



FIJI NATIONAL UNIVERSITY

COLLEGE OF AGRICULTURE, FISHERIES AND FORESTRY
SCHOOL OF AGRICULTURE
DEPARTMENT OF SOIL SCIENCE & AGRI CHEMISTRY

FINAL EXAMINATION: 2017

Unclassified, year 1: Trimester- 1
AGRO ECOSYSTEM MANAGEMENT & ORGANIC FARMING
(SAC 302)

TOTAL MARKS: 100

TIME ALLOWED: 3:10 HOURS

This paper consists of six (6) pages, please check to see that your paper is complete.

Instructions

Answer all questions in the answer booklet

- Number your answers correctly in the provided answer booklet.
- Write your student ID number on all pages including additional sheets.
- Write your student ID number on question paper.
- Don't write answers on question paper; write answers only in answer booklet.

"MOBILE PHONES ARE STRICTLY PROHIBITED IN THE EXAMINATION HALL"

PART	TYPE		TOTAL MARKS
I	MULTIPLE CHOICE ANSWERS	10 x 1	10
II	TRUE OR FALSE	11 x 1	11
III	FILL IN THE BLANKS	11 x 1	11
IV	DEFINITIONS/SHORT ANSWERS	6 x 3	18
V	DESCRIPTIVE QUESTIONS	5 x 7	35
VI	ESSAY QUESTION	1 x 15	15
TOTAL MARKS			100

Commercial (Ag.) Trimester I-2017 Final Examination SAC 302: Agro ecosystem management organic farming, CAFF, FNU.

1. One of the major environmental issues threatening mankind is :
 - a) Global warming,
 - b) water pollution,
 - c) pesticide pollution,
 - d) All of the above

2. One Functions of forest resources is:
 - a) Productive function
 - b) Protective
 - c) Regulative
 - d) All of the above

3. Vermicomposting is a nutrient rich compost which:
 - a) helps better plant growth and crop yield
 - b) Improves physical structure of soil.
 - c) enriches soil with micro-organisms
 - d) all of the above

4. The nitrogen content in vermicomposting is :
 - a) 1.6%
 - b) 0.2%
 - c) 0.5%
 - d) 0.6%

5. One of the ecological importance of forest is:
 - a) Production of Oxygen
 - b) Conservation of soil
 - c) Important in a fertility of soil
 - d) All of the above

6. Human uses the water for::
- a) Agriculture
 - b) Drinking
 - c) Washing
 - d) All of the above
7. One of the principles of organic farming is:
- a) Health
 - b) Care
 - c) Fairness
 - d) All of the above
8. One sources of calcium for replacing exchangeable sodium is:
- a) Irrigation water
 - b) Gypsum and lime present in soil
 - c) High-salt water
 - d) All of the above
9. One advantage of bio fertilizers is:
- a) sustain soil health
 - b) supplement chemical fertilizers
 - c) solubilize and mobilize nutrients
 - d) All of the above
10. One criteria used to judge essentiality of elements is :
- a) If it is needed for the plant to complete its life cycle.
 - b) If it is part of any molecule or constituent of the plant that is itself essential.
 - c) If deficiency symptoms appear in the absence of the element.
 - d) All of the above

PART 11: TRUE OR FALSE

11x 1 = 11 marks

1. Environmental studies deals with every issue that affects an organism. .
2. Fertilizers are available in both organic as well as inorganic forms.
3. The earthworm excreta called worm cast.
4. The pollution and degraded environment seriously affect the health of all living things on earth, including man.
5. The unplanned exploitation of natural resources lead to pollution of all types and at all levels.
6. Environment is derived from the French word Environner, which mean encircle or surrounding.
7. The amount of precipitation and the elevation of the forest also affect forest composition.
8. Organic farming is a system which avoids or largely excludes the use of synthetic inputs.
9. Healthy soils produce healthy crops that foster the health of animals and people.
10. Organic Agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.
11. The vermicompost should be removed from the bed at a regular interval and replaced by fresh waste materials.

PART III: FILL IN THE BLANKS

11 x 1 = 11 marks

1. One method of Vermicomposting production is _____
2. One variety of Earthworms used for vermicomposting is _____
3. One type of essential elements is _____
4. The Environment is derived from the French word _____
5. One environment issues threatening mankind is _____
6. One type of composting method is called _____
7. _____ is a technology of composting various forms of biodegradable wastes with the help of earthworms.
8. _____ quarters of earth surface are covered with water.
9. _____ % of water on earth is salt water and leaving only 3% as fresh water
10. A _____ is a large area of land covered with trees.
11. The microorganisms that perform the composting process require _____ to survive.

PART IV: ANSWER 6 FROM THE FOLLOWING

6x3 = 18 marks

1. Define what is natural resource
2. Define what is a forest
3. Define conservation forest
4. Define what is a compost
5. Define what is organic farming
6. Define what is bio fertilizer

7. Define what is vermicomposting
8. Define what is farming system
9. Define what is composting
10. Define what is subsistence farming

PART V: ANSWER ANY 5 FROM THE FOLLOWING

5 x 7 = 35

1. Briefly discuss the role of organic manure.
2. Briefly explain why organic farming not adopted on large scale
3. Briefly discuss three benefit of vermicomposting.
4. Briefly explain two basic steps of organic farming.
5. Briefly discuss the two methods of vermicomposting
6. Briefly discuss two advantages of compost.

PART VI: ANSWER ANY 1 FROM THE FOLLOWING

1x15 = 15 marks

1. **Compost is one of the major organic manures derived from the decompose plant residues:** a) Lists five types of compost and b) Briefly explain the process in compost making step by step , starting with a brief introduction, material used and steps in composting making and finally a brief conclusion.

OR

2. A) Briefly discuss why organic farming not adopted on large scale. b)explain the following :
 - Pure organic farming
 - Integrating farming system

END OF THE PAPER

