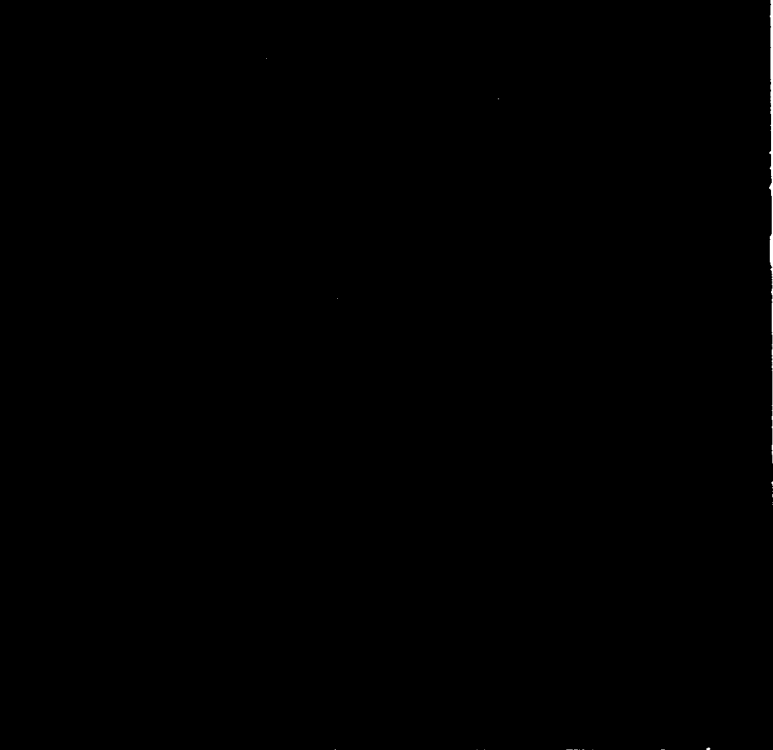


[illegible]



27

TVET NATIONAL EXAMINATION, RTQF LEVEL 5, 2020-2021

INSTRUCTIONS TO CANDIDATES: PART I (Answer Booklet)

1. A candidate should fill in the actual names and the index number on the cover of this questions and answer booklet on the provided place (Black Box).
2. It is illegal for a candidate to write any of his/her names, index number or a school name inside the answer booklet.
3. A candidate should check if all pages of the answer booklet are complete. No candidate should remove or tear any pages or part of it from the answer booklet.
4. A candidate should answer in the language in which the examination is set. (See page **(ii)**)
5. A candidate should sign on the sitting plan when submitting the answer booklet. He/she has also to check if the answer booklet is well sealed.
6. No extra paper is allowed in the examinations room. If a candidate is caught with it his/her results will be nullified.
7. No candidate is allowed to write answers not related to the subject being sat for, otherwise it will be considered as a cheating case.
8. Write your answers on the 12 lined pages (From page 1 of 12 to page 12 of 12).
9. Use the last non-lined pages as draft.
10. Results for any candidate who is caught in examination malpractices are nullified. The cheating can be recognized during examinations administration, marking exercise or even thereafter.

TVET NATIONAL EXAMINATION, RTQF LEVEL 5, 2020-2021

OPTION/TRADE: FORESTRY

SUBJECT: Tree nursery and forest plantation establishment

DURATION: 3 hours

INSTRUCTIONS TO CANDIDATES: PART II (Question Paper)

The paper is composed of two (2) main Sections as follows:

Section I: Attempt all the Twelve (12) questions (60 marks)

Section II: Attempt any Four (4) questions out of Six (6) (40 marks)

Allowed materials:

- Ruler and square
- Calculator

Note:

Every candidate is required to carefully comply with the provided assessment instructions.

Section I: Attempt all the Twelve (12) questions

(60 marks)

- 01.** List any five (5) of chronological classification for pine tree starting from its order. **(5 marks)**
- 02.** Identify any five (5) parameters and/or characteristics of forest for providing seed. **(5 marks)**
- 03.** Outline any five (5) criteria for selecting timber mother tree. **(5 marks)**
- 04.** List out any five (5) important criteria to take into consideration while selecting the site for seed collection purposes. **(5 marks)**
- 05.** It is imperative to collect mature seeds. What are the morphological characteristics or signs of mature seeds? **(5 marks)**
- 06.** Manual shaking of the tree is a useful method to get seeds to fall to the ground at the same time:
Indicate the procedures to follow when shaking the tree for seed collection. **(5 marks)**
- 07.** With reference to the following data:
- Number of trees to plant= 100
 - Number of seedlings to be raised: 10-20% more, say 20%
 - Result germination test= 50%
- a)** Calculate the number of seeds to be sown
- b)** Calculate the quantity of seeds to be sown if the number of seeds in 10 gr is 80. **(5 marks)**
- 08.** List any five (5) safety recommendations to follow during storage of any chemical products. **(5 marks)**

09. Identify at least five (5) advantages of lining out during forest plantation. **(5 marks)**

10. Fill the following table of forestry and agro forestry tree species:

S/N	Tree species	Common names
a)	Albizzia lebbeck
b)	Leucaena leucocephala
c)	Caribbean pine
d)	Gum tree
e)	Cupressus sp

(5 marks)

11. How can you conduct germination test?

(5 marks)

12. a) Identify any five (5) important points to consider when grafting.

b) Indicate the types of grafting.

(5 marks)

Section II: Attempt any Four (4) questions out of Six (6) (40 marks)

13. a) Assess the influence of neighboring trees to mother tree from which seed to be collected.

b) Tree Seed collections have been collected from different locations by different seed collection teams. Discuss the techniques you can use to identify seed lots. **(10 marks)**

14. a) During forest establishment there are four (4) common methods used to apply pesticides. Isolate those methods and explain them

b) Root pruning is a practice of cutting the tap root on seedlings before its planting on field. When can we apply that practice?

(10 marks)

15. a) During tree planting there are some basic rules to respect.

As forester worker, determine any eight (8) basic rules to follow in that action.

b) After plantation, it may be necessary to replace the seedlings that were died due to various reasons. When do we apply beating up in forest plantation? **(10 marks)**

16. In forest plantation according to the soil nature there are different spacing to be used:

- a)** Identify any three (3) advantages and characteristics of spacing over 2mx2m.
- b)** Elucidate any four (4) techniques of hole digging
- c)** Indicate three (3) types of spacing and show where those spacing are frequently used. **(10 marks)**

17. Broadcasting is a method of planting where the seeds are scattered in prepared garden by use of hand or machines and later with light soil.

Enumerate any five **(5)** advantages and disadvantages of broadcasting.

(10 marks)

18. Dormancy is defined as a physiological state in which seed pre disposed to germinate does not germinate even in the presence of favorable environmental conditions.

- a)** Give different kinds of seed dormancy.
- b)** Explain briefly any three (3) methods used for breaking out seed dormancy before sowing. **(10 marks)**

