Seat No.	

Set P

M.Sc. (Agrochemicals and Pest Management) (Semester - I) (New) (NEP CBCS) Examination: March/April – 2026
Chemistry of Pesticides, Soil Science and Fertilizers (2301101)

Day & Date: Friday, 17-04-2026 Max. Marks: 60
Time: 03:00 PM To 05:30 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 A) Choose correct alternative. (MCQ) **08**

1) Pyrethrum, a naturally occurring pesticide is derived from _____.
   a) Crocus b) Daffodils
   c) Chrysanthemum d) Butter cup

2) The most commonly used pesticide is benzene hexachloride (BHC). It belongs to the _____.
   a) Organophosphates b) Triazine
   c) Organochlorine d) Carbamate

3) Which one of the following is not micronutrient?
   a) Zn b) Cl
   c) Mo d) P

4) Hydrogen ion concentration is increases in soil, causes ____.
   a) active acidity b) active alkalinity
   c) salinity d) None of these

5) The amount of Nitrogen from ammonia is equal to ____.
   a) 33 % b) 40 %
   c) 46 % d) 78 %

6) Which of the following is not pesticide?
   a) Boric acid b) Allethril
   c) Rozol d) Alprazolam

7) The chemical composition of single super phosphate is ____.
   a) $[3\ Ca\ (CH_2PO_4)_2\ H_2O]$
   b) $Ca_3\ (PO_4)_2$
   c) $[Ca\ (H_2PO_4)_2\ H_2O]$
   d) $[3Ca\ (CH_2PO_4)_2\ H_2O]$

8) Breaking of seed dormancy is made by the treatment of ____.
   a) Auxin b) Gibberellic acid
   c) Cytokinin d) CCC

B) Fill in the blanks. **04**

a) The most commonly used pesticide toxaphene is _____.
b) FYM stands for ____.
c) ____ is an example of bulky organic manure.
d) Most of the pesticides are permutated in ____.

Q.2 Answer the following. (Any Six) **12**

a) What is Chemical pesticide?
b) What is Green manure?
c) What is nitrogenous fertilizer?
d) Define micronutrients.
e) Define pesticides.
f) Write applications of auxins.
g) What are bio fertilizers?
h) What is systematic pesticide?

Q.3 Answer the following. (Any Three) **12**

a) Write a note on class of pesticide.
b) Write a short note on liquid manure.
c) Write a note on Bangalore method of composting.
d) Classification of fertilizers.

Q.4 Answer the following. (Any Two) **12**

a) Enlist types of pesticides. Write environmental fates of herbicides.
b) Explain role of micronutrients in agriculture.
c) Write a short note on Blue green algae as a Biofertilizer.

Q.5 Answer the following. (Any Two) **12**

a) Write in brief about manufacture of urea.
b) What is Gibberellic acid? Write the practical applications of GA.
c) Explain in brief concept of vermicomposting.

SLR-PA-2

Seat No.	

Set P

M.Sc. (Agrochemicals and Pest Management) (Sem - I) (New) (NEP CBCS) Examination: March/April - 2026
Introductory and Industrial Entomology (2301102)

Day & Date: Monday, 20-04-2026 Max. Marks: 60
Time: 03:00 PM To 05:30 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 A) Choose correct alternative. (MCQ) **08**

1) Midgut of insects is called as _____.
   a) Malphigian tubules b) Ovary
   c) Mesenteron d) testes

2) _____ type of antennae is found in Silkworm.
   a) Bipectinate b) Digging
   c) Natatorial d) Jumping

3) _____ is the scientific name of European bee.
   a) *Apis mellifera* b) *Apis dorsata*
   c) *Apis indica* d) None of the above

4) _____ species of silkworm found on Castor leaves.
   a) *Bombax mor* b) *Attacus ricinni*
   c) *Antheraea paphia* d) *Apis mellifera*

