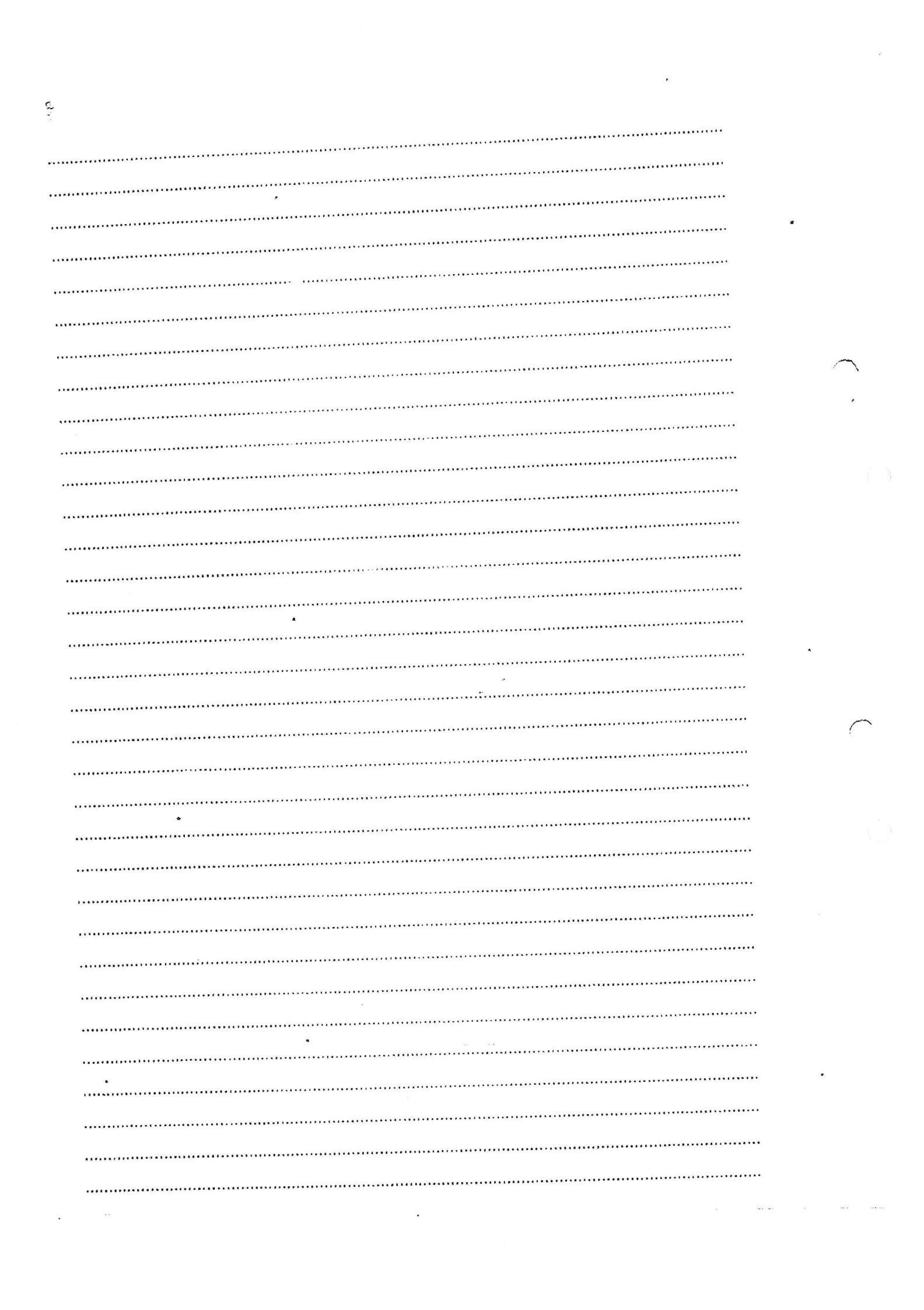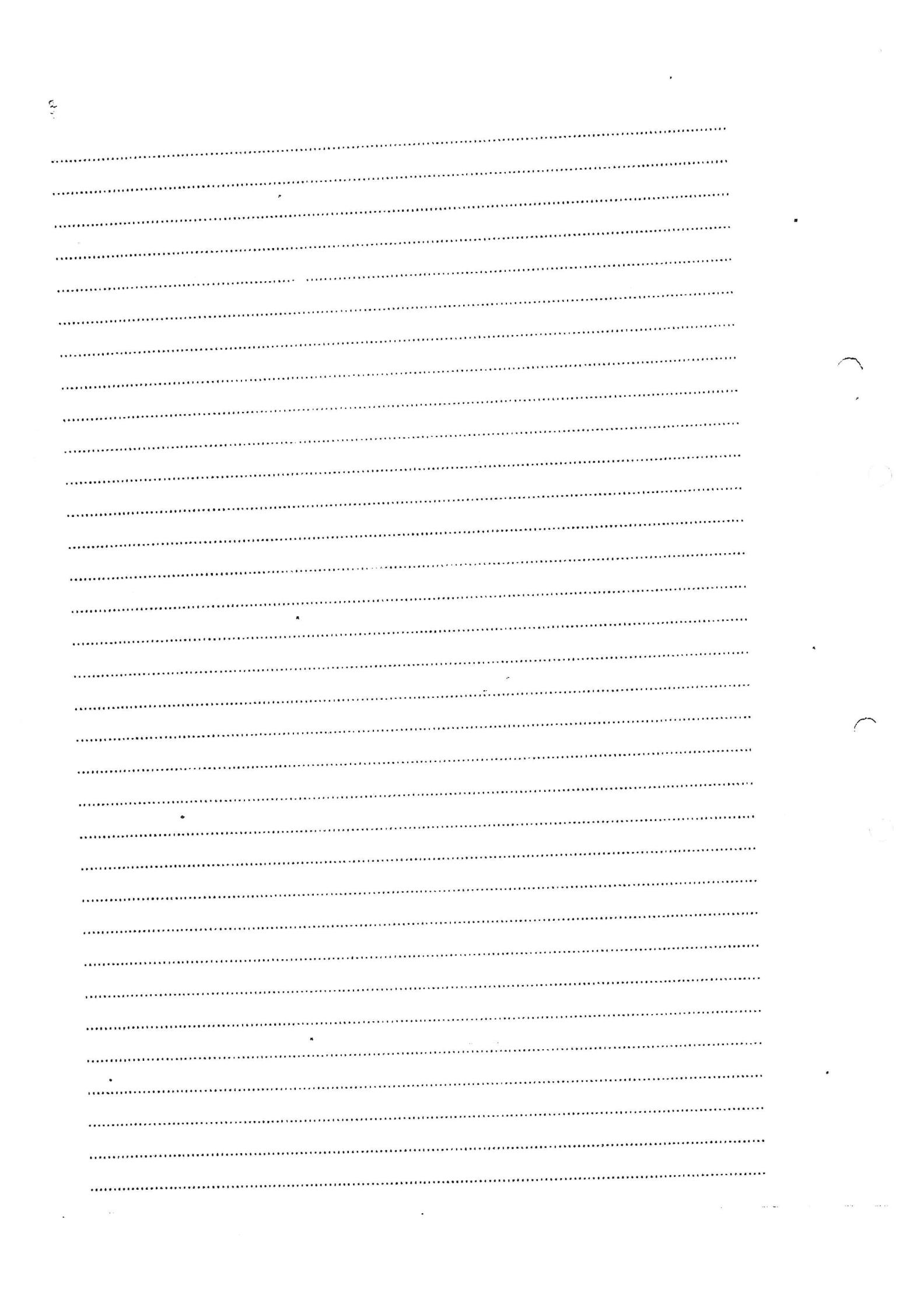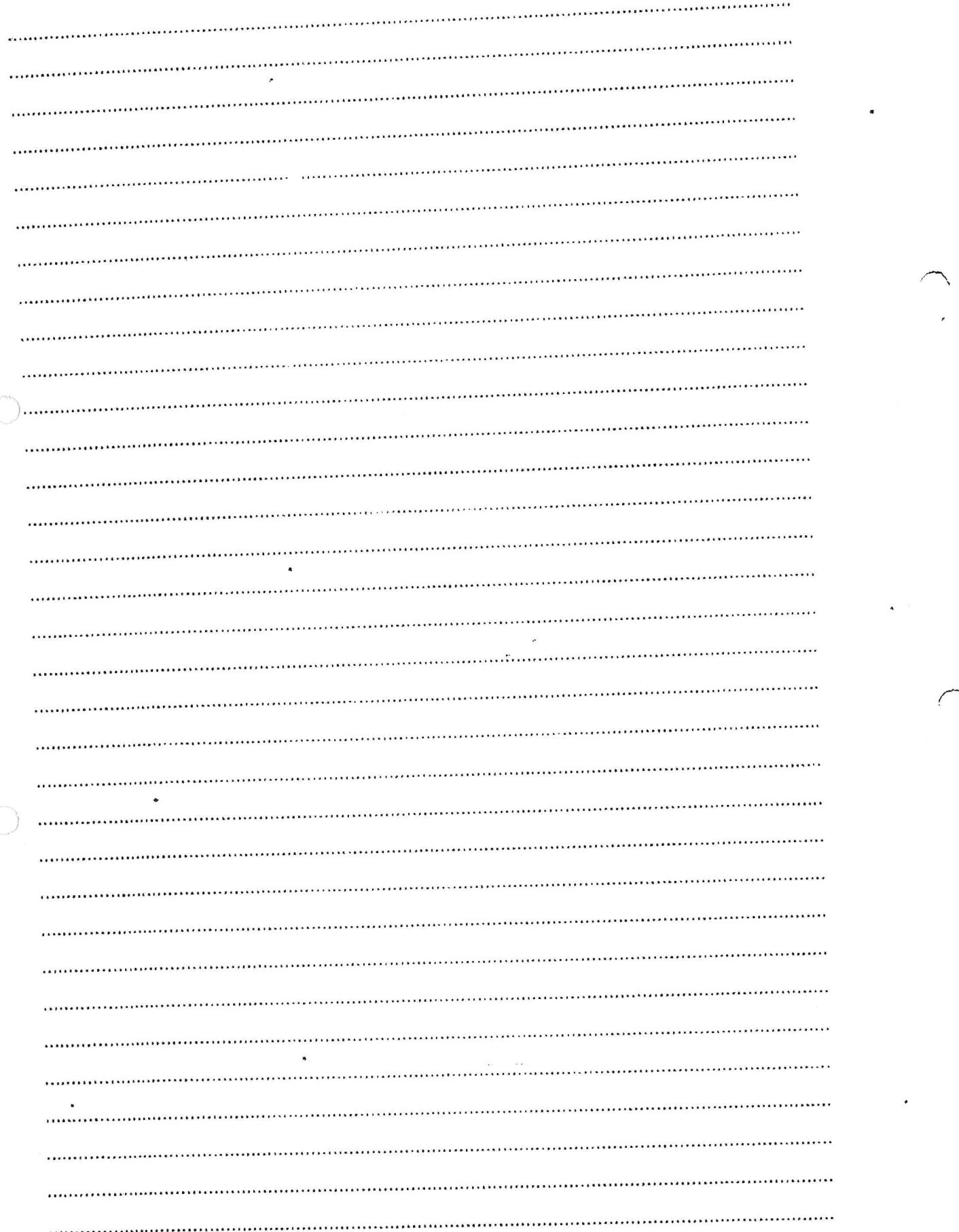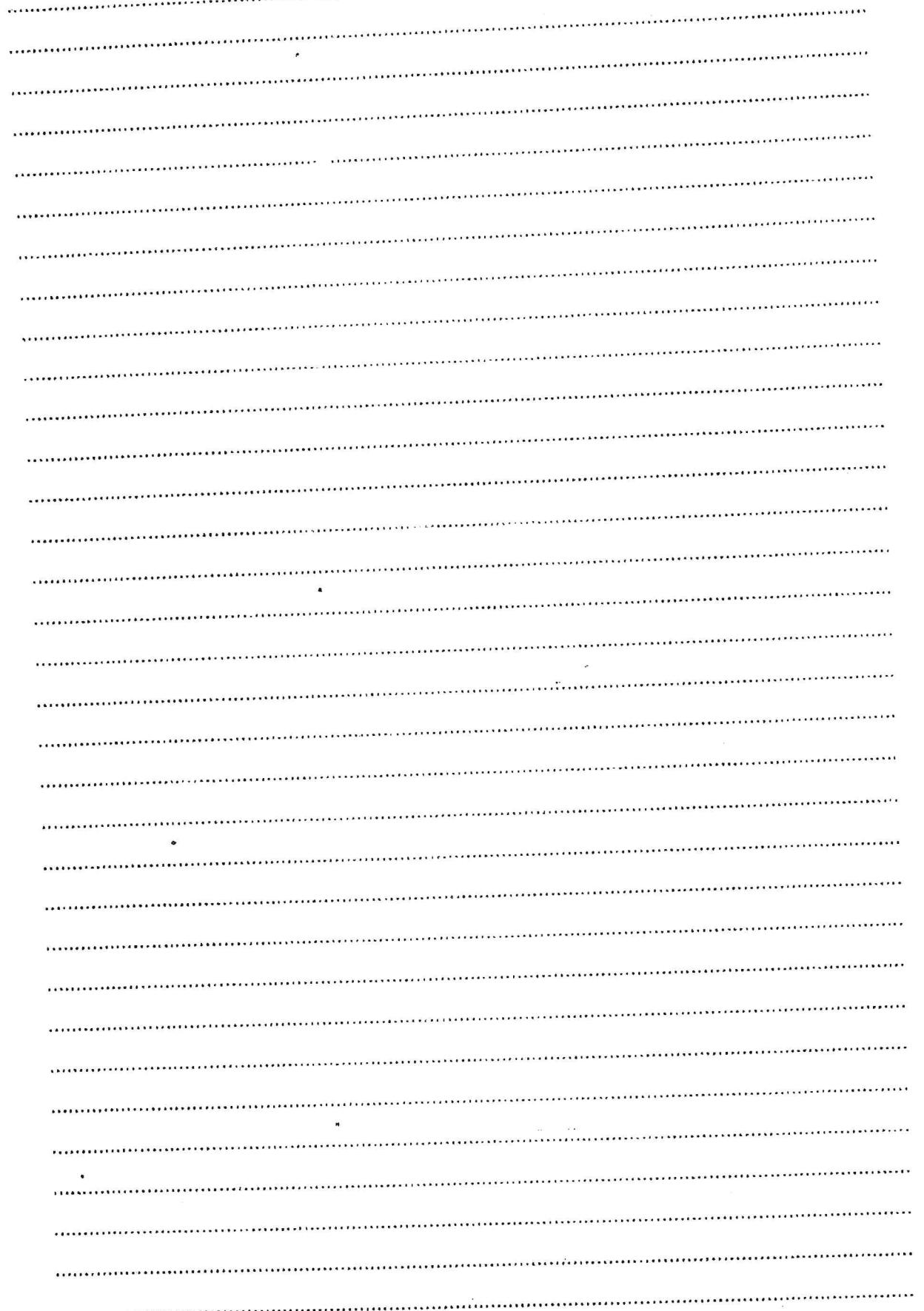
# HAWK 1 EXAMINATIONS 2019

