



**COLLEGE OF AGRICULTURE, FISHERIES & FORESTRY**

**School of Agricultural Sciences**

**Department of Crop Production**

**Trade Diploma in Agriculture/Animal Husbandry – Year I**

**IFS 401: Integrated Farming System**

**Trimester 3 Final Examination 2016**

**[Total Marks: 100]**

Time Allowed : 3 hours plus 10 minutes reading time

Instructions : This paper consists of 06 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”**

<b>SECTION</b>	<b>DESCRIPTION AND MARK ALLOCATION</b>
<b>SECTION A</b>	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
<b>SECTION B</b>	Short Answer Questions – 30 Marks
<b>SECTION C</b>	Long Answer Questions – 30 Marks

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

1. Integrated Farming System is:
  - A. An approach of bringing livestock and crops together without any interactions.
  - B. A supplementary integration of crops and livestock
  - C. An approach of bringing the different components to interactive relationships.
  - D. All the Above
  
2. The component of the Aquaponic system that houses the plant is known as
  - a) The sump pump tank
  - b) Solid removal and bio filter tank
  - c) The plant tank
  - d) Fish tank
  
3. Name the gas that is produced in the bio gas plant which is of the highest concentration
  - a) Carbon-dioxide
  - b) Methane
  - c) Nitrogen
  - d) Hydrogen
  
4. Which of the following is not the role of livestock in IFS?
  - a) Food source
  - b) Manure source
  - c) Transport
  - d) None of the above
  
5. One disadvantage of bio gas is
  - a) contain Impurities
  - b) not Attractive on Large Scale
  - c) unstable
  - d) All of the above
  
6. One major factor impacting the classification of the farming system is:
  - a) Climate
  - b) Level of Technology
  - c) Infrastructure
  - d) All the Above

7. Crops are changed in the field from year to year according to a planned sequence rather than the same crop grown on the same land is known as?
- a) Crop Rotation
  - b) Monocropping
  - c) Intercropping
  - d) Mixed Farming
8. Growing two or more crops together in strips wide enough to permit separate crop using machines but close enough for the crops to interact?
- a) Mixed Cropping
  - b) Crop Rotation
  - c) Strip Cropping
  - d) Relay Cropping
9. One benefit of composted coir pith is
- a) it improves the soil aggregation
  - b) it improves the water holding capacity
  - c) Ammonification and nitrogen fixation are increased
  - d) All the above
10. The integrated farming system represents a winning combination that
- a) Increases soil erosion
  - b) Decreases crop yield, nutrient cycling
  - c) Decreased profit
  - d) None of the Above

**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	Apiculture	A	Uses mostly solid wastes that are added to the tank in installments, and continuous feeding models feed mostly liquids to the digester
2	Humus	B	Food security Provide balanced food, Quality food basket High productivity and enhanced farm income.
3	Vermiculture	C	Art of bee keeping
4	Batch feeding system	D	To identify existing farming systems in specific area and assess their relative viability;
5	Objectives of integrated farming systems	E	Formed by the decomposition of leaves and other plant material by soil microorganisms
6	Relay intercropping	F	Absence of oxygen
7	Role of Farming System	G	The cotyledons remain under the soil.
8	Anaerobic condition	H	excludes the use of synthetic inputs, such as synthetic fertilizers, pesticides, herbicides, and GMOs
9	Biogas	I	Renewable source of energy
10	Organic farming	J	planting a second crop into a standing crop at a time when the standing crop is at its reproductive stage but before harvesting

**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	Poultry is the fastest food growing industry	
2	Integrated farming systems main goal is to decrease the income and standard of living of small and marginal farmers'	
3	In integrated farming system animals play key and multiple roles in the Functioning of the farm'.	
4	Hydrophytes are plants which can grow in wetlands.	
5	Fallow is the practice of allowing crop land to lie idle during a growing season to build up the soil moisture & fertility content.	
6	In integrated farming system, it is always emphasized not to combine cropping with other enterprises or activities	
7	Climate elevation, soil are some of the factors impacting Farming system	
8	Increasing the income and standard of living of small and marginal farmers are the major goals of IFS.	
9	Mono cropping is the planting of only two crops in a piece of land year after year.	
10	Vermicomposting is the breaking down of organic material through the use of worms, bacteria, and fungi.	

**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. In integrated farming system the waste product of one component serve as a \_\_\_\_\_ to the other.
2. Integrated farming or integrated productions is a commonly and broadly used word to explain a more integrated approach to farming as compared to existing\_\_\_\_\_.
3. \_\_\_\_\_ has gained importance owing to its properties for use as a growth medium in Horticulture.
4. \_\_\_\_\_ is the breaking down of organic material through the use of worms, bacteria, and fungi.
5. \_\_\_\_\_ refers to an ordered combination of crops grown, livestock produced, husbandry methods and cultural practices followed.
6. In the \_\_\_\_\_, the water is pumped into the fish tank; replacement water can be added in this tank to regulate the depth of water in the system.
7. The end product of vermicomposting is a substance called\_\_\_\_\_.
8. \_\_\_\_\_vermiculture is run on a bigger scale than that of the individual family-based vermiculture bin.
9. \_\_\_\_\_refers to the ability of a farm to produce food indefinitely, without causing irreversible damage to ecosystem health.
10. \_\_\_\_\_ is an edible fungi great diversity in shape size and colour.

**SECTION B****SHORT ANSWER QUESTIONS****[30 Marks]****[Each question is worth 3 marks. All are compulsory.]**

1. What is integrated farming system? **(3 Marks)**
2. List 6 components of Integrated farming system? **(3 Marks)**
3. Differentiate between Sericulture and Moriculture, discuss their relationship. **(3 Marks)**
4. Differentiate between organic farming system and sustainable agriculture **(3 Marks)**
5. What are the advantages of fish, crop and livestock integration? **(3 Marks)**
6. Briefly discuss 3 factors influencing the type of farming system? **(3 Marks)**
7. List and explain the 3 major types of farming system in Fiji? **(3 Marks)**
8. Briefly describe agro forestry farming system in Fiji. **(3 Marks)**
9. Briefly explain the reasons as to why coir pith is collected without any fiber? **(3 Marks)**
10. Differentiate between fixed dome plant and floating dome plants? **(3 Marks)**

**Section C****Long answer questions****[30 marks]****This section consists of two long answer questions. Both are compulsory questions.**

1. Define integrated farming system. Briefly discuss two objectives of integrated farming system and finally explain the importance of integrated farming system in detail. (15)
2. Discuss vermicomposting under following heads. (15)
  - a) Definition and difference between fertilizer and vermicompost
  - b) Types of worms used
  - c) Method of composting
  - d) Method of application
  - e) Advantages of application

**The End**



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Cover Page	✓	
Fiji National University with Logo	✓	
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Unit Name	✓	
Examination Period	✓	
Duration of Examination	✓	
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