NAME…………………………………………………………… INDEX NO:………………… SCHOOL.......................................................................................

CANDIDATE’S SIGNATURE:…………………………DATE:………………………………

443/1

**AGRICULTURE**

PAPER 1

MAY/JUNE 2016

2 HOURS

**EKSIKA JOINT EVALUATION TEST**

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

443/1

AGRICULTURE

PAPER 1

2 HOURS

**INSTRUCTIONS TO CANDIDATES**

1. Write your name and date in the spaces provided above.

2. This paper consists of **three** sections **A, B,** and **C**.

3. Answer all the questions in section **A** and **B** any **two** questions from section C.

4. Answers should be written in the spaces provided.

**FOR EXAMINERS USE ONLY**

|  |  |  |  |
| --- | --- | --- | --- |
| **Section** | **Question** | **Maximum score** | **Candidates score** |
| A | 1 - 14 | 30 |  |
| B | 15 - 18 | 20 |  |
| C | 19 - 21 | 20 |  |
|  |  | 20 |  |
| ***Total score*** |  | **90** |  |

*This paper consists of* ***10*** *printed pages.*

*Candidates should check the question paper to ensure that all pages are printed as indicated*

**SECTION A. (30mks)**

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

1. Define the term carbon cycle. (1mk)

2. State two factors that influence wind erosion (1mk)

3. Name two harmful effects of high pollution density in a maize growth for grain production (1mk)

4. State four objectives of land settlement schemes (2mks)

5. List three practices that would be carried carried to minimize the use of nitrogen fertilizer in a maize crop.

(1**½** mks)