*Kenya Certificate of Secondary Education*

312/1
GEOGRAPHY
PAPER 1
MARCH/APRIL 2019
TIME: 2 ¾ HRS

## INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the spaces provided above.
2. This paper has **TWO** sections: A and B.
3. Answer **ALL** the questions in section A. In section B answer QUESTION 6 and any other TWO questions from the section.
4. ALL answers **MUST** be written in the Answer Booklet provided.
5. Do not remove any pages from this booklet.
6. This paper consists of 4 printed pages.
7. Candidates should check to ensure that all pages are printed as indicated and no questions are missing.

1. a) What is long shore drift? (2 mks)

   b) Name three features of wave erosion in the coastal areas. (3 mks)

2. a) Define natural vegetation. (2 mks)

   b) State three characteristics of Mediterranean vegetation. (3 mks)

3. a) State any two reasons why the interior of the earth is still very hot. (2 mks)

   b) State two proofs that the earth is spherical (2 mks)

4. The diagram below represents underground features in a limestone area. Use it to answer question (a)
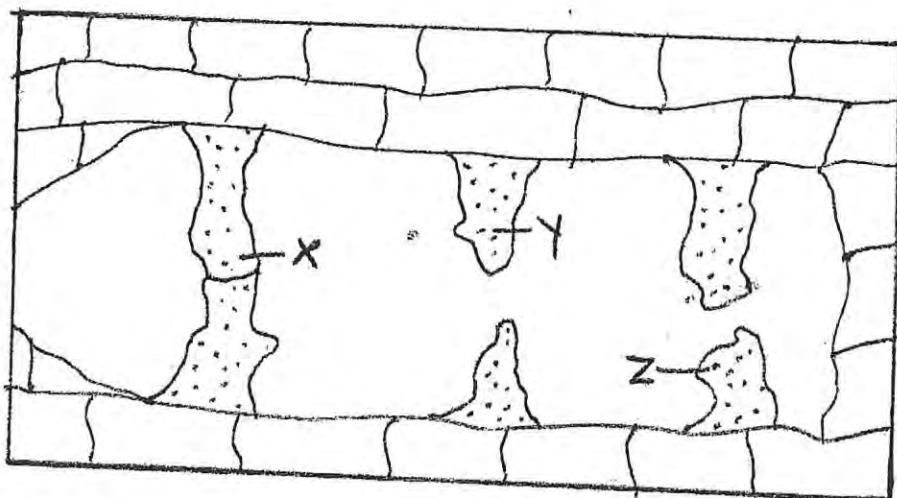


   a) Name the features marked X, Y and Z (3 mks)
   b) Give three factors that influence the development of karst scenery. (3 mks)

5. a) Apart from carbon(IV)oxide, name two other greenhouse gases. (2 mks)

   b) State three possible solutions to aridity and desertification. (3 mks)

SECTION B: Answer question 6 and any other two questions.

6. Study the map of Taita Hills (1:50000) sheet 189/4 provided and answer the following questions.

a) i) Give the latitudinal and longitudinal position of the South East corner of the map extract. (2 mks)

   ii) Identify two methods that have been used to represent relief on the map. (2 mks)

iii) What is the bearing of the Farmers' training center at grid reference 273207 from the Wangnga "B" at grid reference 332263? (2 mks)

b) Draw a rectangle measuring 15cm by 10cm to represent the area enclosed by Easting 33 to 43 and Northing 16 to 22. (1 mk)

On the rectangle, mark and name the following:
(i)      Thicket
(ii)     River Voi (Goshi)                                                    (3 mks)
(iii)    Railway line

c) Citing evidence from the map, give three economic activities carried out in the area covered by the map. (6 mks)

d) Name three types of natural vegetation shown in the area covered by the map. (3 mks)

e) Describe the drainage of the area covered by the map. (6 mks)

~   Outline three processes through which ice moves. (3mks)

b) Explain three factors that influence glacial erosion. (6mks)

c) Study the diagram below of a glaciated highland and use it to answer questions c (i) and (ii).
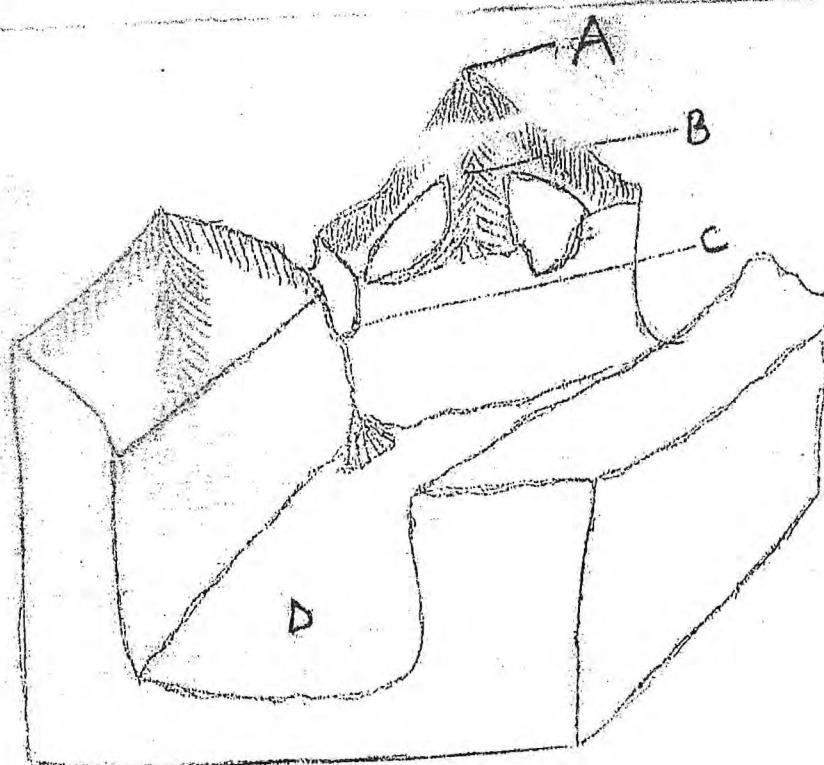


i)      Name the features marked A, B, C and D.                          (4 mks)

3 |

ii)      Describe how features A and D were formed.                     (6 mks)

d) Suppose you were to carry out a field study on a glaciated highland:

(i) State two disadvantages of observing as a method of gathering data      (2 mks)

(ii) What challenges are you likely to encounter in the field?            (2 mks)

(iii)Suggest two economic activities you would recommend to the government in this area.
(2 mks)

8. a) (i) Differentiate between weathering and mass wasting.              (2 mks)

(ii) Apart from plants, give three other factors that influence the rate of weathering. (3 mks)

(iii)Explain two ways in which plants cause weathering.                 (4 mks)

b) i)List two types of slow mass wasting apart from soil creep.           (2 mks)

ii) Explain three factors that cause soil creep.                        (6 mks)

c) Explain four effects of mass wasting on the environment.              (8 mks)

9. a) What is folding?                                                  (1 mk)

b) Study the world map below and answer the questions that follow.
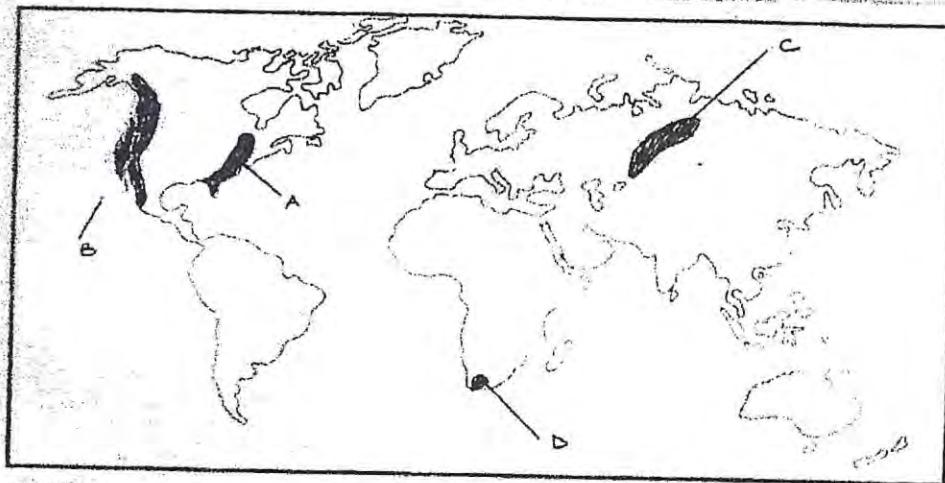


Name the fold mountains found in the area marked A,B, C and D.           ( 4 mks)

c) (i) Describe the formation of fold mountains under the following theories:

•   Contraction theory
•   Convectional current theory.                                        (3 mks)
                                                                        (3 mks)

4 |

(ii) Explain three positive effects of folding to the physical environment. (6 mks)

d) Describe the formation of a rift valley by tensional forces using well labeled diagrams. (6 mks)

e) Name two features resulting from faulting. (2 mks)

10. a) (i) Identify two types of desert surfaces. (2 mks)

(ii) State three factors that have contributed to the development of deserts. (3 mks)

b) Describe two ways in which wind transports its load. (4 mks)

c) By use of a labeled diagram, describe how each of the following features are formed:

(i) Rock pedestal (5 mks)

(ii) Zeugen (5 mks)

d) Form four students of Nyamira Girls carried out a field study on action of water in arid areas.