5) Saltatorial legs are found in _____.
   a) Cockroach b) Grasshopper
   c) Aphid d) Thrips

6) _____ type of antennae are found in mosquito.
   a) Pilose b) Digging
   c) Natatorial d) Jumping

7) Lacewings are act as _____ on the sucking pest.
   a) Parasitoids b) Host
   c) Parasites d) Predators

8) In California the cottony cushion scale on citrus controlled by _____.
   a) Water bug b) Lady bird beetle
   c) Housefly d) White grub

B) Fill in the blanks. **04**

1) _____ species of silkworm found on Castor leaves.
2) _____ is the scientific name of Indian bee.
3) _____ type of mouth part present in Aphid.
4) Blood of insect is called as _____.

Q.2 Answer the following. (Any Six) **12**

a) Define Insect pest.
b) What are control measures of cockroach?
c) Write the scientific name of grasshopper and write nature of damage.
d) Give the taxonomic classification of slug.
e) Enlist the insect having Industrial importance.
f) Draw the labelled diagram of insect leg.
g) Write uses of honey.
h) Write uses of NPV.

Q.3 Answer the following. (Any Three) **12**

a) Write the control measures and nature of damage caused by Termites.
b) Write a note on parasitoids.
c) Describe the sponging type of mouth parts.
d) Describe the life cycle of Nematodes.

Q.4 Answer the following. (Any Two) **12**

a) Describe the Biting and chewing type of mouth parts in Insect.
b) Write a note on sericulture.
c) Write the general description and morphology of insects: Head, Thorax and Abdomen of insect.

Q.5 Answer the following. (Any Two) **12**

a) Explain in detail production of Trichogramma.
b) Describe the general life cycle pattern of Mango stem borer give its nature of damage and control measure.
c) Enlist the types of honey bee. Describe the colony organization of honey bee.

SLR-PA-3

Seat No.	

Set P

M.Sc. (Agrochemicals and Pest Management) (Sem - I) (New) (NEP CBCS) Examination: March/April – 2026
Plant Pathology and Weed Management (2301106)

Day & Date: Wednesday, 22-04-2026 Max. Marks: 60
Time: 3:00 PM To 05:30 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 A) Choose correct alternative. **08**

1) _____ is the relative capability of a pathogen to cause the disease.
   a) Pathogenicity b) Invasion
   c) Colonization d) Infection

2) Reproduction in fungi is carried out by _____ type.
   a) Sexual b) Asexual
   c) Vegetative d) All of the above

3) The disease Blight of Bean is caused by _____.
   a) Xanthomonas aculli
   b) Xanthomonas citri
   c) Xanthomonas axonopodis
   d) Xanthomonas campestris

4) The Little leaf of bringal disease is caused by _____.
   a) Viruses b) MLO
   c) Bacteria d) Algae

5) Based on morphology, the weed is classified into _____.
   a) Grass b) Sedge
   c) Broad leaved weeds d) All of these

6) The hand weeding is _____ method of weed control.
   a) Biological b) Physical
   c) Chemical d) None of these

7) Papaya ring rot disease caused by _____.
   a) TMV b) SMV
   c) BBTV d) PRSV

8) Powdery mildew exhibits symptoms on _____.
   a) upper leaf surface b) lower leaf surface
   c) both ‘a’ and ‘b’ d) None of above

B) Fill in the blanks. **04**

1) Plant pathology is also known as _____.
2) Red rot of sugar cane is caused by _____.
3) The Greening Disease of Citrus is transferred by _____ insect.
4) The Koch Postulates was proposed by _____.

Q.2 Answer the following. (Any Six) **12**

a) Write the general characters of Virus.
b) Define plant epidemiology.
c) Define weeds.
d) What is the disease triangle?
e) Define plant disease inoculation.
f) Define Chemical method of weed control with two chemical examples.
g) Define Disease cycle.
h) Enlist the chemical weapons of plant pathogens.