6. Give two reasons why the use of fire should be discouraged in clearing land during seed bed preparation. (1mk)

7. State four control measures for maize streak virus disease. (2mks)

8. Give four types of records a crop farmer should keep (2mks)

9. Give four ways of controlling weeds in a field of maize. (2mks)

10. Name four sources of capital for farming. (2mks)

11. State four roles of good soil aeration in growing of crops (2mks)

12. State two means in which water can be conveyed from the place of storage (2mks)

13. State four variable costs in the production of maize (2mks)

14. Name three methods that may be used to detect mineral nutrient deficiency in crops (**1½** mks)

15. State three biotic factors that influence agriculture positively (**1½** mks)

16. Give two practices of hardening of vegetable seedlings (1mk)

17. State three practices that bring about chemical weathering (**1½** mks)

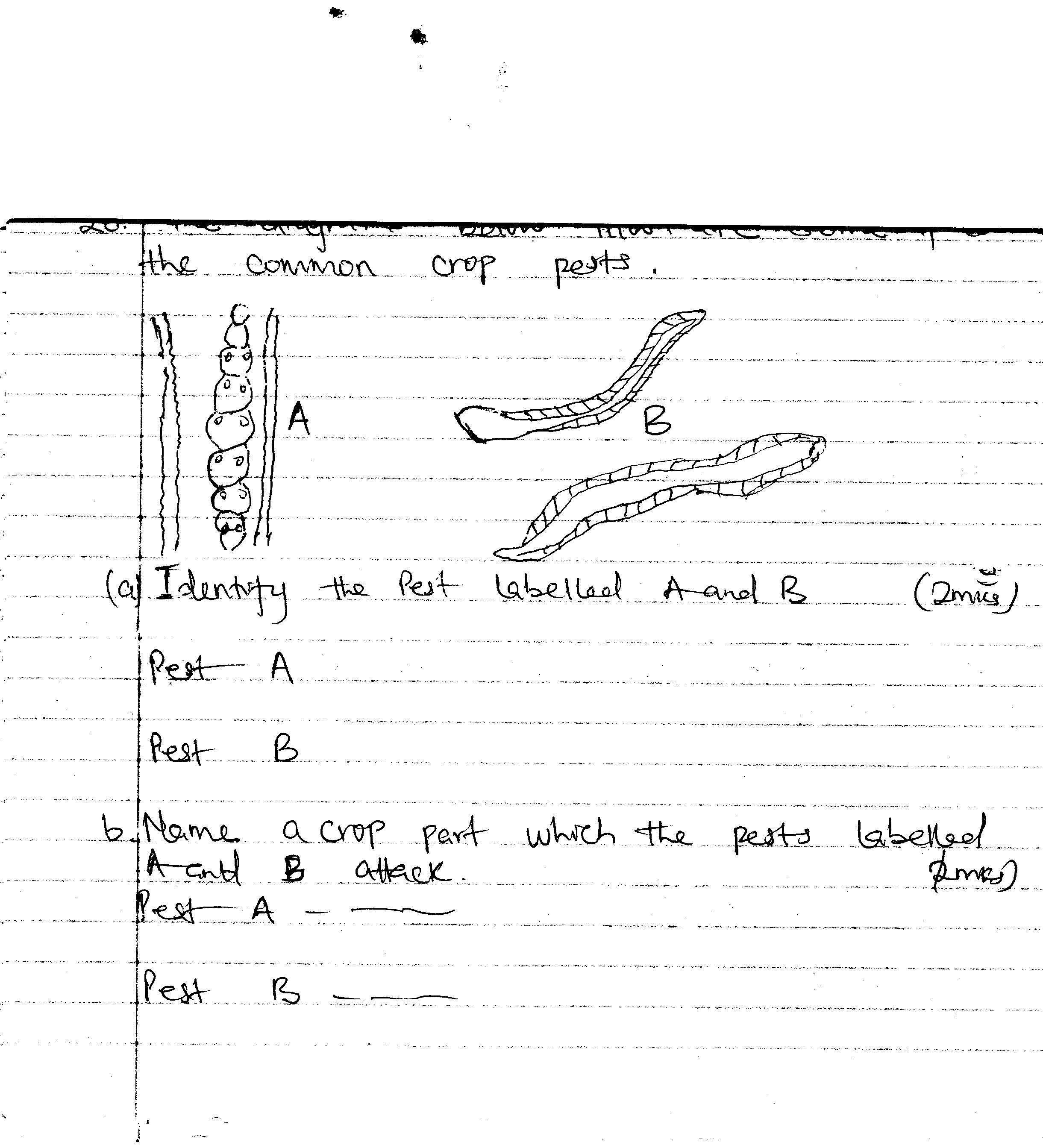
18. Give three importance of bench terraces in crop production. (1**½** mks)

19.Give five roles of drainage as a method of land reclamation. ( **2½** mks)

