**TRIAL EXAMINATIONS 2021**

**Kenya Certificate of Secondary Education (KCSE)**

**443/1 - AGRICULTURE - Paper 1**

**(THEORY)**

**Dec. 2021 – 2 hours**

**Name: ………………………………………..……...… Index No: ……….……………….**

**School: ………………………………………………………………………………………...**

**Stream**: ………..……… **Candidate’s** **Signature**: …….………………....**Date**:…..………

**Instructions to candidates**

1. *Write your name and index number in the spaces provided above.*
2. *Sign and write the date of the examination in the spaces provided above.*
3. *The paper consists of* ***three*** *sections* ***A, B and C.***
4. *Answer* ***all*** *questions in section* ***A and B***
5. *All answers should be written in the spaces provided.*
6. ***This paper consists of 12 printed pages.***
7. ***Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.***
8. ***Candidates must answer the questions in English***

**For Examiner’s Use Only**

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| --- | --- | --- | --- |
| **Section** | **Question** | **Maximum Score** | **Candidate’s Score** |
| **A** | **1-18** | **30** |  |
| **B** | **19-23** | **20** |  |
| **C** |  | **20** |  |
|  | **20** |  |
| **TOTAL SCORE** | | **90** |  |

**SECTION A:** *(30 marks)*

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

1. State **four** advantages of mixed farming to the farmer (2 marks)

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1. State **two** reasons for forage conservation (1 mark)

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1. Give **four** reasons for using certified seeds for planting (2 marks)

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1. State **four** activities carried out by young farmer’s club in Kenya (2 marks)

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1. Give **two** benefits of possessing title deed to a farmer (1 mark)

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1. State **four** ways of classifying crop pest (2 marks)

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

1. State **four** observable indicators of economic development of a Nation. (2 marks)

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1. State **two** effects of HIV /AIDS on agricultural production. (1 mark)

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1. State **four** factors which may affect the quality of Hay. (2 marks)

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1. State **four** reasons why burning is discouraged as a method of land clearance. (2 marks)

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1. Give **two** forms in which nitrogen is absorbed by crops from the soil. (1 mark)

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1. State **four** factors that determine the stage at which crop is harvested (2mks)

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1. Name **two** types of non-competitive markets (1 mark)

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1. State **four** agricultural activities that may pollute water (2 marks)

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1. Name **four** appropriate sites for Agroforestry trees. (2 marks)

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1. State **four** characteristics of good seedling for transplanting (2 marks)

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1. State **four** financial documents kept by a poultry farmer. (2 marks)

