

[This question paper contains 4 printed pages]

5219

Your Roll No

B.Sc. Prog./II

J

ACP-202 – Fertilizers, Herbicides, Fungicides

(NC – Admissions of 2005 & onwards)

Time 3 Hours

Maximum Marks 75

*(Write your Roll No on the top immediately
on receipt of this question paper)*

Attempt any five questions

All questions carry equal marks

1 Answer the following

- (i) Discuss the types of fertilizers with suitable examples
- (ii) Define Algacide, fungicide and ovicides
- (iii) Discuss selective and total weed killers with examples
- (iv) Discuss, fungistatic state, protective action in reference of fungicides
- (v) Discuss denitrification (3×5)

2 Explain the following

- (i) In crop plants shows very little loss of paraquat in comparison of plants in open

P T O

- (ii) What for the Bordeaux mixture and Zineb are used? Which is preferred for blight in Potato in hilly areas Write the structural formula for Bordeaux mixture
- (iii) What for the Ureas are used? What happens when Isoproturon is heated with dilute NaOH Solu
- (iv) Photosynthetic inhibitors
- (v) Macro and Micro-nutrients (3×5)

3 Elaborate the following in reference of Herbicides

- (i) Pre-emergence and Post-emergence
- (ii) Phytotoxicity with solubility
- (iii) Killer and plant growth regulators
- (iv) Preparation of Simazine from cyanuric chloride
- (v) Aromatic Carbamates (3×5)

4 (i) Write the preparation of chlorosulfuron What for it is used? Name the inhibition related activity

(ii) How the paraquat is prepared? Discuss its action in terms of

- (a) Selectivity (b) Crops

(iii) In Aryl alkanolic acid group herbicides, the ester or its quaternary ammonium salts are used instead of acids. why ?

(iv) Write the structural formula for the following

(a) Dichlorobenzil (b) Asulam (c) MCPA

(v) What for the following are used, write their structural formula also

(a) Dicamba (b) Bromacil (3×5)

5 (i) Discuss the action of fungicides in reference of following

(a) Contact

(b) Systemic

(c) Interference in energy production

(d) Interference in Bio-synthesis (6)

(ii) What for the Benzimidazoles are used ? Illustrate the preparation of a Compound which belongs to this group Give chemical equations also (3)

(iii) What are dicarbamates ? Give the preparation of Thiram ing chemical equations Name the crops where it is used (3)

- (iv) Write the structural formula for the following
- (a) Propiconazole
 - (b) Metalaxyl
 - (c) Thiophanates (3)

- 6 (i) Discuss the economic aspect of fertilizers
- (ii) Discuss Ammonification
- (iii) Name the nitrogen compound, which is absorbed by the plant roots. How this compound is manufactured from nitrogen? State the process step by step using chemical equations also
- (iv) Discuss nitrogen cycle
- (v) Why Potassium & Phosphate fertilizers are also important? (3×5)

7 Write short notes

- (i) Fumigants and fumigation
- (ii) Heavy metal compounds as fungicides
- (iii) Pesticide and groundwater Pollution (5×3)