

**KERALA AGRICULTURAL UNIVERSITY**  
**B.Sc. (Hons.) Agriculture – 2008 Admission - IV<sup>th</sup> Semester**  
**Final Examination – July-August 2010**

Cat. No. : Ssac 2204

Title : Fertilizers and Agrochemicals (1+1)

Max. marks: 80

Time : 3 hours

**I Answer ALL questions**

(10 x 1 = 10)

1. Most commonly used nitrogenous fertilizer in India is \_\_\_\_\_  
a. Urea                      b. Ammonium Sulphate                      c. CAN                      d. KNO<sub>3</sub>
2. Amount of sulfuric acid required to convert rock phosphate into single superphosphate is \_\_\_\_\_  
a. 1:8                      b. 1:7                      c. 1:6                      d. 1:1
3. Sulphate of potash contains K:S in the proportion of \_\_\_\_\_  
a. 40:17                      b. 17:40                      c. 50:17                      d. 17:50
4. Molybdenum availability is plenty in \_\_\_\_\_ pH  
a. Alkaline                      b. Neutral                      c. Acidic                      d. Highly acidic
5. Apatites are used as a source of \_\_\_\_\_  
a. Calcium                      b. Iron                      c. Zinc                      d. Phosphorous
6. Kelp weeds are rich source of \_\_\_\_\_  
a. Nitrogen                      b. Phosphorous                      c. Potassium                      d. Zinc
7. Atrazine is a selective herbicide for cereals (True / False)
8. Glyphosate is a broad spectrum herbicide (True / False)
9. Chemical name for fytolqn is \_\_\_\_\_
10. Toxic principle present in neem based pesticide is \_\_\_\_\_

**II Write short notes on any TEN of the following questions**

10 x 3 = 30

1. Manufacture of urea fertilizer
2. Classification of phosphatic fertilizers
3. Define straight and complex fertilizers with suitable examples

4. Regulations of Fertilizer Control Order
5. Role of Pyrethroids in insect pest control
6. Mode of action of rotenone
7. Systemic fungicides
8. Balanced Fertilization
9. Insecticide acts and regulations
10. Chemical structure of organochlorinated pesticides (any two)
11. Micronutrient mixtures
12. Partially acidulated rock phosphates

**III Write short essays on any SIX of the following**

**6 x 5 = 30**

1. Urea hydrolysis in soils. Suggest suitable strategies to improve the N use efficiency
2. Potassic fertilizers and their characteristics
3. Use of plant growth regulators in agriculture
4. Sulfur fungicides synthesis and mode of action
5. Biodegradation of pesticides in soils
6. Chelating compounds and their use in micronutrient management
7. Liming
8. Neem based botanical pesticides

**IV Write an essay on any ONE of the following**

**1 x 10 = 10**

1. Fertilizer application is indispensable to sustain agricultural productivity. Justify with suitable examples
2. What are herbicides? How do different types of herbicides act specifically in various agricultural production system and prevent loss of crop productivity