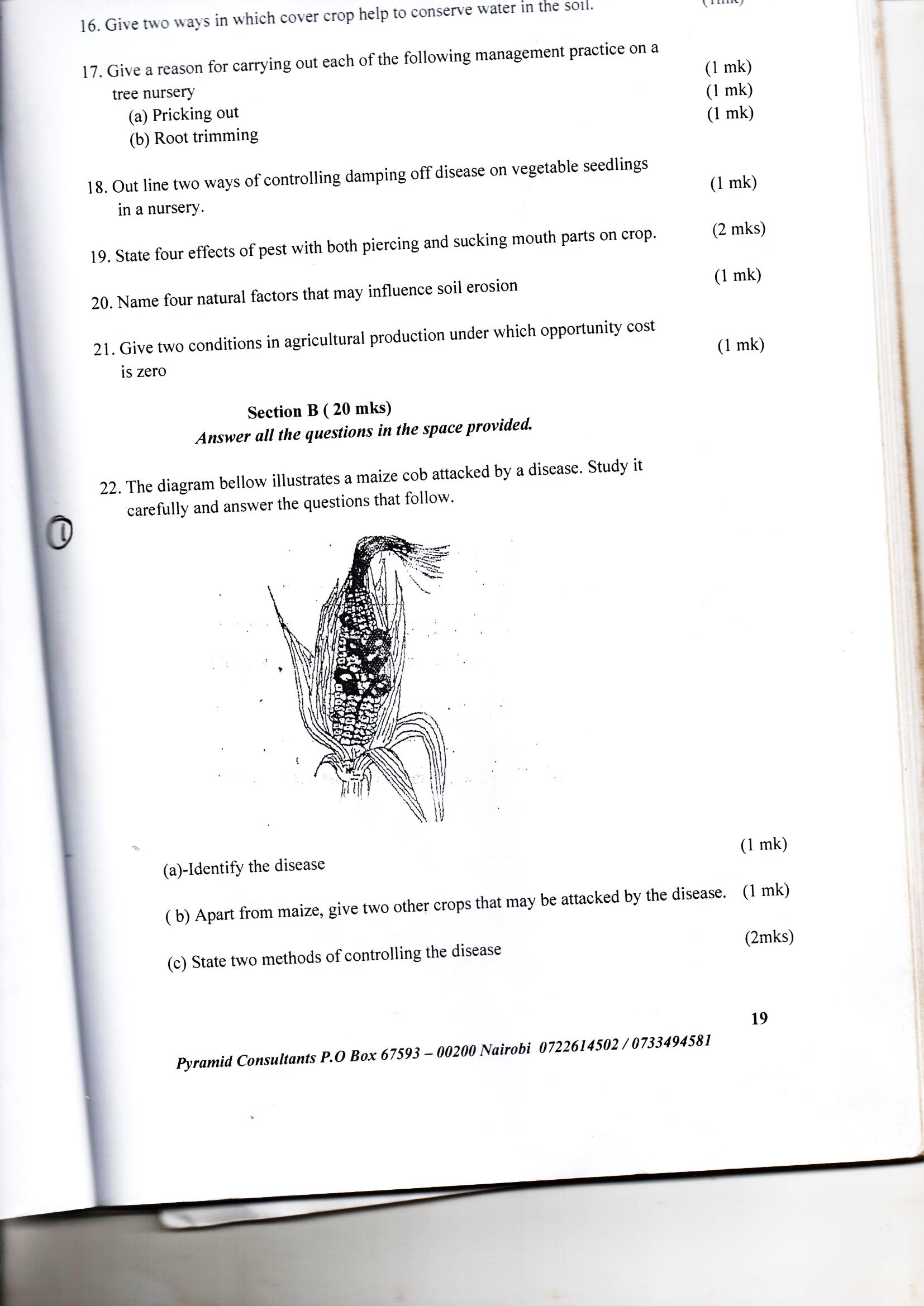
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1. Name any **two** types of labour records. (1 mark)

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

**SECTION B:** *(20 marks)*

*Answer* ***all*** *question in this section in the space provided*

1. below is a diagram showing a crop disease
2. Identify the crop disease (1 mark)

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

1. State **three** control measures for the crop disease (3 marks)

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

1. Name the category in which the disease is classified (1 mark)

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

1. The following illustration show different production function curves in agricultural economics. Study them and answer the questions that follows

**C**

**B**

**A**

1. Identify the production function curves labeled A and B (2 marks)

A…………………………………………………………………..……………

B……………………………………………………………………..…………

1. What does the law derived from the production labeled C state (1 mark)

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

1. i. Which one of the three production function curves is rare in agriculture. (1 mark)