(i) Name three features they may have identified. (3 mks)

(ii) List three methods they used to record their findings. (3 mks)
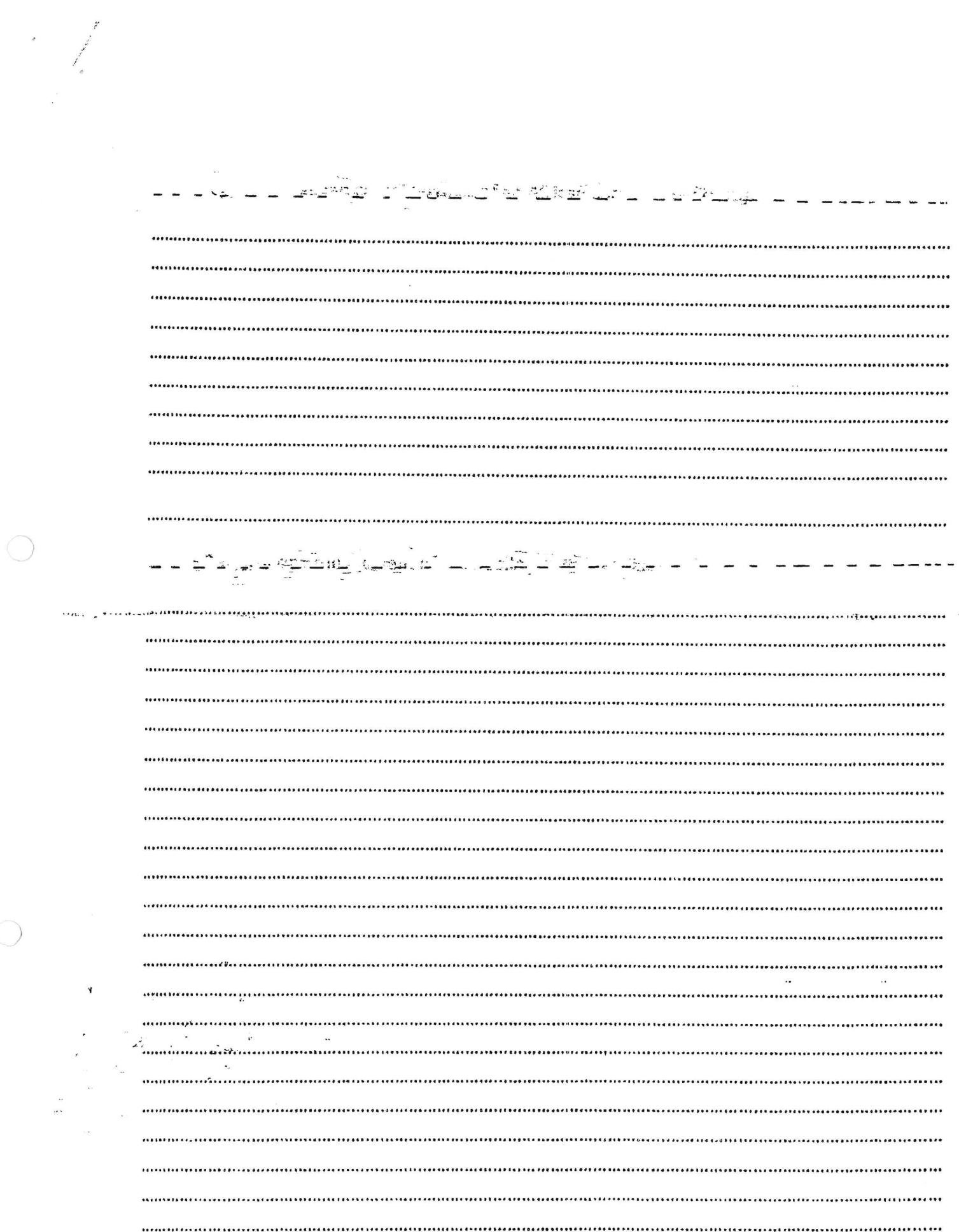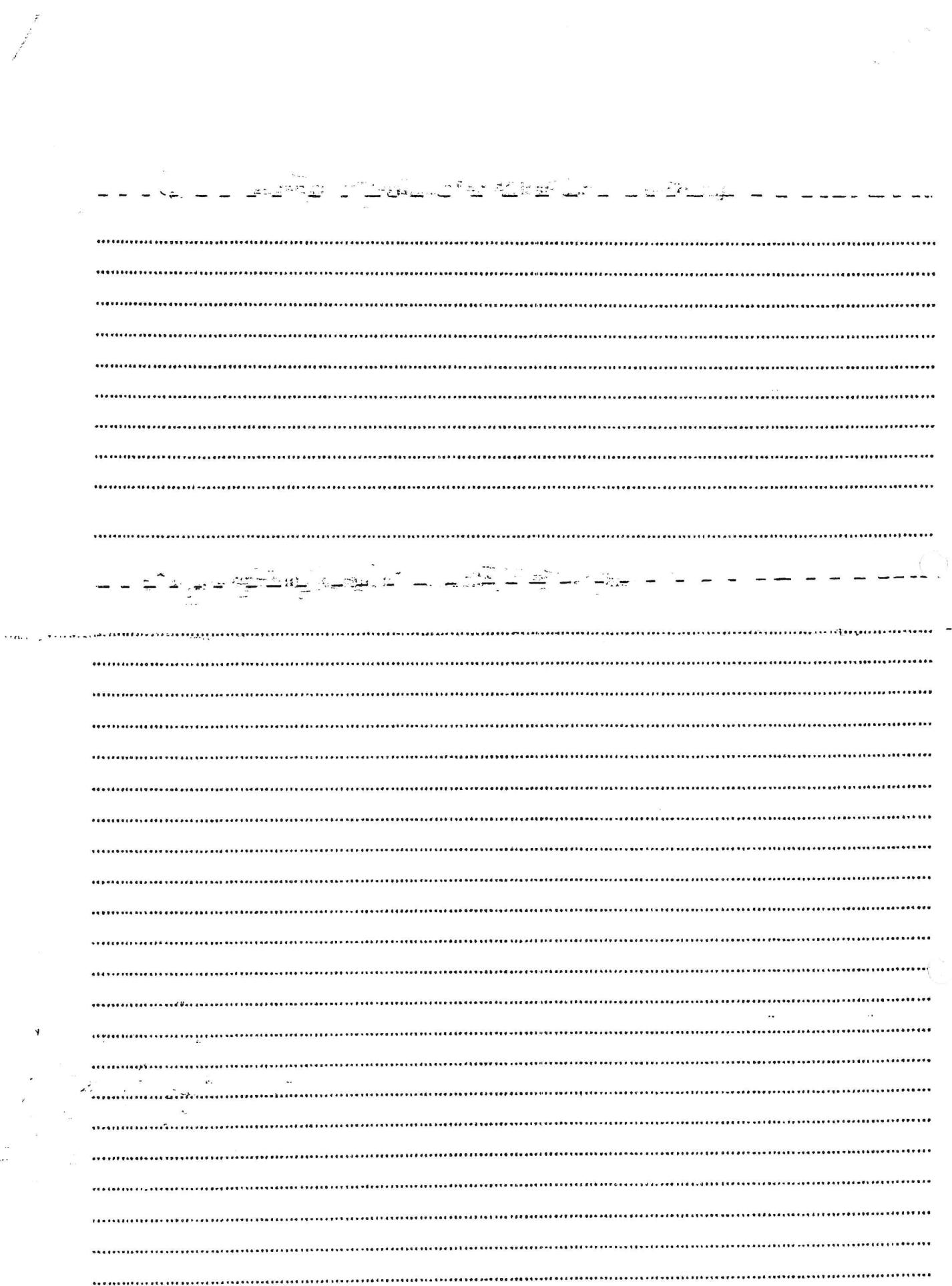
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INDEX NO. ........................... SIGNATURE ...........................

# HAWK 1 EXAMINATIONS 2019

*Kenya Certificate of Secondary Education*

312/2
GEOGRAPHY
PAPER 2
MARCH/APRIL. 2019
TIME: 2 ¾ HRS

## INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the spaces provided above.
2. This paper has TWO sections: A and B.
3. Answer ALL the questions in section A. In section B answer QUESTION 6 and any other TWO questions from the section.
4. ALL answers MUST be written in the Answer Booklet provided.
5. Do not remove any pages from this booklet.
6. This paper consists of 4 printed pages.
7. Candidates should check to ensure that all pages are printed as indicated and no questions are missing.

# SECTION A

## Answer ALL questions in this section

1. a) Name two minerals that occur as placer deposits. (2mks)

   b) Give three problems associated with deep shaft method of mining. (3mks)

2. a) Distinguish between a forest and forestry. (2mks)

   b) Outline three characteristics of tropical hardwood forests. (3mks)

3. a) A part from flood. name two climatic hazards that occur in Kenya. (2mks)

   b) State three measures used to control floods in Kenya. (3mks)

4. a) Name two other dairy products apart from fresh milk. (2mks)

   b) State three physical factors that favour dairy farming in the Kenya highlands. (3mks)

5. a) Identify two types of environment. (2mks)

   b) Mention three areas covered under human and economic geography. (3mks)

# SECTION B

## ANSWER QUESTION 6 AND ANY OTHER TWO QUESTIONS FROM THIS SECTION

6. Study the photograph below and use it to answer question (6)

a) i) Name the type of photograph shown above (1mk)

   ii) What time of the day was the photography taken if the camera was held facing south? (1mk)

   iii) Draw a rectangle measuring 16cm by 9cm to represent the area of the photograph. On it sketch and label the main features shown on the photograph. (5mks)

   iv) Describe the landscape of the area represented by the photograph. (3mks)

b) i) Identify two countries in the Rift Valley where ranching is practiced. (2mks)

   ii) Name one exotic breed of beef cattle reared in Kenya. (1mk)

c) State four physical factors which favour beef farmig in Argentina. (4mks)

d) Explain four benefits of beef farming to the economy of Argentina. (8mks)

7. a) Define the following terms:

   i) Fishing (1mk)

   ii) Fisheries (1mk)

b) The map below shows major world fishing grounds
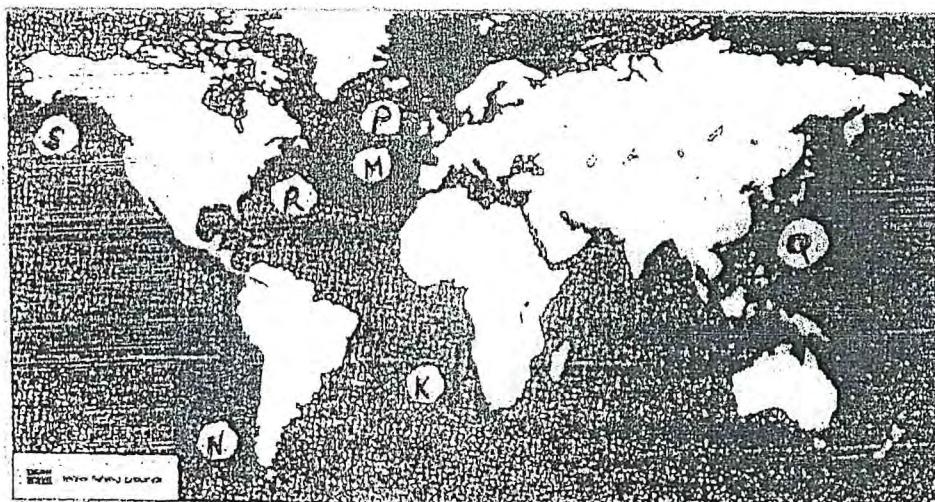
i) Identify the fishing grounds marked P, Q, R and S. (4mks)

ii) Ocean currents marked M and N. (2mks)

c) i) Apart from L. Victoria, name two other inland fishing ground in Kenya. (2mks)

ii) Explain three factors favoring fishing on L. Victoria. (6mks)

d) State three measures the government of Kenya is undertaking to encourage fish – eating culture (4mks)

8. a) State three physical conditions that favour coffee growing in Kenya. (3mks)

b) Describe coffee farming from land preparation to the factory. (7mks)

c) Explain three problems facing coffee farming in Kenya. (6mks)

d) Your class under took field study in a coffee plantation.

i) State our ways you may have prepared for the study. (4mks)

ii) Name two data collecting methods you may use. (2mks)

iii) State three follow up activities you would undertake. (3mks)

9. a) i) State three physical conditions that may discourage setting of game Reserves and parks. (3mks)

ii) Name one game ranch in Kenya (1mk)

b) State the significance of wildlife to Kenya. (5mks)

i) Differentiate between domestic and international tourism. (2mks)

ii) Explain four factors that hinder development of domestic tourism in Kenya. (8mks)

iii) State four problems experienced by the Kenya government in its efforts to conserve wildlife. (4mks)

iv) Explain three reasons why Switzerland receives more tourists than Kenya. (6mks)

