

FIJI NATIONAL UNIVERSITY

College of Agriculture, Fisheries & Forestry

Trade Diploma in Agroforestry

FINAL EXAMINATION

AGF 501: AGRO-FORESTRY TREES& SILVICULTURE PRACTICE.

Date: 29/ 04 /14.

TRIMESTER-1

Time: 3 Hours

Instruction to Students

1. You are allowed the first 10 minutes to read all the questions and during which time you are not to write.
2. Begin each section on a new page and use both sides of answer sheet.
3. Write your ID number on top of any additional sheets used and insert same in their correct sequence answer book and secure with a string.
4. Of the three sections, Section A and B are compulsory and answer any 2 out of the 3 questions in Section C.

**For Section: A -you are to CIRCLE YOUR ANSWERS onthe
QUESTION PAPER &HAND IT IN with your answer papers**

| Section | Particulars | Marks | Time Allocation (Minutes) |
|----------------|--------------------|--------------|----------------------------------|
| A | Multiple Choice | 30 | 45 |
| B | Short Answers | 30 | 50 |
| C | Essay | 40 | 85 |
| | Total | 100 % | 180 |

Section A

Multiple Choice

[30 Marks]

1. What is agroforestry?

- a) increasing the yield of the land
- b) provide protection
- c) interplanting trees with agricultural crops
- d) promoting multi –landuse systems

2. What is the role of trees in agroforestry?

- a) Soil improvement and erosion control
- b) enriches the soil with dead leaves and branches
- c) supply timber, firewood,fruits, medicines etc
- d) all the above

3. Hedges

- a)combine trees with crops
- b)maintaining natural nutrient cycle within the ecosystem
- c>windbreak and barriers to animals

d) none of the above

4. Selecting trees to be planted with crops would involve;

- a) healthy trees available
- b) any trees that bear edible fruits
- c) multipurpose tree species with thin crown
- d) trees working in symbiosis with others

5.Home gardens are

- a) a mixture of trees and crops
- b) small farm at the back of the house supplying food, medicine etc.
- c) ornamental flowers around the house
- d) animals are normally present therein

6.Traditional farming system in the Pacific is

- a) normal farming systems
- b) act as barriers to wild and domestic animals
- c) agroforestry systems
- d) none of the above

7.Fodder bank is

- a)practised for the production of poles and timber
 - a) the planting of trees in forest parks
 - b) is done according to the farmers needs

- c) planting and managing trees that provide animal feed

8. The service functions of trees in agroforestry

- a) are trees that support each other while growing
- b) trees that hold a leaning tree upright & growing
- c) trees working in symbiosis with others
- d) support for crops such as vanilla, yams, vine etc.

9. The production functions of trees include

- a) planting trees
- b) trees in the forest park
- c) fuelwood, timber, fruits and nuts, medicines, crafts, fodder, etc
- d) none of the above

10. Factors influencing soil erosion include

- a) ground cover
- b) binding root system
- c) rainfall intensity
- d) all the above

11. Traditional farming system in the Pacific Island countries are

- a) normal farming systems
- b) agroforestry systems

- c) both the above
- d) none of the above

12.Planting more trees would

- a) lessen soil erosion
- b) change the climate in the locality
- c) improve water quality
- d) all the above

13.The implication of agro–silvi–pasture is

- a) crops including vines and trees
- b) pasture, animals and crops
- c) pasture, animals ,crops and trees
- d) improve living standard

14.Timber trees are included in agroforestry systems via

- a) woodlots
- b) trees planted individually among agricultural crops
- c) in cattle pastures or rangeland
- d) all the above

15.With agroforestry, farmers

- a) select and plant trees with agricultural crops
- b) collect dead tree branches as fuelwood for home use
- c) harvest matured crops
- d) all the above

16. Agroforestry benefits include:

- a) trees providing fodder for animals
- b) trees provide cooling shade from the hot sun
- c) improve the micro-climate thereins
- d) reduce pests & diseases including all the above

17. Possible limitations of agroforestry

- a) competition of trees & crops for space, sunlight, & nutrients
- b) some trees serve as hosts to insect pests of crops
- c) more labour input
- d) prolong period to maturity plus all the above

18. Crops benefit from agroforestry through;

- a) improved soil fertility
- b) soil conservation
- c) improved micro – climate
- d) using chemical weedicides plus all the above

19. Planting more trees in agroforestry would

- a) lessen soil erosion
- b) change the climate in the subject area

- c) improve water quality and food production
- d) all the above

20. An important feature of agroforestry is

- a) mobilizing people to practice agroforestry
 - b) promote agroforestry set up
 - c) anyone interested may start his agroforestry farm
 - d) team work and sustainable development at all times
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Section B

Short Answers

Answers ALL Questions [30 Marks]

1. Clearly explain the following:

- a) Alley cropping
- b) Home garden
- c) Silvopastoral systems
- d) Hedgerows

[16 Marks]

2. In your own words clearly explain the following:

- a) Live Fences

b) Roles of Multipurpose Tree Species

[8 Marks]

3. Explain the following clearly

- a) What do you understand about agroforestry today?
- b) Intercropping systems
- c) Other agroforestry forms

[6 Marks]

Answer ANY 2 Questions

1. Discuss Agroforestry (A Way to Better Farming) under the following headings:

Introduction; Why Agroforestry; What is Agroforestry; Forms of Agroforestry; Agro-silvi-acqua-pastoral System; Other Agroforestry Forms.

[20 Marks]

2. Discuss the types of trees and forest products that can be integrated with agricultural crops on farms as alternative to natural forests. What are the advantages of such combinations ,its impact on the crops at maturity ,and your proposed marketing strategies.

[20 Marks]

3. Discuss Timber Trees in Agroforestry Systems and to include:

a) **Agroforestry in the Pacific**

b) **Advantages and Limitations of Timber Trees in Agroforestry System.**

c) **How can Trees help to control Soil Erosion**

d) **Fruit Trees in Pacific Farming Systems**

-List the most common ones

-The Special Case of Coconut Timber

[20 Marks]