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

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

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

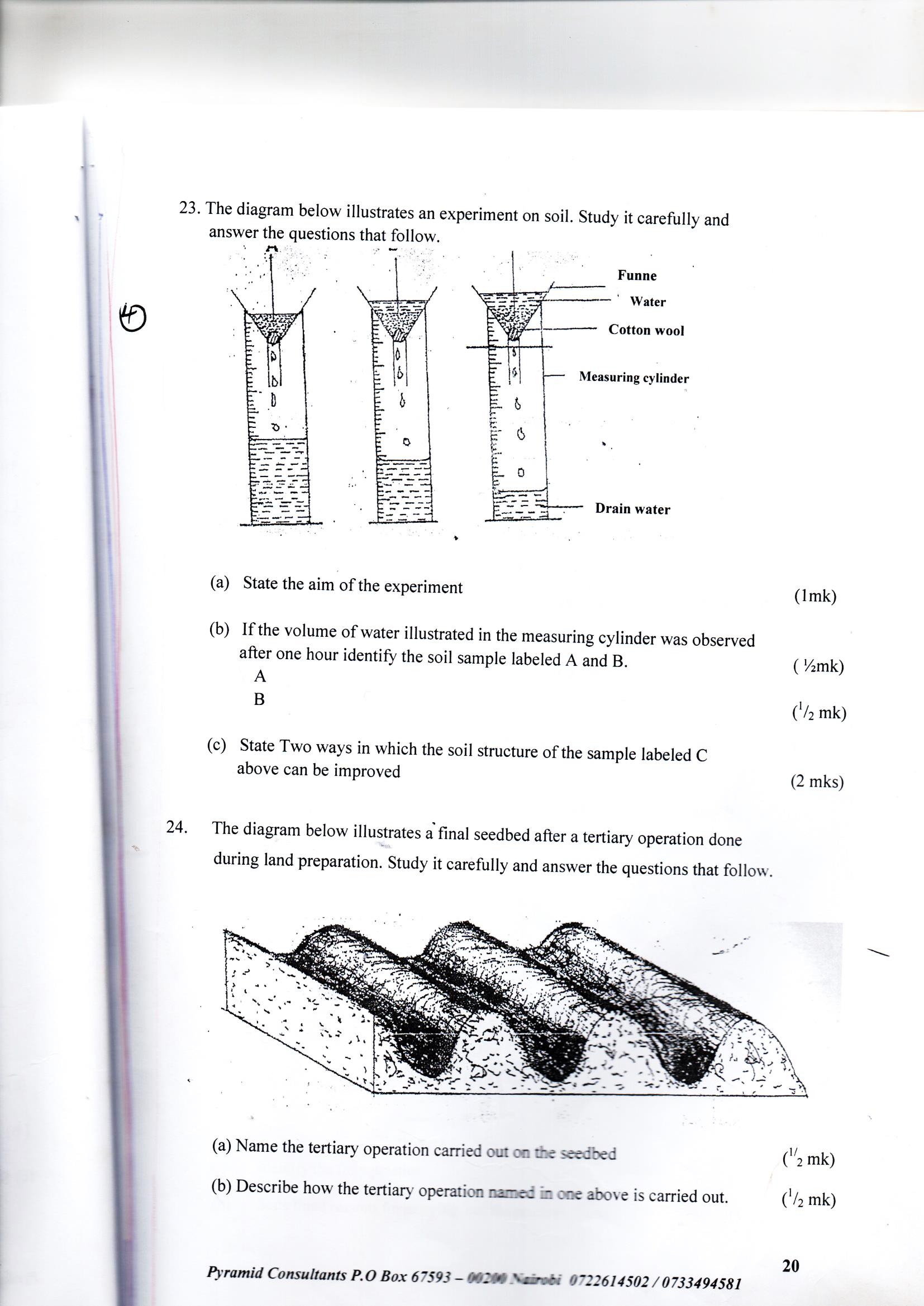
1. The following is a farm record Mrs. Sanda had kept as at 30th June 2006.

Study it carefully and answer the questions that follow

|  |  |
| --- | --- |
| Cash in hand | 20,000 |
| Cash at bank | 66,000 |
| Buildings | 50,000 |
| Disc plough | 16,000 |
| Debtors | 16,000 |
| Working tools | 12,000 |
| Bank overdraft | 24,000 |
| Creditors | 20,000 |
| Loan | 50,000 |
| Cattle | 40,000 |
| land | 80,000 |

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Prepare the balance sheet from the above information for Mrs Sanda’s farm (5mks)

1. The diagram below illustrates an experiment on soil. Study it carefully and answer the questions that follow

**C**

**B**

**A**

**Funnel**

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1. State the aim of the experiment (1 mark)

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

1. If the volume of water illustrated in the measuring cylinder was observed after one hour, identify the soil samples labeled

A: …………………………………………………………………...….. (1 mark)

B: ……………………………………………………………………… (1 mark)

1. State **two** ways in which the soil structure of the sample labeled C above can be improved (2 marks)

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

1. The diagram below illustrates common weeds in arable land, study them carefully and answer the questions that follow.
2. Identify the weed labeled

C…………………………………………………………………….….. (1 mark)

D………………………………………………………………………... (1 mark)

1. Classify the weed labeled C according to plant morphology. (1 mark)

…………………………………………………………………………....

1. Explain the reason why it is difficult to control the weed labeled D. (2 marks)

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

**SECTION C** *(40 marks)*

*Answer any* ***TWO*** *questions from this section*

1. a. Describe **seven** problems of marketing of agricultural produce (7 marks)

b. State **five** importance of crop rotation (5 marks)

c. Describe cultural pest control (8 marks)

1. a. Describe **eigh**t factors that contribute to competitive ability of weeds. (8 marks)

b. Describe the harvesting of coffee (5 marks)

c. Describe production of onion under the following sub-heading

i. Seedbed preparation (3 marks)

ii. Field management practices (4 marks)

1. a. Give **five** reasons why land consolidation should be encouraged in Kenya (5 marks)

b. Discuss **seven** ways by which the government of Kenya can improve on maize production to ensure food security in the country (7 marks)

c. Discuss **four** farming practices that may destroy soil structure. (8 marks)

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