10. a) Differentiate between land rehabilitation and reclamation. (2mks)

b) i) Besides irrigation state five methods used to reclaim land in Kenya. (5mks)

ii) Explain four benefits which Kenya gets from irrigation farming. (8mks)

c) i) Define the term polder. (2mks)

ii) Explain four benefits of land reclamation in Netherlands. (8mks)
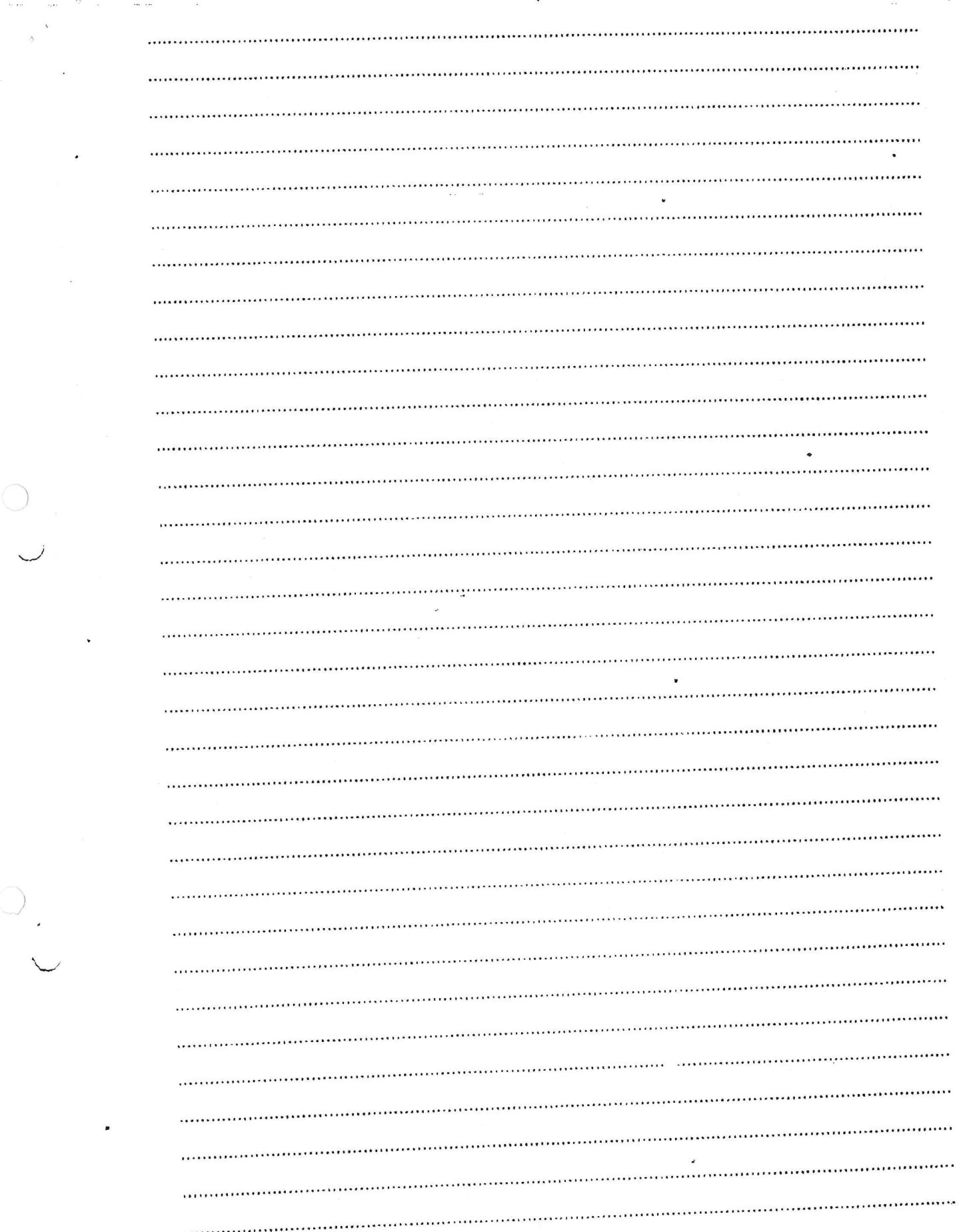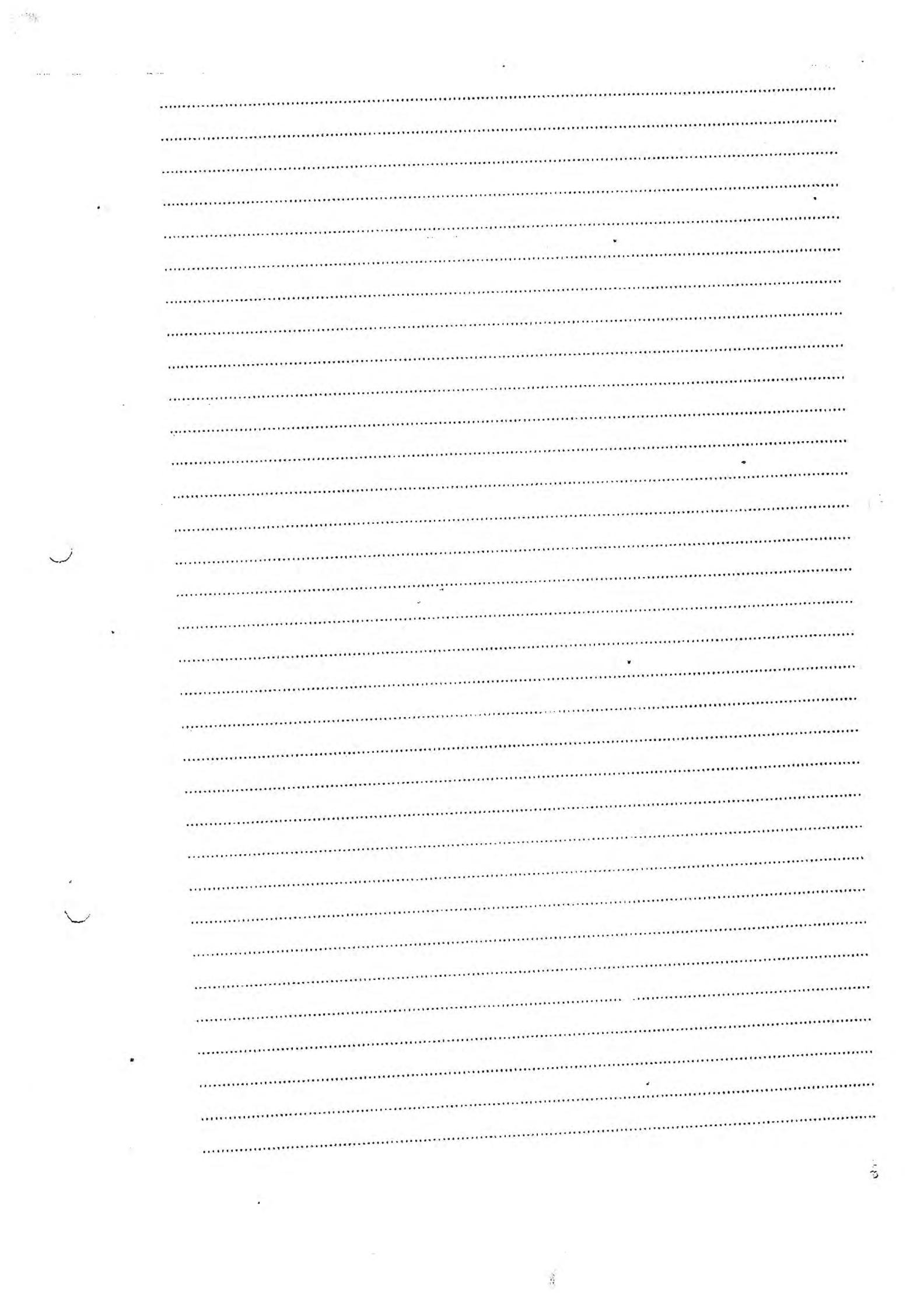
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SCHOOL: ............................................. SIGN: ..............................DATE: ...........................

313/1

CHRISTIAN RELIGIOUS EDUCATION

TIME: 2½ HRS.

MARCH, 2019



SOARING HIGH

# HAWK -1 JOINT EXAMINATIONS- 2019
## Kenya Certificate of Secondary Education (K C S E)

### Instructions to Candidates.

1. This paper consists of *six* questions.
2. Answer any *FIVE* questions.

### FOR EXAMINER'S USE ONLY

| Questions | 1 | 2 | 3 | 4 | 5 | 6 | Total |
|---|---|---|---|---|---|---|---|
| Candidate's Score | | | | | | | |

1. a) Identify any *seven* literary forms used to write Bible. (7mks)
   b) Outline the translation of the Bible from original language to local languages. (8mks)
   c) Give *five* reasons why Christians read the Bible. (5mks)

2. a) Describe the covenant ceremony between God and Abraham in Genesis 15: 1 – 19. (7mks)
   b) Identify *seven* ways in which Abraham demonstrated his faith in God. (7mks)
   c) State ways in which Christians identify themselves in the society today. (5mks)

3. a) Outline the roles of judges in Israel. (7mks)
   b) Identify seven ways which shows that Solomon turned away from covenant way. (7mks)
   c) Explain ways in which Christians fight corruption in Kenya today. (6mks)

4. a) State the similarities between the prophets in the Old Testament and Traditional African prophets (7mks)
   b) Describe the socio-economic background to prophet Amos. (6mks)
   c) Outline the *seven* social evils that Amos would condemned in Kenya today. (8mks)

5. a) Outline the problems that Nehemiah encountered as the governor of Judah. (7mks)
   b) Identify *seven* occasions when Nehemiah prayed. (7mks)
   c) State the importance of prayer in the life of a Christian. (6mks)

6. a) Outline the roles of the living towards ancestors. (6mks)
   b) Explain African understanding of community. (7mks)
   c) Identify *seven* moral values inculcated during marriage rite. (7mks)

NAME:................................................................ INDEX NO. ...............................

SCHOOL: ........................................... SIGN: ..................................DATE: ............................

313/2

CHRISTIAN RELIGIOUS EDUCATION

TIME: 2½ HRS.

March, 2019

# HAWK -1 JOINT EXAMINATIONS- 2019
### Kenya Certificate of Secondary Education (K C S E)

## Instructions to Candidates.

1. This paper consists of *six* questions.
2. Answer any *FIVE* questions.

### FOR EXAMINER'S USE ONLY

| Questions | 1 | 2 | 3 | 4 | 5 | 6 | Total |
|-----------|---|---|---|---|---|---|-------|
| Candidate's Score | | | | | | | |

1

1. a) Outline how Jesus fulfilled Isaiah's prophecies about the Messiah. (7mks)
   b) State *six* missions of John the Baptist as highlighted in the Angel Gabriel message to Zachariah. (8mks)
   c) How are Christians continuing with the mission of Jesus? (5mks)

2. a) Give *six* reasons why Jesus was rejected at Nazareth. (6mks)
   b) Describe the healing of the Gerasene Demoniac Lk. 8: 26 – 39. (8mks)
   c) State *six* lessons that Christians learn from healing of the Gerasene Demoniac. (6mks)

3. a) State *six* reasons why Jesus wept during his triumphant entry into Jerusalem. (6mks)
   b) Identify how Jesus revealed himself to the two disciples on their way to Emmaus. (6mks)
   c) Mention *ways* in which church leaders can respond to those who oppose them during their ministerial duties. (8mks)

4. a) Outline the gifts of the Holy Spirit as taught by st.Paul according to 1st Corinthians 12:7-11. (8mks)
   b) Explain how unity of believers is expressed in the phrase "Bride" from 2nd Corinthians 12: 2, Revelation 21: 1-12. (7mks)
   c) Outline *factors* that threaten unity among Christians today. (5mks)

5. a) Identify *five* sources of Christian ethics. (5mks)
   b) State how leisure time is important to an individual. (8mks)
   c) Give seven examples of how leisure is being misused in the society today (7mks)

6. a) Highlight the various ways through which wealth is acquired in Traditional African Societies. (7mks)
   b) Explain the negative effects of the introduction of money economy in the Traditional African Community. (7mks)
   c) How can Christians in Kenya help to narrow the gap between the rich and the poor? (6mks)
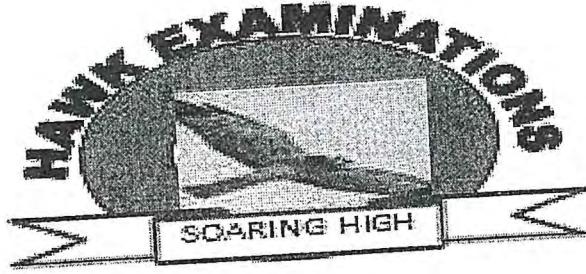
443/1
AGRICULTURE
PAPER ONE
(Theory)

## March. 2019 - 2 hours

.................................................................Index Number.............................

Name.................................................................................................

Candidate's Signature.................................Date.................................

## Instructions to candidates

(a) Write your name and index number in the spaces provided above
(b) Sign and write the date of examination in the spaces provided above
(c) This paper consists of *three* sections : A , B and C .4
8(d) Answer all the questions in sections A and B.
(e) Answer any two questions in section C.
(f) *This paper consists of 12 printed pages.*
(g) Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.
(h) Candidates should answer all the questions in English.

### For Examiner's Use Only

| Section | | Maxim.um Score | Candidate's Score |
|---------|---|---------------|-------------------|
| A | | 30 | |
| B | | 20 | |
| C | | 20 | |
| | | 20 | |
| | Total Score | 90 | |

# SECTION A (30 marks)

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

1. What is pastoralism ? (1mk)

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2. List four classes of crop pests (2mks)

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3. Give two ways in which crop rotation maximizes usage of crop nutrients in the soil (1mk)

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4. Name three materials used in the propagation of pineaples (1 1/2 mks)

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5. Give the meaning of the following terms in crop production

(a) Topping (1mk)

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(b) Defoliation (1mk)

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(c) Mixed cropping (1mk)

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6. State five effects of weeds on pastures (2½mks)

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7. List four methods of controlling pests in a maize plantation (2mks)

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8. Give four precautions in the harvesting of cotton (2mks)

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9. List five records kept by a fingure millet farmer (2½mks)

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(3mks)

10. State six factors which may encourage soil erosion

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(21/2mks)

11. Give five disadvantages of land fragmentation in Kenya

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(21/2mks)

12. State five reasons for primary tillage

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(11/2mks)

13. Give three limitations of sprinkler irrigation system

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14. How do the following practices lead to loss of soil fertility ?

