



**COLLEGE OF AGRICULTURE, FISHERIES & FORESTRY
School of Agricultural Sciences**

Department of Crop Production

Trade Diploma in Agriculture – Year I

ACP 401: PRINCIPLES OF CROP ESTABLISHMENT

Trimester 1

Final Examination : 2017

Total Marks: 50

Time Allowed : 3 hours plus 10 minutes reading time

Instructions :

- This paper consists of 6 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
A	40 Marks Part 1 - Multiple Choice Questions - 10 Marks Part 2 – Matching - 5 Marks Part 3 – True or False - 5 Marks
B	Short Answer Questions - 20 Marks
C	Long Answer Questions - 10 Marks
	50 Marks



Multiple Choice

[Choose the best answer of your choice.]

1. A branch of agriculture that deals with growing crops for use as food and fibre is referred to as
 - a) crop production.
 - b) vegetable production.
 - c) fruit production.
 - d) flower production.

2. One objective of tillage is to
 - a) improve soil texture.
 - b) aerate the soil.
 - c) improve weed growth.
 - d) improve bulk density.

3. The failure of a fully developed & mature viable seed to germinate under favorable environmental conditions is called
 - a) resting.
 - b) hibernation.
 - c) dormancy.
 - d) sleeping.

4. The pressure or barrier effect soils have on seed emergence is known as soil
 - a) structure.
 - b) purities.
 - c) compaction.
 - d) impedence.

5. When crops live for several years it is known as
 - a) perennial.
 - b) biennial.
 - c) annuals
 - d) seasonal.

6. The practice of using nutrients wisely for optimum economic benefit, while minimizing impact on the environment is known as
 - A. crop rotation.
 - B. nutrient management.
 - C. green manuring.
 - D. fallowing.

7. An essential resource for all life on the planet is
 - A. land.
 - B. air.
 - C. water.
 - D. soil.

8. Practice of growing two or more crops simultaneously on the same field in-between the rows is termed as
 - A. sole cropping.
 - B. continuous cropping.
 - C. sequential cropping.
 - D. intercropping.

9. The process of gathering the main part(s) of the crop that is/are to be used by the people is.
 - A. harvesting.
 - B. gathering.
 - C. felling.
 - D. reaping.

10. The value of the agricultural products and their byproducts will decrease due to
 - A. processing.
 - B. dehydration.
 - C. cleaning.
 - D. storing.

Matching**[5 marks]**

- Match the descriptions in List B with the word(s) in List A.
- Write the letter of the description from List B in the space provided beside the matching number in the answer booklet.

Ans	#	List A		List B
	1	Preparatory	A	less soil erosion compared to conventional tillage
	2	One advantage of zero tillage is	B	organic matter content increased due to less mineralization
	3	One disadvantage of zero tillage is	C	a type of tillage
	4	Conventional tillage	D	hard seed coat
	5	One cause of dormancy is	E	is the ploughing of land twice or thrice followed by harrowing & planking
	6	Phosphorus	F	is the largest user of the world's freshwater resources, consuming 70 percent
	7	Agriculture	G	deteriorates the quality of maize during storage
	8	Monocropping	H	shows that the crop is matured for harvesting
	9	Color change	I	the growing of one crop on the same land season after season
	10	Overcrowding and heat	J	promotes early root formation and growth

True or False**[5 marks]**

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

#	Statements	T or F
1	Agriculture plays an important role in the process of rural development.	
2	The sugar industry is vital to the national economy, as such; the government plays a leading role in all aspects of its production, sale and lease renewal.	
3	Agriculture is the art or science of cultivating land, for producing crops and raising livestock.	
4	Sustainable crop production is a way of growing or raising food in an ecologically and ethically responsible manner.	
5	Primary tillage is the breaking of compacted soil into finer particles.	
6	Sowing is the process of transplanting seedlings.	
7	Dry, intermediate and wet zones are climatic zones of Fiji.	
8	The tilth is the physical condition of the soil brought out by tillage.	
9	Scarification is one method to break seed dormancy.	
10	Germination test, determines the percentage of seeds that produce healthy root and shoot.	

SECTION B SHORT ANSWER QUESTIONS**[20 Marks]**

All questions are compulsory.

1. List at least four provisions for major agricultural programmes in place to increase Agriculture production. [2 marks]
2. List four advantages of tillage. [2 marks]
3. List the characteristics of a good quality seeds. [2 marks]
4. List the three tests conducted to determine the quality of seeds. [2 marks]
5. List the three factors affecting plant growth. [2 marks]
6. List the importance of nitrogen to plant growth. [2 marks]
7. List six characteristics of weeds which make them more successful. [3 marks]
8. Define the following terms.
 - Annual weeds [1 mark]
 - Biennial weeds [1 mark]
9. List and explain the three types of farming systems practiced in Fiji. [3 marks]

Section C

Long Answer Questions

(10 marks)

- Answer any one question out of the two given.
 - Each question is worth 10 marks.
 - Answer the question in approximately 250-300 words.
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1. Define agriculture and discuss how it first began in Fiji.
 2. List and discuss about the primary and secondary farm implements which are used in Fiji.

END OF PAPER

