



COLLEGE OF AGRICULTURE, FISHERIES & FORESTRY

School of Agricultural Sciences

Department of Crop Production

Trade Diploma in Agriculture – Year 2

AGO 506: Field Crops`

Trimester 1 Final Examination 2017

[Total Marks: 100]

Time Allowed : 3 hours plus 10 minutes reading time

Instructions : This paper consists of 7 pages.

Please check to see that your paper is complete.

Answer ALL questions in the answer booklet. Number your answers correctly in the answer booklet.

Write your student ID number on all the pages that you use including any additional sheet of paper.

Printed or written material is not allowed into the examination hall.

Mark values appear at the end of each question or part thereof.

Non-programmable calculators are permitted.

“MOBILE PHONES ARE STRICTLY NOT ALLOWED”

SECTION	DESCRIPTION AND MARK ALLOCATION
SECTION A	Part 1 - Multiple Choice Questions – 10 Marks
	Part 2 – Matching – 10 Marks
	Part 3 – True or False – 10 Marks
	Part 4 – Fill in the Blanks – 10 Marks
SECTION B	Short Answer Questions – 30 Marks
SECTION C	Long Answer Questions – 30 Marks

Write the most appropriate answer of your choice in the answer booklet

1. The scientific name of rice _____.
 - A. *Daucus carota*.
 - B. *Oryza sativa*
 - C. *Cucumis sativa*
 - D. *Colocasia esculenta*

2. Sugarcane flower is known as _____.
 - a) Silk
 - b) Tassel
 - c) Arrow
 - d) Panicle

3. Green colour of potato is due to _____.
 - a) Solanine
 - b) Chlorophyll
 - c) pigments
 - d) Lycopene

4. Nicotine is found in _____ crop.
 - a) Mustard
 - b) Pigeon pea
 - c) Tobacco
 - d) None of the above

5. Maize is a _____ crop.
 - a) Root crop
 - b) Long day crop
 - c) Day neutral
 - d) Tropical

6. The recommended variety of maize to be grown in Fiji is _____.
 - a) Nirala
 - b) Bharpur
 - c) Teosinte
 - d) All the Above

7. Major constrain of pigeon pea cultivation in Fiji is_____.
- a) Aphid
 - b) Damping off
 - c) Climatic condition
 - d) Poor soil condition
8. An advantage of using pulse crop for green manuring is_____.
- a) Pest Resistant
 - b) Disease Resistant
 - c) Ability to fix atmospheric nitrogen
 - d) High yield
9. *Vurai balavu* is a variety of _____.
- a) Dalo
 - b) Maize
 - c) Kumala
 - d) Yam
10. The bulging out of the panicle from the leaf sheath is called the_____.
- a) Heading Stage
 - b) Anthesis stage
 - c) Tasseling
 - d) Booting Stage

PART 2

MATCHING

[10 Marks]

Match List A with the corresponding correct answer from List B and write the answer in the answer booklet provided.

#	Section A		Section B
1	Sunflower	A	is referred to as " King of Fibres "and also known as "White Gold"
2	Potato	B	Also known as "millable cane".
3	Thinning	C	Operation of tying the leaves together using the bottom dry and green leaves is known as propping.
4	Green Potatoes	D	Latest instrument used to analyze sucrose percent.
5	Recommended varieties of potato	E	Removal of unwanted bottom dry and green leaves at 150 DAPS.
6	Detrashing	F	Red rascal, dalisay and sebago
7	"Seurolyser"	G	Development of chlorophyll on the superficial layer of potato when it gets exposed to sunlight.
8	Propping	H	This is done to keep one healthy plant per hill as excess plant populations adversely affect the growth and yield.
9	Stalk	I	Solanum Tuberosum
10	Cotton	J	Helianthus annuus

PART 3

TRUE OR FALSE

[10 Marks]

In the Answer booklet provided write "TRUE or FALSE" if the statement is correct and "FALSE" if the statement is incorrect.

Sl.no.	Statements	T or F
1	Soil analysis should be done after application of fertilizer.	
2	Heliotropism is the diurnal motion or seasonal motion of plant parts (flowers or leaves) in response to the direction of the sun.	
3	<i>Indicas</i> are the traditional varieties of rice with weak stems and susceptible to lodging.	
4	The wild variety of maize is called Teosinte.	
5	<i>Discorea alata</i> is by far the most important yam species used in Fiji.	
6	Yam tubers remain dormant for about 3-4 months and can be stored easily in a dry shaded well-ventilated area.	
7	Delay in harvesting of the sunflower seeds leads to shattering of the seed in field.	
8	The best method to store potato is by the means of cold storage system.	
9	Sunflower being a photo insensitive can be grown irrespective of the season.	
10	Topping refers to the removal of the terminal bud. Level of topping or at what node topping is to be done will differs with cotton plant type.	

PART 4

FILL IN THE BLANKS

[10 Marks]

Fill in the blanks to complete the following statements. Write your answers in the answer booklet.

1. The wild variety of maize is called the _____.
2. Mechanical manipulation of the soil at high moisture regime which reduces deep percolation losses is termed as _____.
3. _____, when they are heated, the pressure build up within the kernel suddenly results in an explosion and the grain is turnout.
4. _____ is called "QUEEN OF THE CEREALS".
5. _____ is the removal of grains from the panicles.
6. Panicles form the rice _____.
7. Rice belongs to the family of _____.
8. The _____ contributes largely to the filling of grains because it supplies photosynthetic products, mainly to the panicle.
9. Operation of tying the leaves together using the bottom dry and green leaves is known as _____.
10. The scientific name of taro is _____.

SECTION B**SHORT ANSWER QUESTIONS****[30 Marks]****[Each question is worth 3 marks, except question 3 = 5 Marks and question 10= 1 Mark]****All are compulsory**

1. What is the importance of staking in yam, method of staking and its advantage? **(3 Marks)**
2. Briefly classify the different rice plant types? **(3 Marks)**
3. Define puddling and list 4 objectives of puddling. **(5 Marks)**
4. What leads to uneven or miss filing of the kernel (grains) in maize? **(3 Marks)**
5. Define threshing. List the 2 different types of threshing? **(3 Marks)**
6. What are the visible maturity indices of rice? **(3 Marks)**
7. What is the distribution of nicotine content in a tobacco plant? **(3 Marks)**
8. What will happen if the potato tubers are exposed to sunlight before harvesting? **(3 Marks)**
9. What are the constrains of growing sugarcane? **(3 Marks)**
10. What is the critical stage of water application in maize plant? **(1 Mark)**

SECTION C**LONG ANSWER QUESTIONS****[30 Marks]**

This section consists of 3 long answer questions. Answer any two questions.

1. Discuss sugarcane under the following headings:

- a) Scientific name and family
- b) Origin and classification of rice
- c) Growth stages of rice plant
- d) Pest and disease of rice
- e) Harvesting and threshing

(15 Marks)

2. Discuss maize under the following headings:

- a) Scientific and family of maize
- b) Origin and classify the different maize types
- c) Variety
- d) Climate and soil type
- e) Critical stages of irrigation

(15 Marks)

3. Briefly discuss potato under the following heading:

- a) Botanical name and family
- b) Soil requirements
- c) Recommended varieties in Fiji
- d) Economic importance of potato
- e) Harvesting and storage

(15 Marks)

The End