(2mks)

(a) Monocropping

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(b)  Accumulation of salts                                                                (1mk)

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# SECTION B (20marks)

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

15.  Below is an illustration of a compost manure preparation.
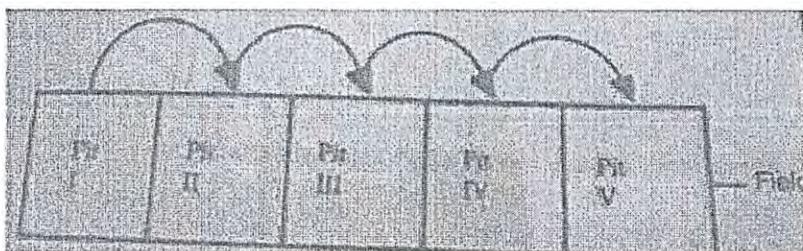


(a)  Identify the method of compost manure preparation shown above          (1mk)

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(b)  Give four factors that limit the use of compost manure                      (4mks)

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(c)  Why should the layer of top soil be added during compost manure preparation? (1mk)

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16. The diagram below shows a field practice



Stick ————

String ————
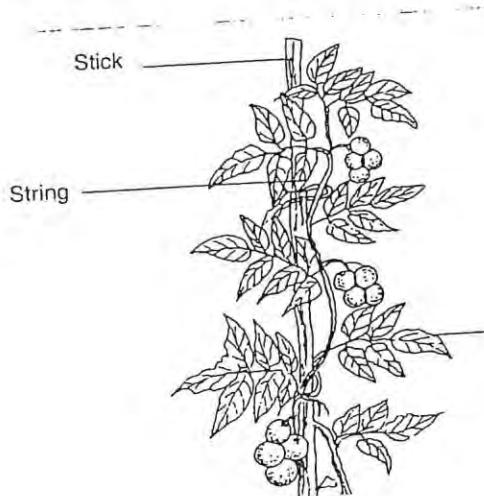
(a) Identify the field practice shown                                      (1mk)

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b)Name the group of diseases controlled through the practice               (1mk)

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(c) Other than disease control, give three reasons for the practice        (3mks)

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17. A farmer has a piece of land on which he can grow maize,wheat and barley.The yields and the selling prices of the three crops are shown below.

| Crop | Yield /90Kg bag | Selling price K.sh/90kg bag |
|------|-----------------|-----------------------------|
| Maize | 2000 | 750 |
| Wheat | 1400 | 900 |

| Barley | 1500 | 100.. |
| | | 9900 |

Assuming the cost of producing any of the crops is the same,

   (a)  Identify the most profitable crop to produce                                    (2mks)

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(b)  What is the farmers opportunity cost                                             (1mk)

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

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18.  Study the diagram of soil erosion by water below and use it to answer the questions that

follow.



Rain water washes
soil down the slope
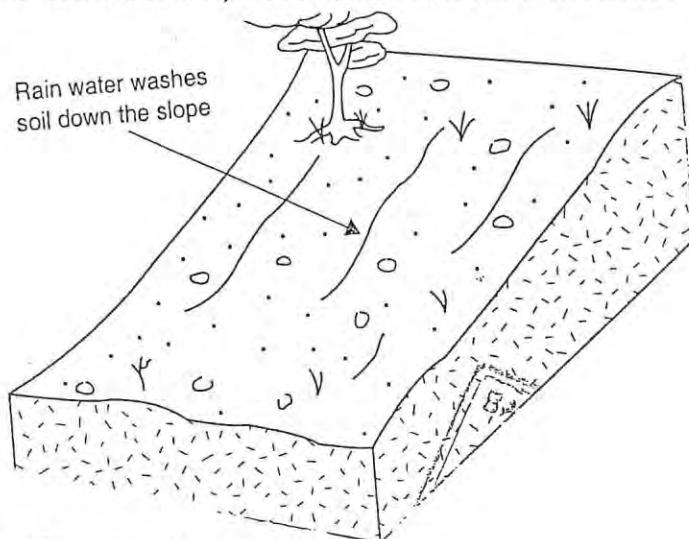
   (a)  Identify the type of erosion illustrated above                                  (1mk)

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   (b)  Give two ways of controlling the type of erosion in (a) above                  (2mks)

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(c) Describe how this type of erosion occurs (2mks)

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# SECTION C ( 40marks)
Answer any **two** questions in this section in the spaces provided


19.(a) Explain five reasons for land consolidation in Kenya (10mks)

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(b) Describe the production of beans under the sub-headings

(i) Field managementl (5mks)

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    (ii) Weeding                                          (5mks)

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20.(a)   Explain five methods of controlling water pollution         (10mks)

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(b) Give five benefits of using seeds as planting materials (5mks)

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(c) State five characteristics of small scale farmig system (5mks)

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21. (a) Describe how the following weather elements influence agriculture

(i). Light duration (2mks)

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(ii) Rainfall intensity (2mks)

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(b) Decribe six cultural methods of controlling crop diseases (12mks)

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(c) State four roles of magnesium in crops (4mks)

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11

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

Candidate's signature: ..........

443/2
AGRICULTURE
PAPER 2
(THEORY)
2 HOURS

## Instructions to candidates

a) Write your name and index number in the spaces provided above.
b) Sign and write the date of examination in the spaces provided above.
c) This paper consists of **three** sections: **A, B** and **C**.
d) Answer all the questions in sections and **B**.
e) Answer any two questions in section **C**.
f) All answers should be written in the spaces provided.
g) This paper consists of 10 printed pages.
h) Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.
i) Candidates should answer the questions in English

### For Examiner's Use Only

| Section | Question | Maximum score | Candidate's Score |
|---------|----------|---------------|-------------------|
| A | 1-16 | 30 | |
| B | 17-20 | 20 | |
| C | 21-23 | 20 | |
| | | 20 | |
| | | 90 | |

1

# SECTION A (30 MARKS )

Answer all the questions in this section in the spaces provided

1. Give the term used to describe the following (2mks)

(a) Mature female rabbit

(b) Mature male goat

(c) Castrated male bird

(d) Young one of cattle

2. Give three reasons for flushing in sheep management. (11/2mks)

3. Give five methods of maintaining farm tools and equipment (21/2mks)

4. State four disadvantages of natural mating in cattle (2mks)

5. Name the mineral deficiency symptom described below

(a) Swayback in lambs

(b) Anaemia in piglets

6. List three maintenance practices of a green house

7. Give three reasons for feeding bees                    (11/2mks)

8. Name three fresh warm water fish species reared in kenya     (11/2mks)

9. Give four economic importance of livestock production in kenya     (2mks)

10. Define the following terms in livestock production

(a) Notifiable disease                                     (1mk)

(b) Mortality rate                                         (1mk)

(c) Mothering ability                                      (1mk)

11. Give five roles of water in livestock nutrition        (21/2mks)

3

12. Outline four non chemical methods of controlling ticks (2mks)

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13. Give four reasons for inbreeding (2mks)

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14. Give three parts of farm buildings reinforced with concrete (11/2mks)

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15. Name two methods of computing livestock rations (1mk)

_____
_____

16. Explain the meaning of the following terms in livestock production

(a) Prepotency (1mk)

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_____
_____

(b) Heterosis (1mk)

_____
_____
_____

(c) Prolificacy (1mk)

17. Compute a 200kg ration for layers containing 20% DCP using maize (7%DCD) and cotton seedcake (24%DCP) using the Pearson's square method. (5mks)

18. The illustration below shows different livestock families. Study it and answer the questions that follow

Zebu Family

Sire          Dam

Hereford Family
Harvested Family
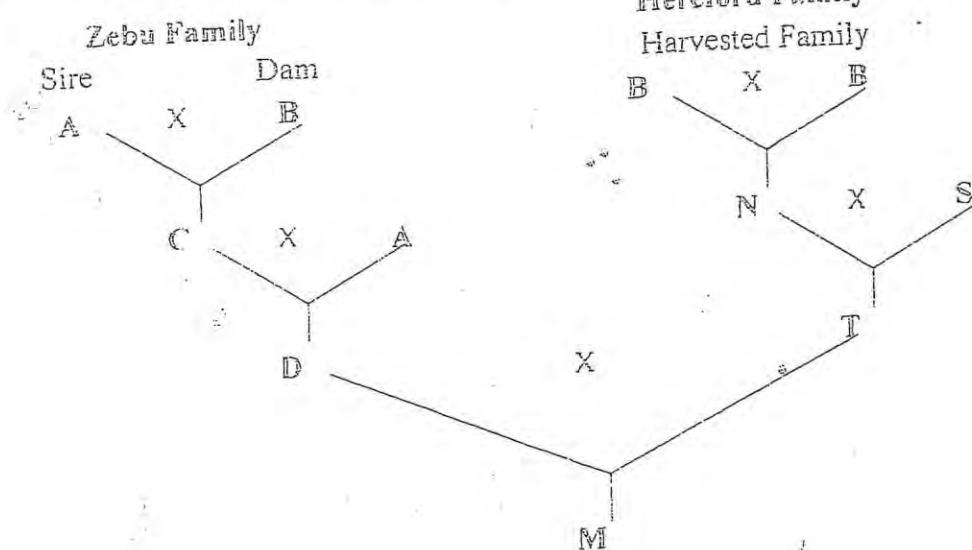
(a) Identify the breeding system

(1/2mks)

(i) C and A

(ii) D and T                                                                    (1/2mks)

_____
_____

(b) Give two advantages of the breeding system in(a) (ii) above                 (2mks)

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(c) Give two reasons why the breeding system in (a) (i) is not encouraged in dairy cattle   (2mks)

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19. Study the illustration of a roof below and answer the questions that follow.
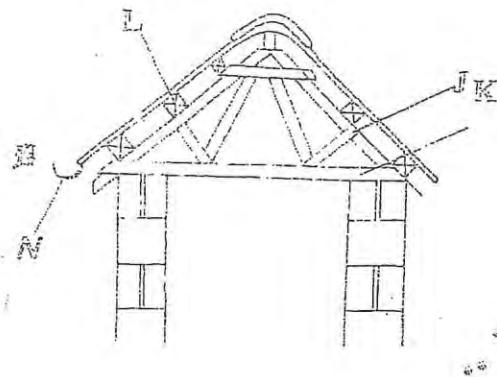


(a) Identify the parts

(i) J                                                                          (1mk)

_____

(ii) K                                                                         (1mk)

_____

(b) State the function of the part

(i) L                                                                         ( 1mk)

_____

(ii) N _____ (1mk)

_____

(iii) Name one material suitable for the part L (1mk)

_____

20. The diagram below shows the digestive system of a ruminant.
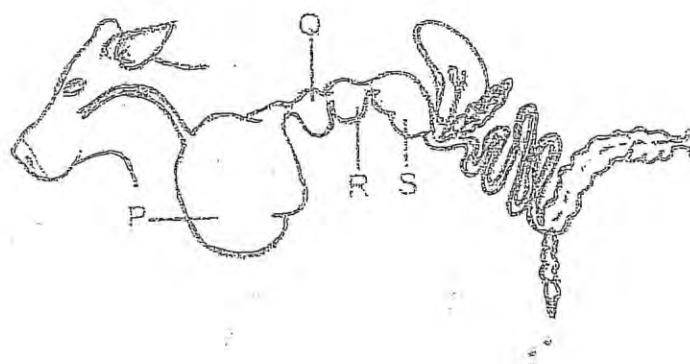


(a) Identify the parts

(i) Q (1mk)

_____
_____
_____
                                                    (1mk)
(ii) R
_____
_____
                                                    (3mks)
(b).Describe food digestion process in the part P
_____
_____
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## SECTION C (40MARKS)
**Answer any two questions in this section in the spaces provided**                    (12mks)
21.(a) State six differences between ruminants and non ruminants

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                                                    (8mks)
(b) Describe the management of a broody hen in natural incubation
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22. (a) Explain six general methods of controlling livestock diseases
(12mks)

(b)Explain four factors considered in the selection of construction materials          (8mks)

23. (a) Describe the life cycle of a two host tick          (10mks)

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(b) Describe the egg formation in the poultry reproductive system          (10mks)

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SOARING HIGH

**565/2**

**BUSINESS STUDIES**

**TIME: 2 HOURS**

# HAWK 1, 2019

## INSTRUCTIONS TO CANDIDATES

a) Write your Name, Stream Admission Number and Index Number in the spaces provided above.

b) Answer **Any five** the questions.

c) **ALL** answers must be written in the spaces provided in this booklet.

d) Candidates should answer **All** questions in English.

e) This paper consist of **3** printed pages.