Q.3 Answer the following. (Any Three) **12**

a) Write a short note on Koch Postulates.
b) Explain the slow and rapid epihytotic.
c) Explain Red rot of Sugarcane with respect to causal organism, symptoms, and control measures.
d) Write a note losses caused by weeds.

Q.4 Answer the following. (Any Two) **12**

a) Write a note on stages of plant disease development.
b) Explain the following disease of plant with respect to causal organism, symptoms and control measures.
   i) Leaf curl of Chillies
   ii) Grassy shoot disease of Sugarcane
c) Explain the following disease of plant with respect to causal organism, symptoms and control measures.
   i) Bacterial wilt of Banana
   ii) Ergot of Bajara

Q.5 Answer the following. (Any Two) **12**

a) Explain in detail the classification of weeds.
b) Enlist the methods of weed control. Explain physical & biological methods of weed control.
c) Explain the following disease of plant with respect to causal organism, symptoms and control measures.
   i) Bacterial blight of Bean
   ii) Little Leaf of Brinjal

SLR-PA-5

Seat No.	

Set P

M.Sc. (Agrochemicals and Pest Management) (Semester - I) (New) (NEP CBCS) Examination: March/April – 2026
Research Methodology (2301103)

Day & Date: Friday, 24-04-2026 Max. Marks: 60
Time: 03:00 PM To 05:30 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 A) Choose correct alternative. (MCQ) 08

1) What is the purpose of research design?
   a) To develop a hypothesis
   b) To select a sample
   c) To determine the methods for data collection and analysis
   d) All of the above

2) Which of the following is not a type of research design?
   a) Experimental design b) Descriptive design
   c) Correlational design d) Probability design

3) pH meter can be consider as voltage source with which of the following internal resistance?
   a) Very low resistance
   b) Moderate resistance
   c) Very high internal resistance
   d) No resistance

4) The electrolyte solution within the glass electrode (ref) of the pH meter is _____.
   a) Saturated KCL b) Con. HCL
   c) Dilute KCI d) Dilute HCL

5) What is the neutral value of the pH scale?
   a) Less than 5 b) Equal to 7
   c) Less than 8 d) Less than 10

6) The main concept behind doing research is to _____.
   a) Study and explore knowledge
   b) Start with a pre-defined and clear-cut objective
   c) Get new ideas
   d) Define clear objective

7) Formulative research studies is a category of research that aims to _____.
   a) Achieve new insights of a concept
   b) Analyze characteristics of something
   c) Determine the frequency with which something occurs
   d) Test relationship between variables

8) In potentiometer, which of the following is considered the standard electrode?
   a) Calcium Electrode
   b) Hydrogen Electrode
   c) Potassium Electrode
   d) Copper Electrode

B) Fill in the blanks. **04**

1) The first step of research is _____.
2) Database is a searchable collection of _____.
3) A solution with a pH below 7 is _____.
4) In an electrolytic cell, metal passes in to ions at _____.

Q.2 Answer the following. (Any Six) **12**

a) What is research?
b) Write two differences between qualitative and quantitative research.
c) Short note on Research problem.
d) What is Sci-finder?
e) What are steps in research?
f) Define pH?
g) Write application of potentiometer.
h) What is EMF of cell?

Q.3 Answer the following. (Any Three) **12**

a) Write the objectives of research.
b) Write the application of pH meter.
c) Write short note on conductivity meter
d) Give the criteria of good research.

Q.4 Answer the following. (Any Two) **12**

a) Explain scientific writing & ethics in research
b) Describe in detail of research types.
c) Write the use of computer-based equipment for pesticide analysis.

Q.5 Answer the following. (Any Two) **12**

a) Explain glass electrode and reference electrode of pH meter.
b) Write a note on copy write -academy or plagiarism.
c) Enlist types of Research design and explore any one type of Research design.

Seat No.	

