

**FIJI NATIONAL UNIVERSITY**  
**COLLEGE OF AGRICULTURE, FISHERIES AND FORESTRY**  
**TRADE DIPLOMA IN FORESTRY I**  
**TRADE DIPLOMA IN AGROFORESTRY I**  
**TRADE DIPLOMA IN WOOD PROCESSING AND VALUE ADDING I**  
**TRIMESTER 1 2014**

**AGF402: FOREST DENDROLOGY AND TREE IDENTIFICATION**

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**Date: 30/04/14**

**Time: 9.00AM-12.10PM**

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**TOTAL MARKS: 100**

**TOWARDS FINAL ASSESSMENT: 50%**

**Instructions to students**

1. You are allowed 10 minutes for reading during which time you are not to write.
2. Begin each section on a new page. Use both sides of the answer sheet.
3. Write your identity number on the top of any extra sheets used. Insert in their correct sequence in the answer booklet and secure with a string.
4. **All Sections are compulsory. All sections are short answers.**

<i>Section</i>	<i>Particulars</i>	<i>Marks</i>	<i>Time Allocations (minutes )</i>
A	<b>General Species Identification</b>	<b>40</b>	<b>75</b>
B	<b>Species and Their Uses</b>	<b>40</b>	<b>75</b>
C	<b>Sap Colors and Habitats</b>	<b>20</b>	<b>30</b>
	<b>Total</b>	<b>100</b>	<b>180</b>

## **Section A – General Species Identification – 40 marks**

**Answer all questions on the answer paper provided.**

1. Name a specie in the Anacardiaceae family and its common name. **(1 marks).**
2. Name a specie in the Annonaceaea family and its common name. **(1 marks).**
3. Name a specie in the Apocynaceae family and its common name. **(1 marks).**
4. Name a speciein theAraliaceae family and its common name. **(1 mark).**
- 5 Name a specie in the Bignoniaceae family and its common name. **(1 mark).**
6. Name a specie in the Burseraceae family and its common name. **(1 mark)**
7. Name 2 species in the Caesalpiaceae family and their common names**(2 mark)**
8. Name a specie in the Casuarinaceae family and its common name. **(1 mark)**
9. Name a specie in the Chrysobalanaceae family and its common name. **(1 mark)**
10. Name a specie in the Clusiaceae family and their common name. **(1 mark)**
11. Name a specie in the Combretaceae family and its common name. **(1 mark)**
12. Name a specie in the Cunnoniaceae family and its common name**(1 mark)**
13. Name a specie in the Dilleniaceae family and its common name. **(1 mark)**
14. Name a specie in the Ebenaceae family and its common name. **(1 mark)**
15. Name a specie in the Elaeocarpaceae family and its common name. **(1 mark)**
16. Name 2 species in the Euphorbiaceae family and their common names.**(1 marks)**
17. Name a specie in the Fabaceae family and its common name.**(1 mark)**
18. Name a specie in the Hernandiaceae family and its common name.**(1mark)**
19. Name a species in the Lauraceae family and its common name.**(1 mark)**
20. Name a specie in the Lecythidaceae family and its common name. **(1 mark)**
21. Name2 species in the Meliaceae family and their common names. **(2marks)**
22. Name a species in the Mimosaceae family and its common name.**(1 mark)**
23. Name a specie in the Moraceae family and its common name. **(1 mark)**
24. Name a specie in the Myristicaceae family and its common name. **(1 mark)**

25. Name a specie in the Myrtaceae family and its common name. **(1 mark)**
26. Name a specie in the Podocarpaceae family and its common name. **(1 mark)**
27. Name a specie in the Proteaceae family and its common name. **(1 mark)**
28. Name a specie in the Rhamnaceae and its common name. **(1 mark)**
29. Name a specie in the Rhizophoraceae family and its common name **(1 mark)**
30. Name a specie in the Rubiaceae family and its common name. **(1 mark)**
31. Name a specie in the Sapindaceae family and its common name. **(1 mark)**
32. Name a specie in the Sapotaceae family and its common name. **(1 mark)**
33. Name a specie in the Simaroubaceae family and its common name. **(1 mark)**
34. Name a species in the Sterculiaceae family and its common name. **(1 mark)**
35. Name a specie in the Thymeliaceae family and its common name. **(1 mark)**
36. Name a specie in the Tiliaceae family and its common name. **(1 mark)**
37. Name a specie in the Urticaceae family and its common name. **(1 mark)**
38. Name a specie in the Verbenaceae family and its common name. **(1 mark)**

## **Section B – Species and Their Uses – 40 marks.**

**All questions are 2 marks each. Do not repeat any answers to Section A as your answer in this Section. Answer all questions on the answer paper provided.**

