



**KERALA AGRICULTURAL UNIVERSITY**  
**B.Sc (Hons.) Agriculture 2015 & Previous Admissions**  
**IV Semester Final Examination-August-2017**

● sac.2204

**Fertilizers and Agro-chemicals (1+1)**

**Marks: 50**  
**Time: 2 hours**  
**(10x1=10)**

**I Answer all Questions**

- 1 Amount of urea required to apply 100 kg of N to rice field is -----  
a) 220    b) 460    c) 22    d) 46
- 2 Rock phosphate is converted to single superphosphate by adding -----  
a) HCl    b) H<sub>2</sub>SO<sub>4</sub>    c) HNO<sub>3</sub>    d) H<sub>3</sub>PO<sub>3</sub>
- 3 Sulphate of potash contains----- % of K  
a) 50    b) 40    c) 55    d) 45
- 4 Molybdenum availability is plenty in ----- pH  
a) Alkaline    b) Neutral    c) Acidic    d) Highly acidic
- 5 Apatites are rich source of -----  
a) Calcium    b) Iron    c) Zinc    d) Phosphorous
- 6 Feldspars and Micas provide ----- to soil  
a) Nitrogen    b) Phosphorous    c) Potassium    d) Zinc
- 7 Glyphosate is recommended only for controlling grass weeds. (T/F)
- 8 Atrazine is a broad spectrum herbicide. (T/F)
- 9 Constituents in Bordeaux mixture are ----- and -----
- 10 Toxic principle present in neem based pesticide is -----

**II Write short notes on any FIVE**

**(5x2=10)**

- 1 Reactions involved in manufacture of urea and ammonium sulphate.
- 2 Define straight and complex fertilizers with suitable examples.
- 3 Regulations of Fertilizer Control Order.
- 4 Botanical pesticides (explain any three).
- 5 Secondary nutrient supplying fertilizers with suitable examples.
- 6 Residual toxicities of agro-chemicals.
- 7 Micronutrient mixtures.

**III Answer any FIVE**

**(5x4=20)**

- 1 How can N use efficiency be improved in wetlands?
- 2 Phosphatic fertilizers and their characteristics.
- 3 Use of plant growth regulators in agriculture.
- 4 Synthesis of sulphur fungicides and its mode of action.
- 5 Management strategies to alleviate entry of agrochemicals in food chain.
- 6 Role of organic manures in nutrient management.
- 7 Liming materials used in acid soils.

**IV Write essay on any ONE**

**(1x10=10)**

- 1 Fertilizer application is indispensable to sustain agricultural productivity. Justify with suitable examples.
- 2 What are insecticides? Classification of insecticides with suitable example and their chemical structure.

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