Set P

M.Sc. (Agrochemicals and Pest Management) (Semester - II) (New)
(NEP CBCS) Examination: March/ April – 2026
Chemistry of Pesticides and Their Formulations (2301201)

Day & Date: Thursday, 16-04-2026 Max. Marks: 60
Time: 11:00 AM To 01:30 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 A) Choose correct alternative. (MCQ) **08**

1) Methomyl is synthesized from _____.
   a) Sodium cyanide b) MthylCyanate
   c) Methyl Isocyanate d) Vinyl Cyanide

2) N - methyl chloroacetamideis used in the synthesis of _____.
   a) Monochrotophos b) Phorate
   c) Quinalphos d) Dimethoate

3) Sulphur formulations are _____ type of fungicides.
   a) Contact b) Stomach
   c) Systemic d) Desiccant

4) Dimethoate contains _____ Sulphur atoms.
   a) Two b) One
   c) Three d) Five

5) The aldicarb is _____ type of pesticide.
   a) Contact b) Stomach
   c) Systemic d) Attractant

6) Phosgene gas is used for the synthesis of _____.
   a) 2, 4-D b) Methoxychlor
   c) Monochrotophos d) Carbaryl

7) Claisen rearrangement is used for the synthesis of _____.
   a) Endosulphan b) Butachlor
   c) Bendiocarb d) Dicofol

8) Arsenic compounds are used as _____.
   a) Fungicides b) Insecticides
   c) Herbicides d) Rodenticides

B) Fill in the blanks. **04**

1) Mosquito repellent mainly contains _____.
2) Alpha naphthol is used in the preparation of _____.
3) _____ is prepared by chlorination of nitrobenzene.
4) Carbon disulphide is used as _____.

Q.2 Answer the following. (Any Six) **12**

a) What are oxime carbamates?
b) Write the structure of methomyl.
c) Write the uses of dimethoate.
d) Draw the structure of chloropyriphos.
e) What is gammexane?
f) Write the uses of endosulphan.
g) Write the uses of HCN in agriculture.
h) Write the uses of arsenic compounds.

Q.3 Answer the following. (Any Three) **12**

a) What are fumigants? Write uses of carbondisulphide.
b) Write the uses of thallium salts as a rodenticide.
c) Write synthesis and properties of dicofol.
d) Write the synthesis and uses of butachlor.

Q.4 Answer the following. (Any Two) **12**

a) Describe structure activity relationship of carbamate pesticides with reference to acetylcholine.
b) Write the synthesis, properties, uses and environmental fate of malathion.
c) Write the preparation and applications of tin compounds.

Q.5 Answer the following. (Any Two) **12**

a) Write synthesis, properties and uses of Baygon.
b) Write synthesis, properties, uses and environmental fate of Phorate.
c) Describe in detail persistence of pesticides in environment and biota.

Seat No.	

Set **P**

M.Sc. (Agrochemicals and Pest Management) (Sem - II) (New) (NEP CBCS) Examination: March/April – 2026
Analytical Techniques for Agrochemicals (2301202)

Day & Date: Saturday, 18-04-2026 Max. Marks: 60
Time: 11:00 AM To 01:30 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 A) Choose correct alternative. (MCQ) **08**

1) In flame emission photometers the measurement of _____ is used for quantitative.
   a) Colour b) Intensity of emitted light
   c) Velocity d) Frequency

2) IR spectroscopy is mainly used to identify: _____.
   a) Molecular weight b) Functional groups
   c) Atomic number d) Crystal structure

3) Complexometric titration is mainly used for the determination of _____.
   a) Halide ions b) Metal ions in solution
   c) Non-metal ions d) Acid and Base

4) In which field is flame photometry commonly used to analyzed soil sample?
   a) Clinical chemistry b) Environmental chemistry
   c) Industrial chemistry d) Agricultural chemistry

5) Which of the following is not a fuel used in flame photometer?
   a) Acetylene b) Propane
   c) Hydrogen d) Camphor Oil