**SECTION B (20MKS)**

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

20. The diagrams bellow illustrate some of the common crop pests



1. Identify the pest labeled A and B (2mks)

Pest­­­­­­­ A

Pest B

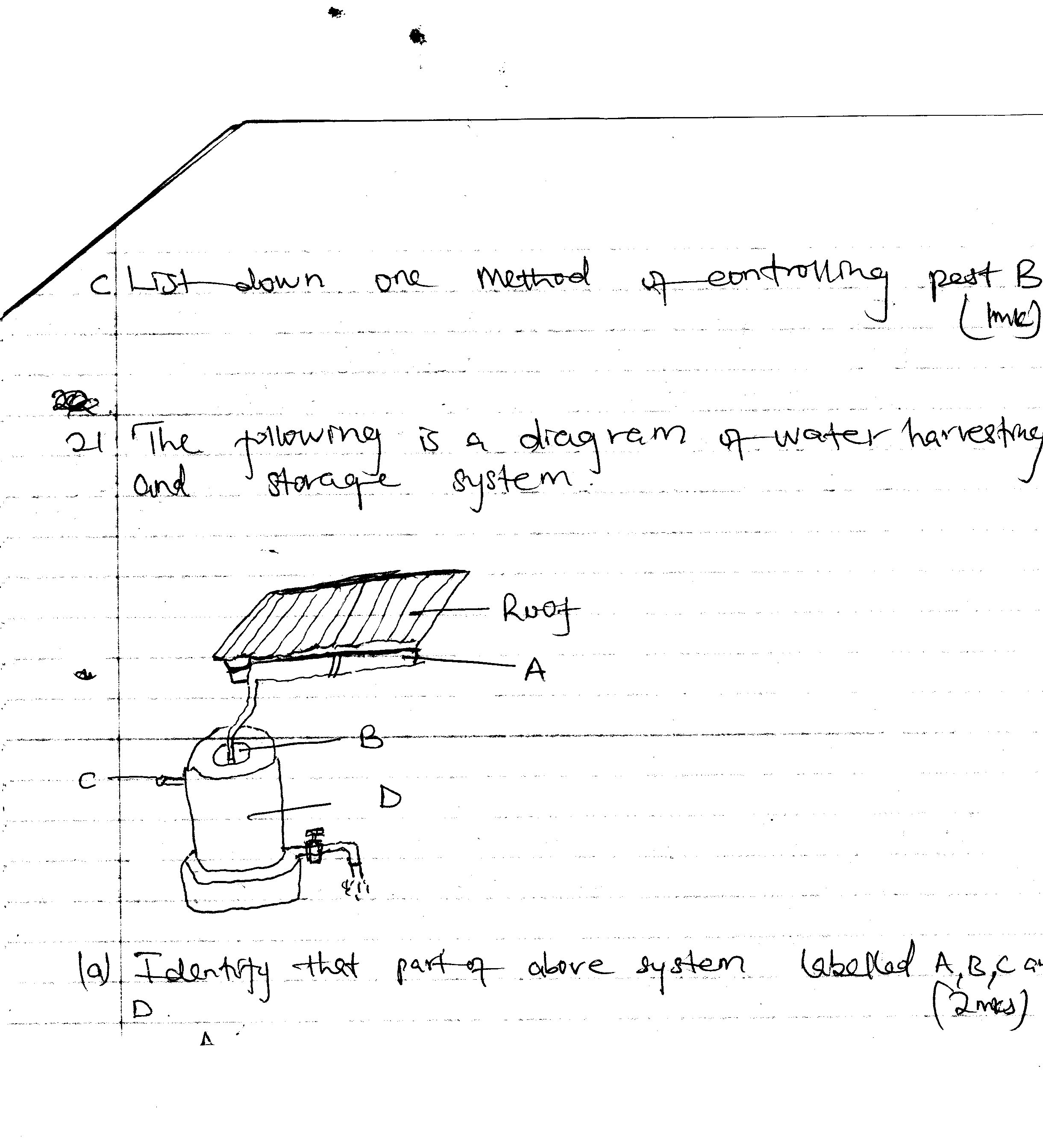
b) Name a crop part which the pests labeled A and B attack. (2mks)

Pest A

Pest B

c) List down one method of controlling pest B (1mk)

21. The following is a diagram of water harvesting and storage system.



a) Identify that part of above system labeled A,B.C and D (2mks)

A-

B-

C-

D-

b) State one use of part A and C (2mks)

A-

C-

22.a)If a plant spacing for Katumani maize in eastern Kenya is 90cm by 60cm and the planting rate is two seeds per hole/hill. If the average Katumani gram is 2gms.Calculate the seed rate per hecter(ha) (2mks)

