

FIJI NATIONAL UNIVERSITY

COLLEGE OF AGRICULTURE, FISHERIES AND FORESTRY

SPECIAL EXAMINATION: 2015

Trimester II: MANURES AND FERTILIZERS (SAC 602)

TOTAL MARKS: 50

TIME ALLOWED: 3:10 HOURS

INSTRUCTIONS:

This paper consists of **four (4) pages**. Please check to see that your paper is complete.

Answer all questions in the answer booklet.

- Number your answers correctly in the provided answer booklet.
- Write your student ID number on all pages that you use including any additional sheet paper.
- Printed or written study materials are not allowed into the examination hall.
- Mark values appear at the end of each question or part thereof.
- Calculators are permitted.

"MOBILE PHONES ARE STRICTLY NOT ALLOWED"

SECTION NO.	TYPE	TOTAL MARKS
I	MULTIPLE CHOICE	7.0
II	FILL IN BLANK	7.0
III	DEFINITIONS	6.0
IV	SHORT ANSWER	14.0
V	LONG ANSWER	16.0
TOTAL MARKS		50

PART I : WRITE THE LETTER OF YOUR CHOICE

7 x 1.0 = Total 7.0 marks

1. Of the following, which is a micro nutrient element?
A) Sulphur
B) Copper
C) Calcium
D) Potassium

2. Of the following, which is not an organic fertilizer?
A) Calcium Ammonium Nitrate
B) Ammonium Nitrate
C) Muriate of potash
D) None

3. Of the following, which is a macro nutrient fertilizer?
A) Zinc Sulphate
B) Borax
C) Copper Sulphate
D) None

4. What is the percent of potassium in Muriate of potash?
A) 21
B) 46
C) 58
D) None

5. What is the available form of Potassium?
A) K^+
B) KO_2
C) KCl
D) All

6. What is the percent of P_2O_5 in Triple super phosphate ?
A) 48
B) 26
C) 16
D) 34

7. What is the percent of P_2O_5 in rock phosphate is

A) 10-20

B) 50-80

C) 20-40

D) 80-100

PART II: FILL IN BLANK

7 x 1.0 = Total 7.0 marks

Fertilizer Name	Nutrient percent content
1. Ammonium nitrate	----- % Nitrogen percent
2. Calcium ammonium nitrate	----- % Nitrogen percent
3. Urea	----- % Nitrogen percent
4. Double super phosphate	----- % P_2O_5 percent
5. Bonemeal	----- % P_2O_5 percent
6. Potassium sulphate	----- % K_2O percent
7. FYM	----- % Nitrogen percent

PART III: DEFINITONS

4 x 1.5 = Total 6.0 marks

- 1 FYM (1 marks)
- 2 Fertilizer (1 marks)
- 3 Manure (1 marks)
- 4 Vermi-compost (1 marks)

PART IV : SHORT ANSWER :

14 marks

- 1 List down the name of ammonical nitrogenous fertilizers. (2 marks)
- 2 List down the name of nitrate nitrogenous fertilizers. (2 marks)
- 3 List down the name of phosphate fertilizer. (2 marks)
- 4 List down the name of potassium fertilizer. (2 marks)
- 5 List down the name of name of important green manuring crops. (2 marks)
- 6 List down the factors that can affect the quality and composition of FYM. (2 marks)
- 7 Write the name of straight fertilizers. (2 marks)

PART V : LONG ANSWER : ATTEMPT ANY (4) FOUR

4 X 4 = 16 Marks

1. Explain the classification of nitrogenous fertilizers
2. List down the methods of composting and explain any two in brief.
3. Explain the objective, advantages and limitations of green manuring.
4. Explain the manufacturing process of urea with physico-chemical properties.

END OF EXAMINATION PAPER