6) Which of the following is a not development technique in paper chromatography?
   a) High pressure liquid chromatography
   b) Ascending chromatography
   c) Descending chromatography
   d) Two dimensional chromatography

7) Paper chromatography is a separatory technique that is used to separate ____.
   a) Simple mixture b) Complex mixture
   c) Viscous Mixture d) Metals

8) In the titration of a strong acid and a weak base which of the following is used an indicator _____.
   a) Methyl indicator b) Phenolphthalein
   c) Thymol blue d) Fluorescent

B) Fill in the blanks. **04**

a) Gravimetric analysis is a _____ in chemistry.
b) A redox reaction involve the transfer of electron between two species one of which is Oxidized and the other is _____.
c) Ion exchange chromatography is most often performed in the form of _____.
d) Ultraviolet spectroscopy is a technique that measure the absorption of ultraviolet and _____ light by a sample.

Q.2 Answer the following. (Any Six) **12**

a) What is finger print region?
b) Write the short note on gravimetric estimation.
c) Which primary light source used in atomic absorption spectrometry (AAS)?
d) Short note on Redox titration.
e) Write the principles of Infrared spectroscopy.
f) What is solvent extraction?
g) What is stretching and bending vibration?
h) What is the reason for studying IR spectroscopy?

Q.3 Answer the following. (Any Three) **12**

a) Application of flame photometer.
b) Explain precipitate titration with example.
c) What is thin layer chromatography?
d) Write the principle of polarimetry.
e) Brief note on ion exchange and ion chromatography.

Q.4 Answer the following. (Any Two) **12**

a) Explain the ultraviolet spectroscopy.
b) Explain acid base titration.
c) Explain column chromatography.

Q.5 Answer the following. (Any Two) **12**

a) Write the component of atomic absorption spectrometry.
b) Explain principles, fundamental mode of vibrations.
c) Explain paper chromatography.

SLR-PA-8

Seat No.		Set	P

M.Sc. (Agrochemicals and Pest Management) (Sem - II) (New)
(NEP CBCS) Examination: March/ April – 2026
Agronomy, Biotechnology and Economic Entomology (2301206)

Day & Date: Tuesday, 21-04-2026 Max. Marks: 60
Time: 11:00 AM To 01:30 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 A) Choose correct alternative. **08**

1) _____ is the father of tissue culture.
   a) Bonner b) Laibach
   c) Haberlandt d) Gautheret

2) _____ crop known cash crop.
   a) Sugarcane b) Wheat
   c) Soybean d) Groundnut

3) Life cycle includes egg, larva, pupa and adult is called as _____.
   a) Parthenogenesis b) complete metamorphosis
   c) Incomplete metamorphosis d) commencelism

4) The crop does best soil for groundnut is _____ soil.
   a) Black cotton b) sandy loam
   c) Red d) Rocky

5) _____ is the pest of livestock.
   a) Cattle louse
   b) lesser grain borer
   c) Rice weevil
   d) pentatomid bug…. belongs to phylum

6) The botanical name of Jawar crop is _____.
   a) *Sorghum biocolor* b) *Solanum melong*
   c) *Solanum melongena* d) *Solanum meloongena*

7) Freedom from inert matter and defective seeds _____.
   a) Genetic purity b) Physical purity
   c) Germination purity d) Disease free purity

8) _____ belongs to phylum Mollusca.
   a) Grasshopper b) White grub
   c) Snail d) Aphid

B) Fill in the blanks. **04**

1) Limax species is species of _____.
2) _____ is economical plant part of Pomegranate.
3) Insect having jointed appendages belong to phylum _____.
4) _____ culture is used to raise virus free plants.

Q.2 Answer the following. (Any Six) **12**

a) Write ecological factor on Guava.
b) Define Somatic Hybridization.
c) Write Control measure lesser grain borer.
d) Write seed and sowing of soybean crop.
e) Control measure for pest of livestock.
f) What is vertebrate pest?
g) Write soil, climate of Gram.
h) Define pest.

