

Roll No. : (in figure) _____ (in words) _____

Student Index No. _____ Regn. No. _____ of _____

Time : Two Hours**Full marks : 50**

Questions are of value as indicated in the margin

Part - I
(Objective and Short Answer Type)
(Use only ball point pen)

Time : 30 minutes**Full marks : 20**

- Note:** 1. Answer in question paper itself.
2. Striking, rewriting or overwriting are not allowed in the objective type questions.

1. **Tick (✓) the correct alternatives (any ten):** 1×10=10
- i) Deltamethrin contains two _____ atoms a) Chlorine b) Bromine c) Fluorine d) Iodine
 - ii) Which one is synthetic pyrethroid? A) Piperin b) Malathion c) DDT d) Cypermethrin
 - iii) Fungicide Mancozeb is a) Extremely toxic b) Highly toxic c) Slightly toxic
d) Moderately toxic
 - iv) Glyphosate is _____ a) Carbamate fungicide b) Organophosphorus herbicide
c) Organophosphorus insecticide d) Neonicotinoid insecticide
 - v) Pyrethroids were isolated from which of the following plant?
a) *Derris elliptica* b) *Nicotiana rustica* c) *Tephrosia purperia*
d) *Chrysanthemum cinerariifolium*
 - vi) Chlorpyrifos contain one basic heterocyclic ring - what is that?
a) Pyridine b) Imidazole c) Pyrrole d) Quinoline
 - vii) Which one is dithiocarbamate fungicide? a) Carbendazim b) Chlorothalonil
c) Ethion d) Mancozeb
 - viii) The best chemical for control of late blight in Potato would be _____
a) Carbendazim b) Flusilazole c) Mancozeb d) Elemental sulphur
 - ix) Cholinesterase inhibition property is very common in _____
a) Organophosphorus insecticides b) Synthetic pyrethroids
c) Organochlorine insecticides d) Dithiocarbamate compounds
 - x) Butachlor belongs to the chemical family a) Acetamides b) Oxyacetamides
c) Chlorinated cyclodiene d) Chloroacetamides
 - xi) Triple superphosphate is made by reacting phosphate rock with _____
a) Nitric acid b) Phosphoric acid c) Sulphuric acid d) Perchloric acid
 - xii) Ammonium nitrate is coated with limestone powder to _____
a) Increase its nitrogen b) Cut down its production cost
c) Avoid the risk of explosion d) Add extra nutrient as fertiliser
 - xiii) Prilling tower is found in the flowsheet for the manufacture of _____
a) Ammonium Sulphate b) Calcium ammonium nitrate c) Urea d) Single super phosphate

(2)

2. Write down the structure, chemical name, trade name and use of **any five** of the following pesticides 2×5=10

i) Endosulfan

ii) Chlorpyrifos

iii) Cabofuran

iv) Deltamethrin

v) Carbaryl

vi) Malathion

vii) Glyphosate

viii) Carboxin

B.Sc. (Honours) Agriculture Examination, 2019

Semester-IV

Course No: SSC-222

(Agrochemicals)

Part - II

(Descriptive Type)

Time : 90 Minutes

Full marks : 30

Questions are of value as indicated in the margin

Answer *any three* questions

3. Write down the name and structures of acid and alcohol involving in the synthesis of pyrethrum. Why is it used as against house hold pests? Describe in brief the classical properties of pyrethrum. 5+1+4=10
 4. What types of triazines are found? Write down the structures and name of symmetrical triazine derivatives. Outline the synthesis of carbendazim and dimethoate. 2+2+6=10
 5. Define pesticide, Based on toxicity how pesticides are classified by CIB, India? Write a short note on use pattern of pesticides in India. Mention the Non-agricultural use of pesticides. 2+3+3+2=10
 6. Write short notes on **any five** of the followings : 2×5=10
 - i) Fertilizer control order ii) Insecticide act iii) Nitrification inhibition
 - iv) Biomagnification of pesticides v) Pest resistance and resurgence vi) Chemistry of DDT
 - vii) Compatibility of fertilizers for preparation of mixed fertilizer
 7. Write the advantages and disadvantages of preparation of mixed fertilizer. Discuss different processes of nitrophosphate preparation. How urea is transformed to nitrate after application to soil? 3+3+4=10
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