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

| Questions | | Candidates score |
|---|---|---|
| 1 | a | |
| | b | |
| 2 | a | |
| | b | |
| 3 | a | |
| | b | |
| 4 | a | |
| | b | |
| 5 | a | |
| | b | |
| 6 | a | |
| | b | |
| **Total** | | |

1.(a) Explain **five** benefits that a firm may enjoy by preparing a business plan. (10marks)

(b). Matinda company is planning to launch a new product in the market. Explain five factors that should be considered by the company when choosing an appropriate media through which to advertise its products. (10mks)

2 (a). Explain **five** benefits that the Kenyan government may get by privatizing a state corporation. (10mks)

(b). The following balance sheet was obtained from Adhiwo traders on 31/12/2014

Adhiwo
Balance sheet
As at 31/12/2014

| Land | 100,000 | Capital | 140,000 |
|------|---------|---------|---------|
| Cash | 30,000 | Creditors | 79,000 |
| Furniture | 10,000 | | |
| Stock | 60,000 | | |
| Debtors | 19,000 | | |
| **219,000** | | **219,000** | |

The following transactions took place in the first week of January 2015

Jan 1   Bought stock on credit sh. 15,000

Jan 3   A debtor paid cash sh. 9,000

Jan 4   Repaired furniture by cash sh. 2,000

Jan 5   Owner took cash sh. 1,000 for his leisure activity

Jan 6   Banked cash sh. 6,000

Required: Open ledger accounts and record the above transactions.                    (10mks)

3. (a) Explain **five** mailing services offered by the post office that facilitates communication. (10mks)

(b) Explain **five** problems likely to be experienced when measuring national income using the expenditure approach.                                                          (10mks)

4. (a) E-commerce is a recent trend in business. Outline **five** benefits of using this method to carry out business activities. (10mks)

(b). Explain **five** difference between assurance and insurance. (10mks)

5. (a) Explain **five** advantages of expanding the pipeline network from Nairobi to Northern Kenya. (10mks)

(b) The following transactions relate to Kambaa traders for the month of February 2108.

Feb 1: Balance b/d cash 200,000, bank 15,000 Cr

2: Cash sales 145,000

3: Paid motor expenses in cash 2,000

4: Paid salaries in cash sh. 50,000

5: Bought stationery in cash sh 1,000

14. Settled Omega's account of sh. 60,000 by cheque less 3% cash discount.

16: Received a cheque of sh. 84,600 from Adero after deducting 10% cash discount.

17: Cash sales paid directly into the bank sh. 34,000.

18: Credit purchases of sh. 10,000

25: Received a cheque of sh 19,000 from Onyango having allowed him a cash discount of sh. 1,000

31: Banked all cash except sh. 4,200

Required: Prepare a duly balanced three column cash book (10mks)

6. (a) Highlight **five** reasons why a person may prefer to buy goods from a supermarket rather than from a small scale retail shop. (10mks)

(b) Explain **five** circumstances under which the suppliers of a commodity may not increase their supply even if the price increases. (10mks)
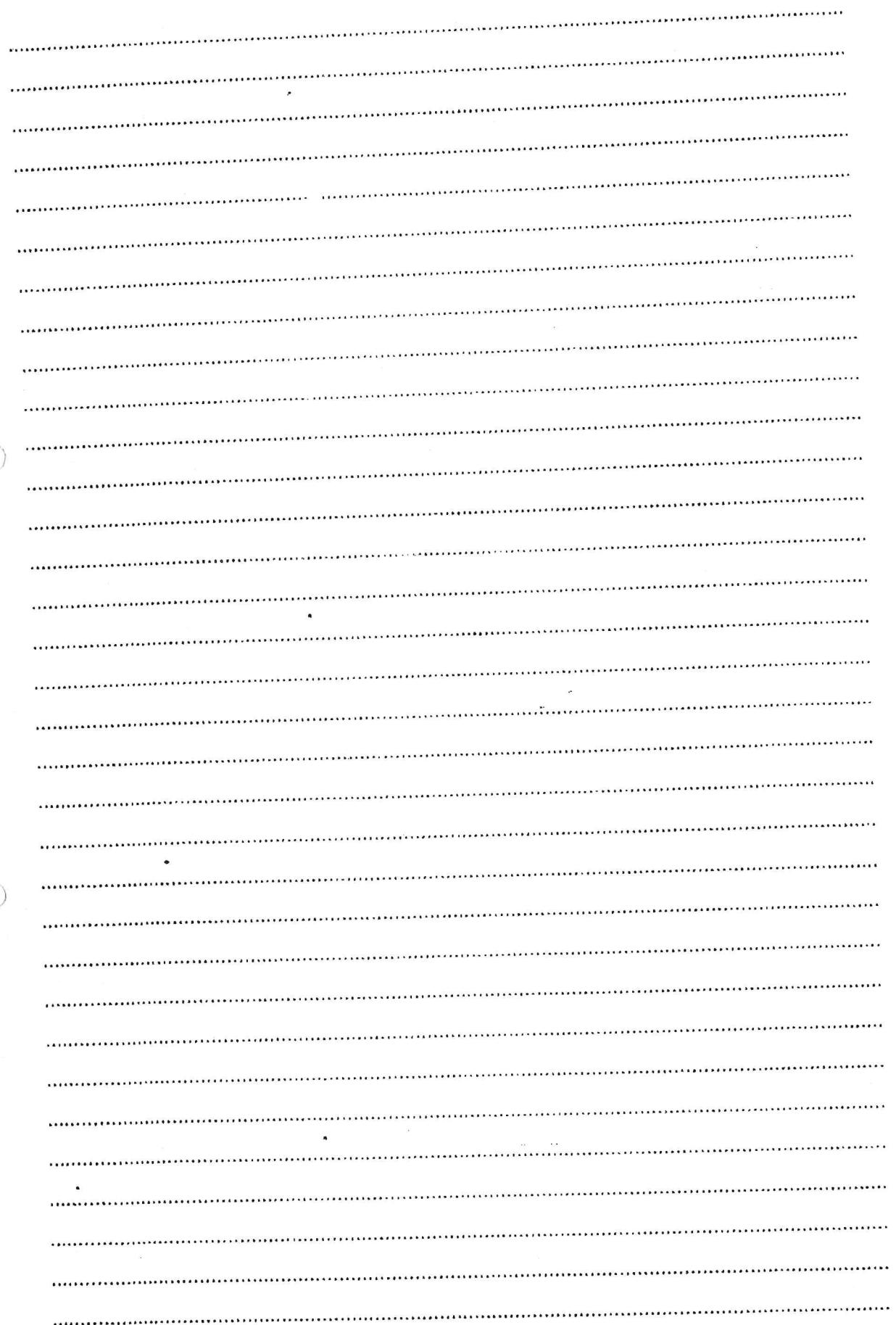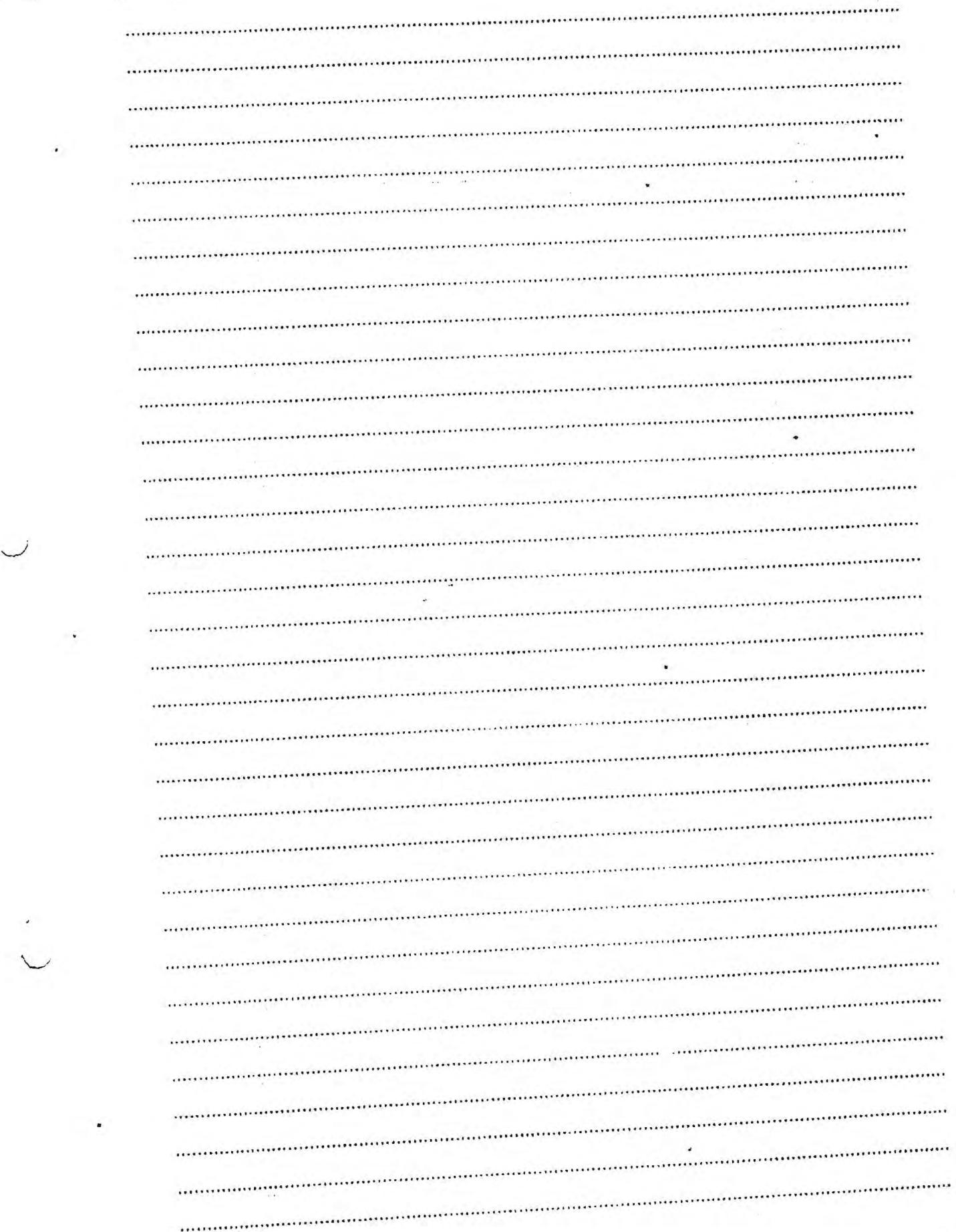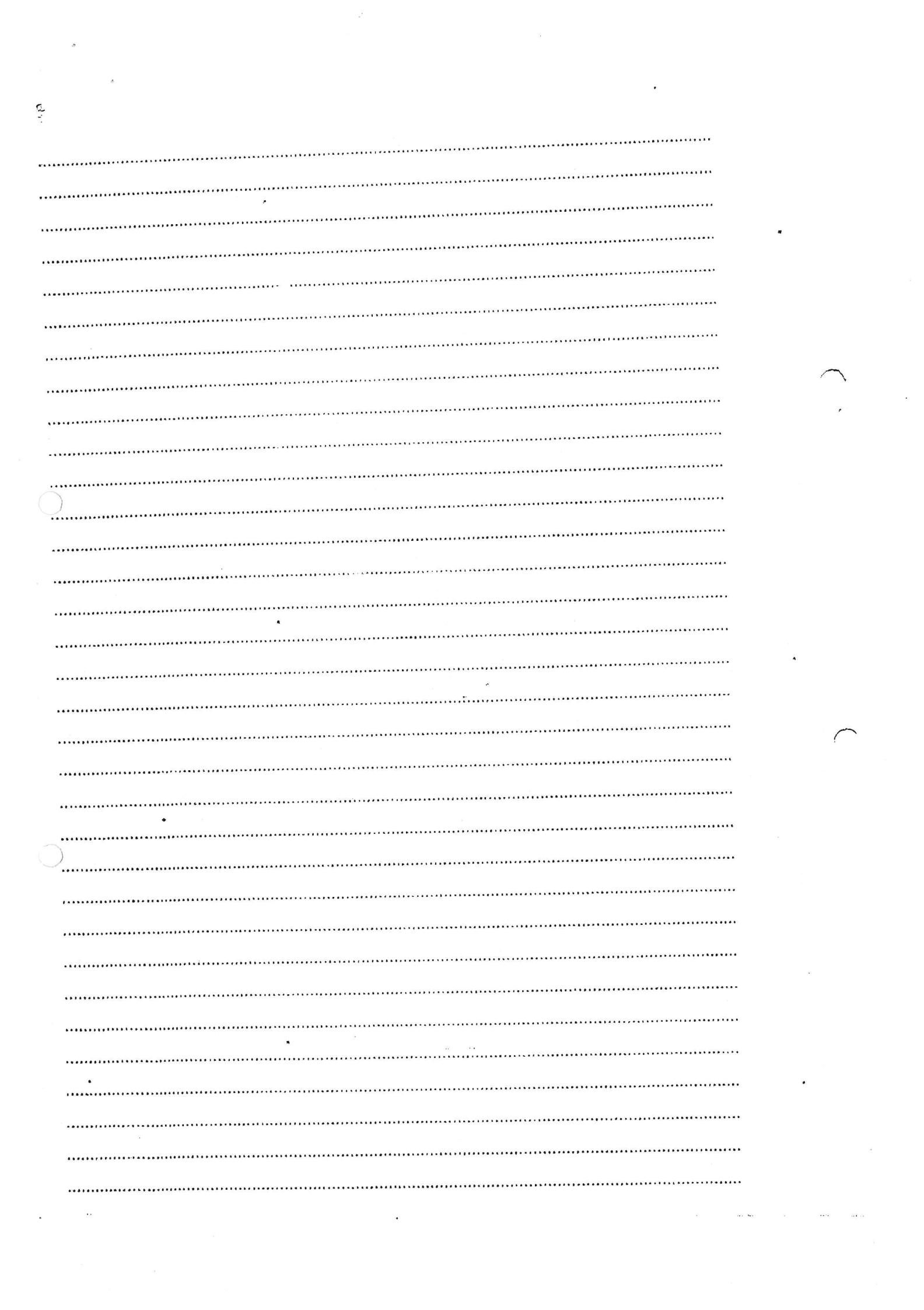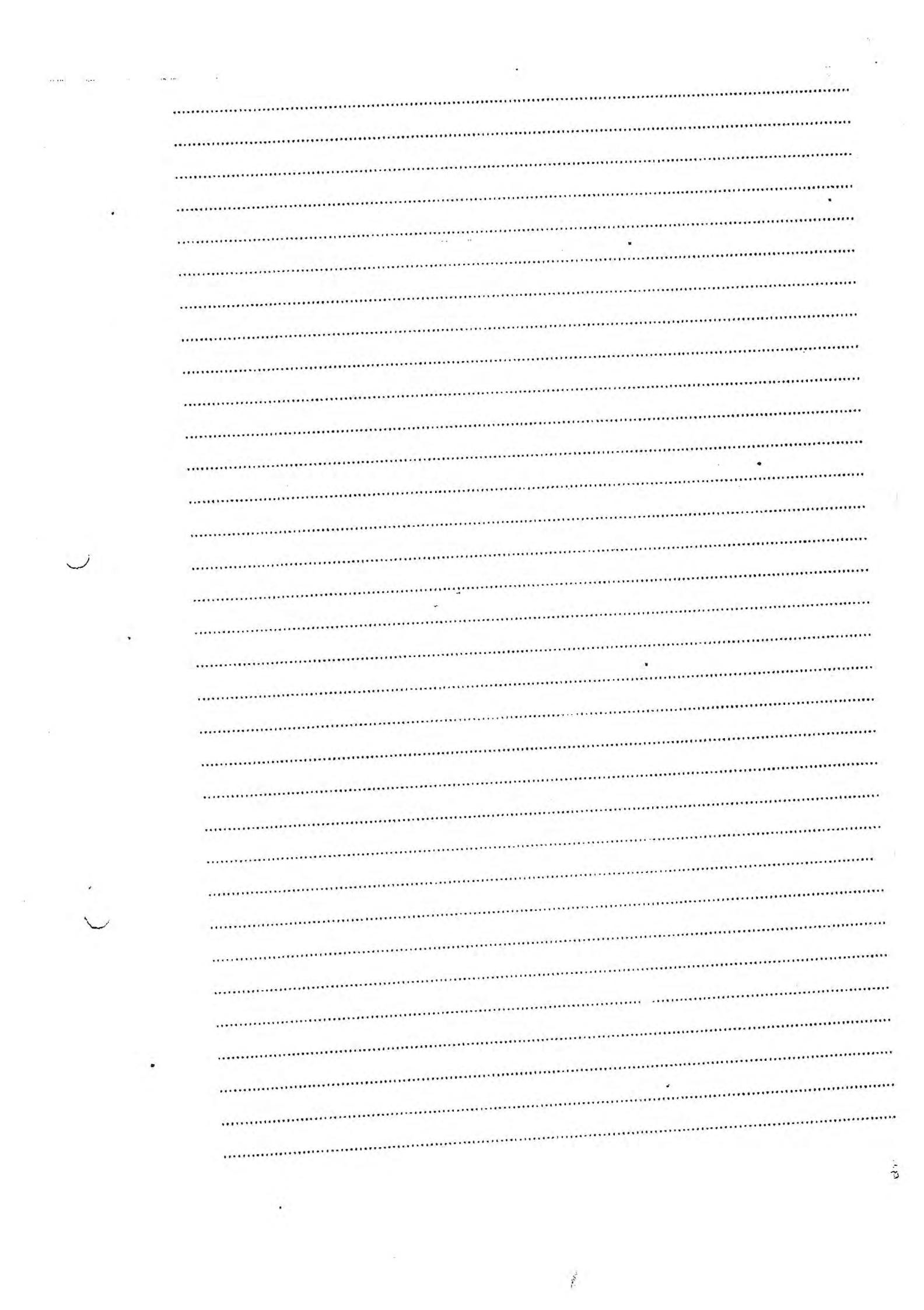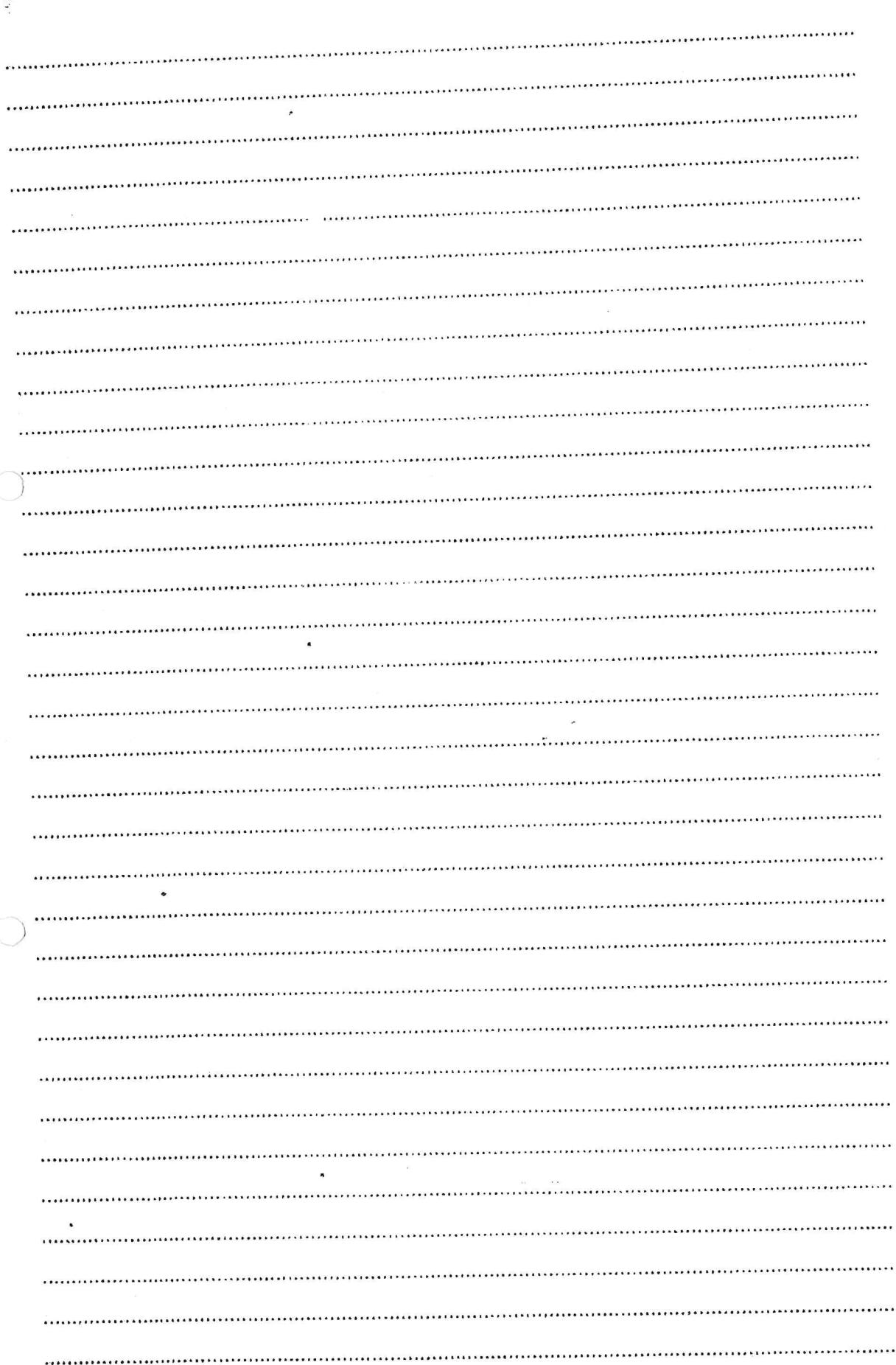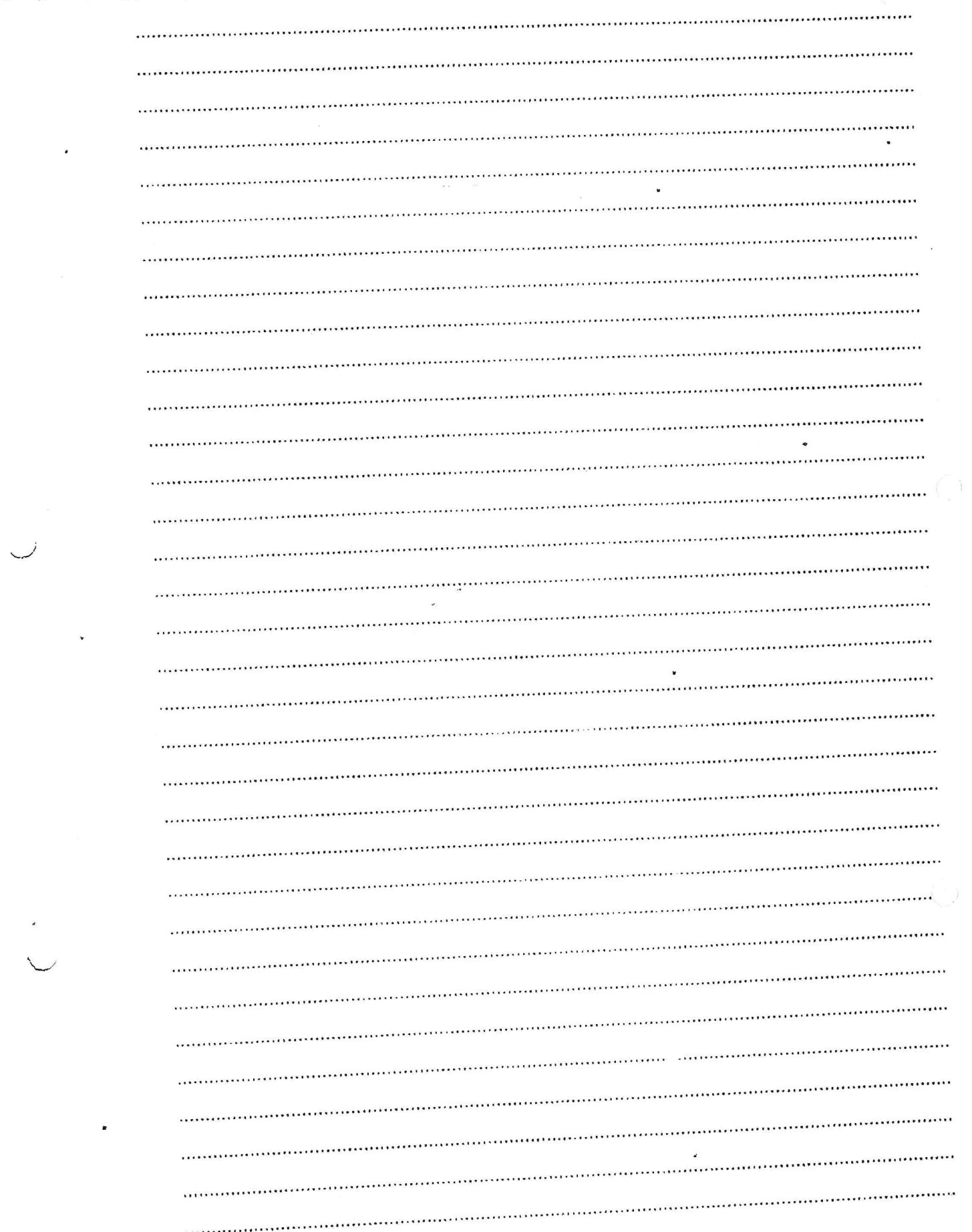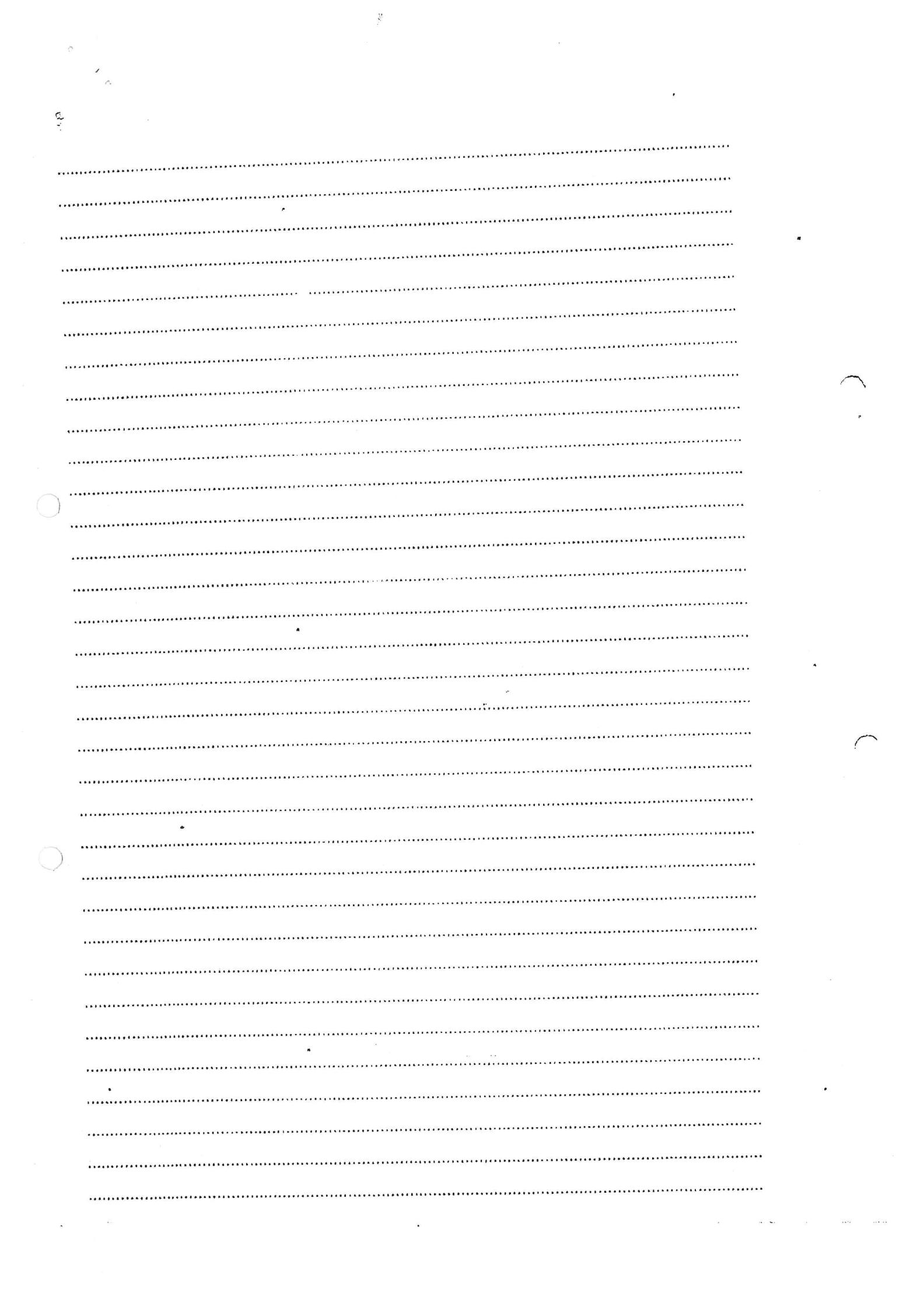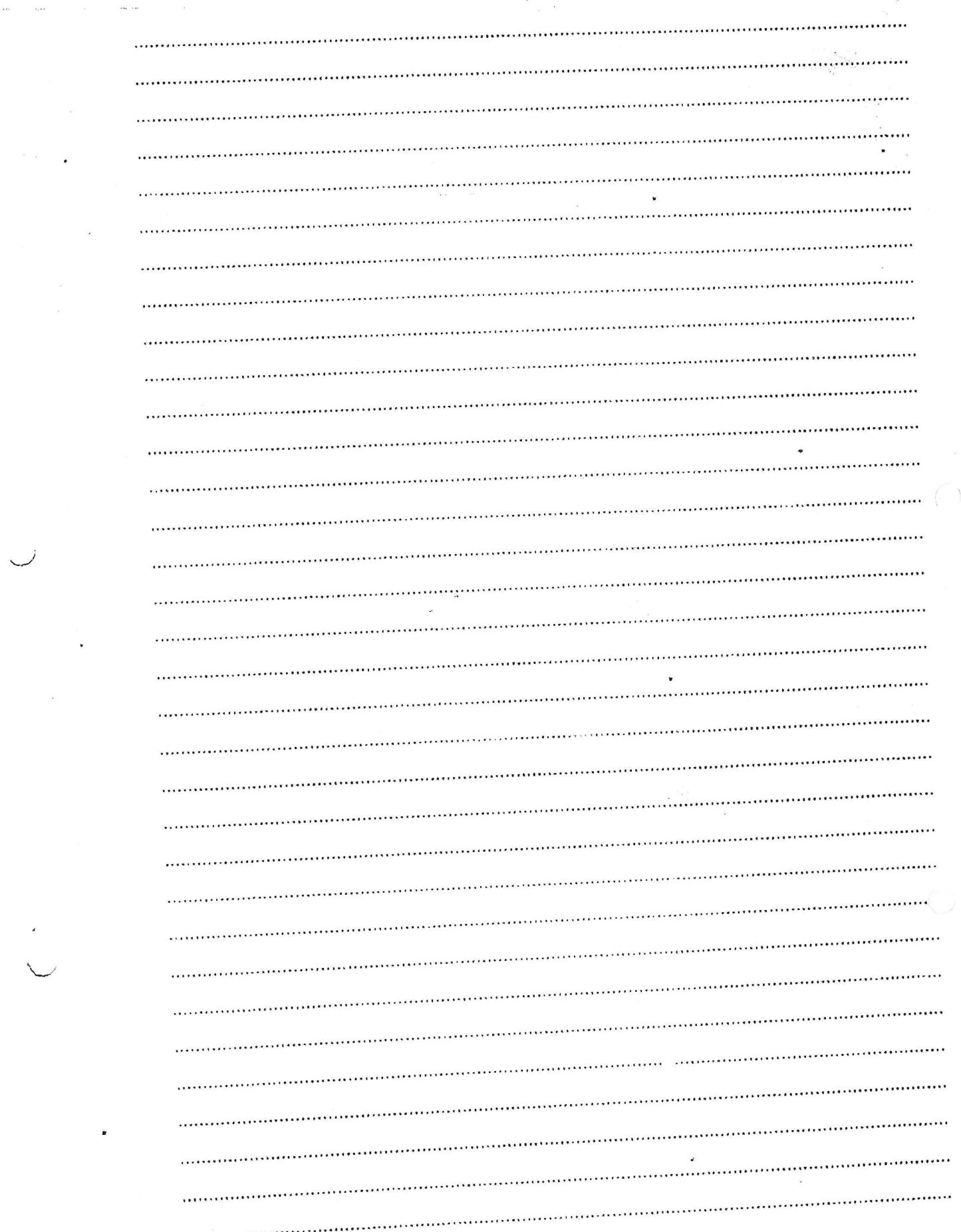
NAME _____   ADM NO._____