Q.3 Answer the following. (Any Three) **12**

a) Write the cultivation practices in Brinjal crop.
b) Write the concept of genetic engineering.
c) Write the cultivation practices in Wheat crop.
d) Describe the habit habitat and control Measure of bedbug.

Q.4 Answer the following. (Any Two) **12**

a) Write advantages and disadvantages of tissue culture technique.
b) Describe termite in brief with their coloney organization.
c) Write agronomical practices of sugarcane crop.

Q.5 Answer the following. (Any Two) **12**

a) Write a note on White grub and Grasshopper. Give their nature of damage and control measure.
b) Define seed technology explain classes of seed.
c) Write soil, climate, seed and sowing, harvesting of groundnut.

Seat No.	

Set **P**

M.Sc. (Agrochemicals and Pest Management) (Semester - III) (New) (NEP CBCS) Examination: March/April – 2026
Pesticide Residues and Analysis of Agrochemicals (2301301)

Day & Date: Friday, 17-04-2026 Max. Marks: 60
Time: 11:00 AM To 01:30 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 A) Choose correct alternative. **08**

1) Which of the following doesn't give NMR Spectra?
   a) Boron b) Nitrogen-15
   c) Oxygen 16 d) All

2) Pesticide can be divided into _____ categories based on half lives.
   a) 1 b) 4
   c) 5 d) 3

3) Rate decrease with depth in soil, where condition such as moisture, temperature, and aeration are less favorable for _____.
   a) Microbial b) Chemical
   c) Physical d) Not

4) HPLC used in _____.
   a) Pharmaceutical chemistry b) Biochemical analysis
   c) Chemical analysis d) All

5) In mass spectroscopy the compound in vapour state is bombarded with energy _____.
   a) 17eV b) 70eV
   c) 13eV d) 50eV

6) Pyrethrum, a naturally occurring pesticide is derived from _____.
   a) Crocus b) Daffodil
   c) Chrysanthemum d) Buttercup

7) DDT is _____.
   a) Biodegradable b) Non-biodegradable
   c) Growth enhancer d) Tranquilizer

8) The main component of high performance liquid chromatography are _____.
   a) High pressure pump b) Injector system
   c) Detector d) All

B) Fill in the blanks. **04**

a) In pesticide the root word is Latin word ‘’cide” which mean _____.
b) _____ type of radiations are observed in NMR spectroscopy.
c) HPLC is known as _____.
d) The actual value of nuclear spin depends on _____ and _____ number of nuclei.

Q.2 Answer the following. (Any Six) **12**

a) Explain chemical degradation.
b) What is Isotopes?
c) Pesticide residue in atmosphere.
d) Explain Pesticide residue in water.
e) What is mass spectra?
f) Point and Non-point pollution.
g) What is the effect of pesticide residue in soil?
h) What is effect of pesticide on human life?

Q.3 Answer the following. (Any Three) **12**

a) Explain microbial degradation.
b) Explain Chemical degradation.
c) Explain photochemistry of pesticide.
d) Advantages of Thin layer chromatography.

Q.4 Answer the following. (Any Two) **12**

a) Give full account effect of pesticide on human life.
b) Schematic diagram of mass spectroscopy.
c) Sketch the PMR spectrum of the Ethanol.

Q.5 Answer the following. (Any Two) **12**

a) How are pesticide harmful to the environment and human being?
b) Describe the principle of HPLC and explain briefly various types of detector used in HPLC.
c) Shielding and Deshielding in NMR.

Seat No.	