1. Name a specie and its common name in the Anacardiaceae family that produces fruit that are edible, normally sold on the local market and also a component for home made jam and chutneys.
2. Name a specie in the Annonaceae family that produces flowers for scenting coconut oil and a valued component of salusalu (traditional garland) while its bark is medicinal.
3. The Boraginaceae comprise of a coastal specie that produce wood that is widely used for wood carving while the bark is a traditional medicine and when soaked in water produces a fibre for making baskets and garlands. Name the specie and its common name.
4. A specie in the Araucariaceae family produces sawn timber that is very valuable on the export and domestic market while the stem produces lumps of resin that are used for glazing pottery and as fuel for lighting fires. Name the specie and its common name.
5. The Burseraceae are well known as sawn timber species and as a veneer component of plywood. Name a specie with its common name that produce fruits or nuts as a food source in PNG and Vanuatu.
6. A specie in the Caesalpiniaceae is widely used as a source of excellent hardwood often traded under the trade name Kwila and often used for high value carving for tanoa and for outdoor timber uses for decking, furnitures and canoe and boat building. Give the specie and its common name.
7. A specie in the Casuarinaceae family is sometimes used as: a windbreak; on reforestation of degraded talasiga land; soil stabilization and coastal protection. Give the specie and its common name.

- 8.** A specie in the Chrysobalanaceae family produce leaves that are widely used for thatching houses while its fruit is used as a component of dyes; scenting coconut oil and for caulking canoes. Give the specie and its common name.
- 9.** Degeneriaceae is a family with a scientific value as being a relic and ancient among the flowering plants. Give the specie and its common name.
- 10.** The Euphorbiaceae family comprised of species that are vast and varied in uses. While some are dense forest timber species others are pioneer or secondary forest species. A specie produces oily fruits that are used for: lighting candles; its soot for tattoos and ink for tapa designs. Give the specie and its common name.
- 11.** Another specie in the Euphorbiaceae is common in all forests in Fiji and is a well known high value timber specie for the export and domestic market. The timber is mostly utilized locally as weather boards; frames and flooring after treatment. Name the specie and its common name.
- 12.** The Fabaceae family comprised of a specie that has the ability to fix nitrogen from the atmosphere and is therefore normally cultivated to be interplanted with crops or utilized as fence post. Give the specie and its common name.
- 13.** Another specie in the Fabaceae family grows along coastline; rivers and swamps. It produces seeds that are edible when cooked and are often sold in the local market as a sought after delicacy when in season. Give the specie and its common name.
- 14.** The specie in the Gnetaceae family is normally shrubby in size while the tender leaves and fruits are edible in some parts of Fiji. Give the species and its common name.
- 15.** The Lecythidaceae family comprise of a specie that produce seeds that can be eaten raw or cooked. Give the specie and its common name.

16. The Loganiaceae family comprise of a specie that is well known for its use as house post and wharf piles due to its natural durability and is therefore locally known as iron wood. Give the specie and its common name.
17. In Fiji, the Meliaceae also comprise of a specie that was introduced from Central America and is now widely grown as a plantation timber specie. The timber is of a very high value and possess excellent working characteristics for end uses such as furniture; paneling and flooring. Give the species and the common name.
18. The Mimosaceae family also comprise of a specie that is widely planted as a shade tree along roads; in plantations and as an ornamental. The tree can grow to a very large size. The wood which has a dark core is a valuable timber for flooring and handicrafts. Give the specie and its common name.
19. Two species in the Podocarpaceae family are the most valuable and highly demanded native timber species in Fiji both for the export and domestic market. The timber from these species are used for furniture and interior panels/walls. Give one specie and its common name.
20. A specie in the Santalaceae family produce the most valuable non timber forest produce in Fiji and is even more valuable than the most valuable timber species of the same volume. The wood produce a fragrance that is of high demand in the Asian region as incense in religious ceremonies; boxes and carved pieces; perfuming oils to scent coconut oils and marriage ceremonies. Give the species and its common name.

## **Section C – Sap Colours and Habitats- 20 marks**

**You are to attempt all questions.**

1. Name the family, species and common names of 3 species which exudes a white sap from their bark when slashed. i.e. 3 families, 3 species and 3 common names.

**(5 marks)**

2. Name the family, specie and common name of a specie which exudes a yellow sap from its bark when slashed. **(2.5 marks)**
  
3. Name the family, specie and common name of a specie which exudes a red sap from its bark when slashed. **(2.5 marks)**
  
4. For 4 families,give the species and common names of 2 species in each family, one being located in a coastal habitat while one being a dense forest habitat specie, for all the 4 families. **(10 marks)**