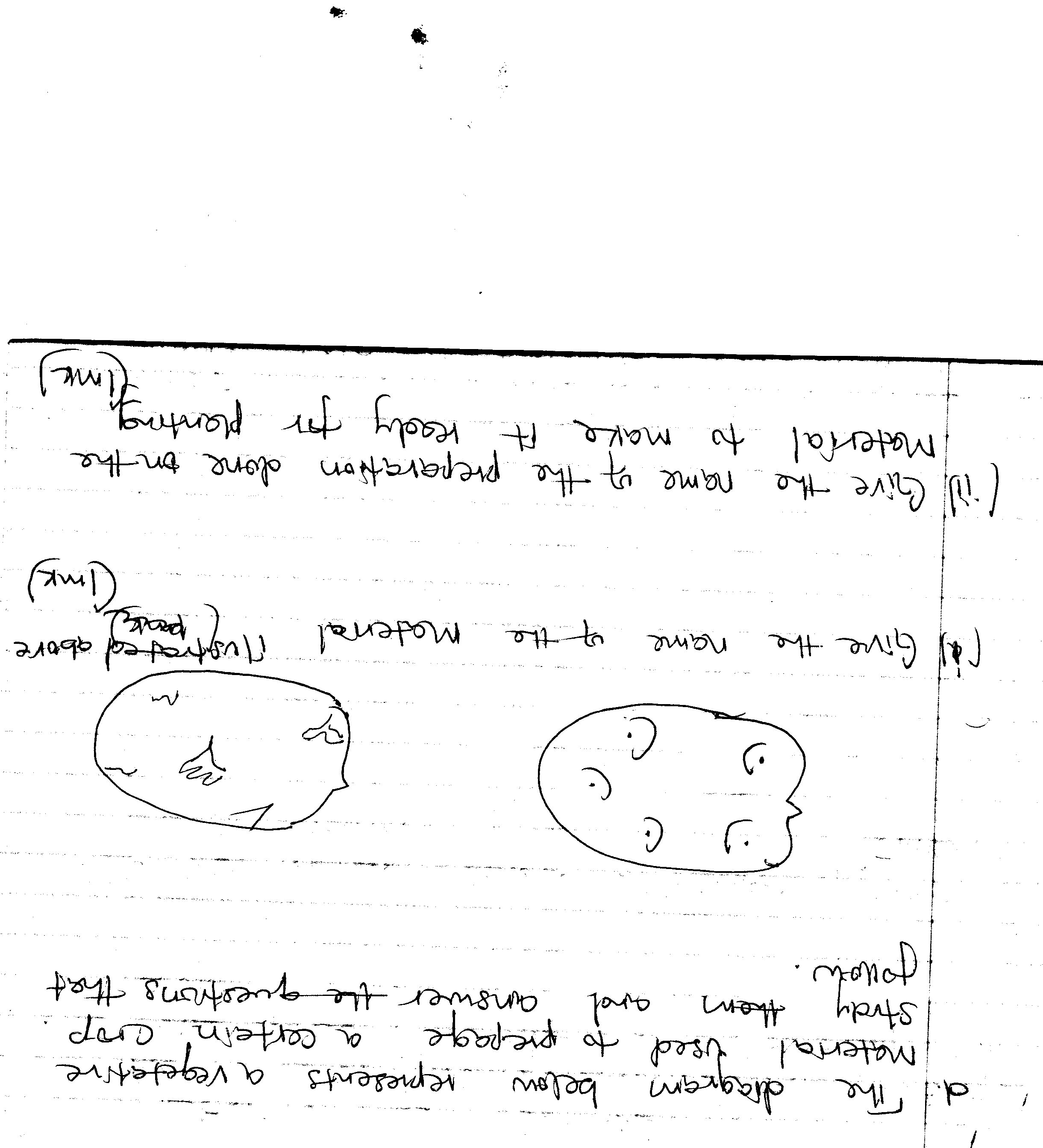
b)Fertilizer has a grade 18:46:0.What do the figures 18:46 represent? (2mks)

18-

46-

c) Outline three things that could happen to the element nitrogen when ammonium sulphate fertilizer is applied to the field of maize (3mks)

d) The diagram bellow represent a vegetative material used to prepare a certain crop. Study them and answer the questions that follow.



i) Give the name of the material illustrated above (1mk)

ii) Give the name of the preparation done on the material to make it ready for planting (1mk)

iii) State three advantages of carrying out the practice in d(ii) above before planting. (3mks)

**SECTION C (40MKS)**

**Answer any two questions in this section in the spaces provided at the end of this section.**

23. a) List various methods of harvesting water in a farm (5mks)

b) Explain how various farming practices would help to conserve soil in a farm (10mks)

c) Describe the construction of a cut-off drain in a farm (5mks)

24.a) Distinguish between demand and supply (2mks)

b) Describe the factors that influence demand of a commodity (8mks)

c) Explain the factors that determine elasticity of a demand. (6mks)

d) If price of millet change from ksh 20.00 to ksh 24.00 resulting in change of supply from 800 kg to 1200kg.Calculate price elasticity of supply for the commodity (show your working) (4mks)

25. Describe how various climate factors influence crop production. (20mks)