Set **P**

M.Sc. (Agrochemicals and Pest Management) (Sem - III) (New) (NEP CBCS) Examination: March/April – 2026
Advances in Pest Control (2301302)

Day & Date: Monday, 20-04-2026 Max. Marks: 60
Time: 11:00 AM To 01:30 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 A) Choose correct alternative. **08**

1) Sandwich method is the known amount of insecticide is put between _____ of the batch of insect.
   a) Two leaves b) Two insect
   c) Two crop d) Two flower

2) Bioassay is the measurement of the potency of any stimulus which may be _____.
   a) Chemical b) Physical
   c) Biological d) All of the above

3) Trail pheromone released by insect for _____ purpose.
   a) mating b) protection
   c) feeding d) none of the above

4) While handling duster or sprayer one should have knowledge of _____.
   a) Insecticides Mode of action
   b) Insect pest habitat
   c) Technique of handling agriculture appliances
   d) All of the above

5) Which of the following is not true about hydroponics?
   a) Requires high investment
   b) Technical knowledge required
   c) Can be misused to cultivate banned crops
   d) Plants through hydroponics cannot be cultivated everywhere

6) The Photomigration method of bioassay is performed by using _____ response of insect larvae.
   a) Phototaxic b) Dry Film
   c) Photo reflection d) Photo merge

7) _____ is included under the pesticides.
   a) Avicides b) Insecticides
   c) Fungicides d) All of the above

8) Antibiotics refers to the adverse effect of the host plant on the _____ of insect.
   a) Oviposition b) biology
   c) mating d) tolerance

B) Fill in the blanks. **04**

1) Trichogramma is _____.
2) Pheromone released by one sex only but elicits response in both the sexes of the species is called as _____.
3) Pyrethroids extracted from _____ part of *Chrysanthemum* plant.
4) Bucket pump sprayer have _____ shaped handle.

Q.2 Answer the following. (Any Six) **12**

a) Define pest.
b) Write Advantages of pesticide.
c) Write two function power operated sprayer.
d) Define pesticide.
e) IPM
f) Write two Medicinal Plant with Scientific Name.
g) Define Host.
h) Write Two name of Chemostrilent.

Q.3 Answer the following. (Any Three) **12**

a) Write a note on chemosterilents.
b) Write a note on power operated sprayer.
c) Write a note on hand rotator duster.
d) Define Bioassay and write a note on sandwich method of bioassay.

Q.4 Answer the following. (Any Two) **12**

a) Give importance and side effects of Neem based preparations in insect pest management.
b) Write a note on attractants and repellents.
c) Explain cultural and mechanical method of pest control.

Q.5 Answer the following. (Any Two) **12**

a) Explain types of damage caused by insects to plants and their estimation.
b) Define bio-efficacy of pesticides and explain any four methods of bioassay.
c) Explain insect insecticide resistance and resistance management.

SLR-PA-12

Seat No.	

Set P

M.Sc. (Agrochemicals and Pest Management) (Semester - III) (New) (NEP CBCS) Examination: March/April – 2026
Diseases of Crop Plants (2301306)

Day & Date: Wednesday, 22-04-2026 Max. Marks: 60
Time: 11:00 AM To 01:30 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 A) Choose correct alternative. (MCQ) **08**

1) Sunflower seed are used as an _____.
   a) Feed purpose b) Oil purpose
   c) Food purpose d) None of above

2) _____ is the economic product of Bajra.
   a) Wood b) Leaf extract
   c) Latex d) Seed

3) Downy mildew of Soybean caused due to _____.
   a) odium sp. b) plasmopara halstedi
   c) fusarium d) None of above

4) Applications of appropriate foliar fungicides can help control the disease but care should be taken as some labels do not allow seeds from treated plants to be used as food or feed.
   a) Acitamapride b) Benzer
   c) Nuvan d) Thirum

5) _____ causes Anthracnose of cotton.
   a) Colletotrichum truncatum b) Gleosporium ampelfagum
   c) Melanoconium fulgenium d) Wilt

6) Early leaf spot in Groundnut causes _____.
   a) wilt b) cercospora arachidicola
   c) powdery mildew d) black spot

7) Rust of Castor caused due to fungus _____.
   a) Gleosporium ampelfagum b) Alternaria alternate
   c) