

5th Sem. / Chemical  
Subject : Fertilizer Technology

Time : 3 Hrs.

M.M. : 60

## SECTION-A

**Note: Multiple Choice Questions. All Questions are compulsory. (6x1=6)**

Q.1 What is the main purpose of fertilizers in agriculture? (CO1)

- a) Improve water retention
- b) Control weeds
- c) Provide nutrients to plants
- d) Prevent soil erosion

Q.2 Which fertilizer type is derived from animal or plant material? (CO1)

- a) Synthetic
- b) Organic
- c) Inorganic
- d) Chemical

Q.3 Which process is commonly used to produce ammonia? (CO2)

- a) Solvay process
- b) Contact process
- c) Ostwald process
- d) Haber-Bosch process

Q.4 Triple super phosphate is richer in (CO3)

- a) Phosphorus
- b) Potassium
- c) Nitrogen
- d) Calcium

Q.5 The NPK value of a fertilizer represents (CO4)  
 a) Density of fertilizer b) Nutrient content  
 c) Toxicity level d) pH value

Q.6 One common microorganism used in bio-fertilizers is (CO4)  
 a) Nitrosomonas b) Bacillus  
 c) Rhizobium d) Lactobacillus

### Section-B

**Note:** Objective/Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Name one common catalyst used in the fertilizer industry. (CO1)

Q.8 Write chemical formula of Urea. (CO2)

Q.9 Give an example of a nitrogenous fertilizer. (CO2)

Q.10 Write full form of DAP. (CO3)

Q.11 Ammonium nitrate is a type of phosphoric fertilizer. (True/False) (CO2)

Q.12 Give a disadvantage of mixed fertilizer. (CO4)

### Section-C

**Note:** Short answer type Question. Attempt any eight questions out of Ten Questions. (8x4=32)

Q.13 Classify different types of fertilizers. (CO2)

Q.14 Write any four disadvantages of using fertilizers. (CO2)

Q.15 Describe any one method of ammonia production (CO2)

Q.16 Draw neat and clean flow sheet of Urea production. (CO2)

Q.17 Discuss the process description of Diammonium phosphate production. (CO2)

Q.18 Describe the manufacturing process of potassium sulphate. (CO2)

Q.19 Write any four advantages of compound fertilizers. (CO2)

Q.20 Discuss about various materials used in manufacturing of mixed fertilizers. (CO2)

Q.21 Discuss any four advantages bio-fertilizers over conventional fertilizers. (CO2)

Q.22 Describe the effects of different types of micronutrients. (CO2)

### Section-D

**Note:** Long answer questions. Attempt any two questions out of three Questions. (2x8=16)

Q.23 Explain manufacturing process of ammonium sulphate with the help of neat and clean flow sheet. (CO2)

Q.24 Discuss in detail about manufacturing process of triple super phosphate with the help of neat and clean flow sheet. (CO2)

Q.25 Explain in detail any two of the following:  
 i) Overview of fertilizer industry in India (CO1)  
 ii) Manufacturing of NPK fertilizers (CO4)  
 iii) Different types of micronutrients (CO4)