



**NATIONAL EXAMINATION
AND SCHOOL INSPECTION
AUTHORITY**

Wednesday, 21/7/2021

08:30 – 11:30 AM

Names

Index number

TVET NATIONAL EXAMINATION, RTQF LEVEL 5, 2020-2021

QUESTIONS and ANSWERS BOOKLET

OPTION/TRADE: **FORESTRY**

SUBJECT: Forest Protection

ACADEMIC YEAR: 2020-2021

Read carefully the instructions on page (i) & (ii).

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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: Forest Protection

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 and explain any two (2) kinds of dead hedges.

5 marks

(02) During tree cutting the felled logs are transported from the forest to the converting area:

Pinpoint and explain briefly any five (5) ways of logs transport.

5 marks

(03) What are the maintenances required for protecting the fences?

5 marks

(04) Identify any five (5) advantages of thinning.

5 marks

(05) Identify at least five (5) purposes of coppicing system.

5 marks

(06) Describe the ground fire.

5 marks

(07) a) Explain how to use extinguisher.

b) Outline the different criteria to be considered in forest fire tools and equipment selection.

5 marks

(08) a) What are the types of forest fire?

b) Differentiate wildfire from other fires.

c) Identify the causes of ignition.

5 marks

- (09) a) What are the example of most plants Pyrophyte used in forest fire prevention found in Euphorbiaceae family?
- b) Natural causes are largely related to climatic conditions such as temperature, wind speed and direction, level of moisture in soil and atmosphere and duration of dry spells. List those natural causes
- c) What are elements that make up a fire triangle? **5 marks**
- (10) How can you control the virus diseases on trees? **5 marks**
- (11) a) Ascertain and explain briefly the three (3) component of IPM.
- b) Identify any three (3) characteristics of pesticide. **5 marks**
- (12) a) Outline any two (2) characteristics of isoptera and dangerous species of termites
- b) Differentiate thinning intensity from the thinning regime. **5 marks**

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

- (13)** a) Identify seven (7) steps to follow when we apply the tree cutting
b) List down any three (3) important factors for deciding the adoption of thinning practice. **10 marks**

(14) Coppicing is a practice of cutting trees near the ground (about 30 cm above the ground). This management applies only to species that have coppicing ability:

- a) As forest worker identify any five (5) objectives of coppicing.
b) How can you apply silvicultural practice?
c) Identify the three (3) systems of coppice applied in forest.

10 marks

(15) a) Fire is initiated when a source of fire like naked flame, cigarette, electric spark or any source of ignition comes into contact with inflammable material. Human related causes result from human activity as well as methods of forest management. Man-made causes of forest fire may be voluntary, semi-voluntary, organized, accidentally. With example, explain those man-made causes.

- b) In some cases, someone should nominate persons to implement the fire action plan and give them adequate training in firefighting and evacuation procedures. Outline any five (5) items that should be considered where appropriate. **10 marks**

(16) Identify and explain briefly any three (3) general criteria based on for classifying insects. Mention any one (1) example of insect species for each criteria.

10 marks

(17) a) Identify the different ways used for preventing the fungal diseases on tree.

b) For conducting pest and diseases control on tree, differentiate two (2) types of surveying.

10 marks

(18) Pinpoint any ten (10) phytosanitary products classification based on their mode of action on the targeted pest.

10 marks

