

# KERALA AGRICULTURAL UNIVERSITY

B.Sc. Hons (Ag) 2010 Admission

IV<sup>th</sup> Semester Final Examination, July /August 2012

Cat. No: Ssac.2204

Title: Fertilizers and Agro Chemicals (1 + 1)

Marks: 80

Time: 3 hours

## I A. Fill in the blanks

(5 x1=5)

1. FCO came into force in India in the year \_\_\_\_\_.
2. Amendment that is used to reclaim acidic soil is \_\_\_\_\_.
3. Urea contain \_\_\_\_\_ as a toxic substance.
4. \_\_\_\_\_ is an alkaloid present in the leaves of tobacco plants.
5. \_\_\_\_\_ mineral is the raw material for the manufacture of all phosphatic fertilizers.

## I B. Match the following

(5x1=5)

A	B
1) Diammonium phosphate	a) 60 % K <sub>2</sub> O
2) Sulphate of potash	b) 16 % P <sub>2</sub> O <sub>5</sub>
3) Muriate of potash	c) 46 % P <sub>2</sub> O <sub>5</sub>
4) Single super phosphate	d) 25 % N
5) Calcium ammonium nitrate	e) 50 % K <sub>2</sub> O

## II. Write short note/Answers on ANY TEN

(10x3=30)

1. Soil amendments
2. Agro-chemicals
3. Fertilizer control Order
4. Difference between acid forming and base forming fertilizers.
5. Bone meal
6. Rock phosphate
7. Name any three potash bearing minerals with their compositions.
8. Fates of urea in soil.
9. Plant growth regulators
10. Name any two complex fertilizers which supply N and P.
11. Insecticidal properties of neem.
12. Bordeaux mixture.

## II. Write short essays on ANY SIX of the following

(6x5=30)

1. Classification of phosphatic fertilizers with one example each.
2. Complex fertilizers are more preferred than straight fertilizers- justify.

3. What is triple super phosphate? How it is different from SSP and how it is manufactured.
4. Describe the manufacture of Urea with reactions.
5. Classification of insecticides based on mode of action.
6. Behaviour of pesticide in the soil.
7. Detoxification of pesticides in plants.
8. What are fungicides? Give its classification.

**IV. Write essay on ANY ONE**

**(1x10=10)**

1. What are herbicides? Give the classification of herbicides with examples.
2. Give classification of nitrogenous fertilizers and describe the manufacturing process of ammonium sulphate and give their properties.