STREAM _____   SIGNATURE _____

DATE _____

**565/1**

**BUSINESS STUDIES**

**TIME: 2 HOURS**

# HAWK 1, 2019

## FORM FOUR BUSINESS STUDIES

565/1

BUSINESS STUDIES

PAPER 1

TIME: 2 HOURS

<u>INSTRUCTIONS TO CANDIDATES</u>

a) Write your name, Stream and admission Number in the spaces provided above.

b) Answer **ALL** the questions.

c) **ALL** answers must be written in the spaces provided in this booklet.

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

FOR EXAMINER'S USE ONLY

| Question | 1 | 2 | | | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Marks | | | | | | | | | | | | | | | |
| Question | 14. | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | | | |
| Marks | | | | | | | | | | | | | | | |

| Grand Total | |
|---|---|

[Type text]

1. Outline four ways in which business studies may be of benefit to an individual. (4marks)

a)_____

b)_____

c)_____

d)_____

2. State **four** gaps that may lead to an existence of a business opportunity to be exploited by an entrepreneur. (4marks)

a)   _____

b)._____

c)_____

d)_____

3. State the functions of the following office equipment.                    (4 marks)

| Equipment | Function |
|---|---|
| a). Guillotine | |
| b). Franking Machine | |
| c). Photocopier | |
| d). Shredder | |

4. List four services that Bansi retailers may offer to a consumer in Migori town.          (4marks)

a)   _____

b)   _____

c)   _____

d)   _____

5. The participants in the two sector economy are households and firms. Identify the relevant participant in each of the following statement given below. (4 marks)

| Statement | Participant |
|---|---|
| a). Payment for goods and services | |

2

| | |
|---|---|
| b). Sale of factors of production | |
| c). Payment for factors of production | |
| d). Sale of goods and services | |

6. Outline **four** features that distinguish a partnership deed from a partnership act.. (4 marks)

| Partnership Act | Partnership Deed |
|---|---|
| a). | a). |
| b). | b). |
| c). | c). |
| d). | d). |

7. State **four** importance of business to the society. (4 marks)

a) _____

b) _____

c) _____

d) _____

8. State the type of unemployment relating to each of the following descriptions. (4 marks)

a) Caused by alternating trading patterns occurring at similar times._____

b) Arises where workers have more skills and higher qualifications than the job

requirements_____.

c) Arises out of mismatch between the skills possessed by the potential employees and the location of the

jobs_____

d) Arises when people are unwilling to take jobs due to low pay_____

9.  Outline circumstances under which the government may be involved in business activities. (4marks)

a) _____

b)_____

c) _____

d)_____

10.  List four reasons why a consumer should satisfy basic human wants before secondary wants. (4 marks)

a) _____

b)_____

c)_____

d)_____

11.  The following information relates to Otito traders for the year ended 31st Dec 2017.   (4marks)

|                        | Shs     |
|------------------------|---------|
| Capital                | 406,000 |
| Drawing                | 92,000  |
| Additional Investment  | 68,000  |
| Net profit             | 180,000 |

Calculate the capital of Otito traders as at 1st Jan 2017.

12. Nyagot owns a chain of supermarkets. State four policies that Nyagot may take to cover his business. (4mks)

a) _____

b) _____

c) _____

d) _____

13. State four reasons why mobile phones have become very popular gadget of communication. (4marks)

a) _____

b) _____

c) _____

d) _____

14. Outline **four** benefits that may be realized as a result of government policy to relocate firms to rural areas. (4mks)

a) _____

b) _____

c) _____

d) _____

15. State four types of ledgers. (4mks)

a) _____

b) _____

c) _____

d) _____

16. Wilcom traders had the following ledger account balance as at 31$^{st}$ December 2018.

|  | Shs |
|---|---|
| Sales | 33,500 |
| Returns outwards | 1,500 |
| Discount allowed | 1,600 |
| Drawings | 38,800 |
| Debtors | 25,500 |
| Creditors | 31,000 |
| Wages | 8,000 |
| Cash | 9,600 |
| Bank overdraft | 17,500 |

Prepare Wilcom traders trial balance as at 31$^{st}$ December 2018.  (5marks)

17. Outline three positive effects that production activities may have on community health. (3marks)

a) _____

b)_____

c)_____

18. Outline four conditions under which goods may be sold directly to consumers. (4 marks)

a)_____

b)_____

c)_____

d)_____

19. State four differences between movement along and shifts in supply curve.          (4mks)

| Movement along a supply curve | Shift along a supply curve |
|---|---|
| i) | i) |
| ii) | ii) |
| iii) | iii) |
| iv) | iv) |

20. State **four** reasons that would make a business to maintain a cash book.          (4mks)

a) _____

b)_____

c)_____

d)_____

21. State **four** benefits of aftersales services as method of product promotion.          (4mks)

a) _____

b) _____

c) _____

d) _____

_____

22. Give four features of monopolistic competitive market structure.          (4 mks)

a) _____

b) _____

c) _____

d) _____

23. State four benefits of a bonded warehouse to the government.          (4 mks)

a) _____

b) _____

c) _____

d) _____

24. Outline four reasons why railway transport is not popular in Kenya..          (4 mks)

a) _____

b) _____

c) _____

d) _____

8

25. Highlight the importance of books of original entry (4mks)

a)._____

b)._____

c)._____

d)_____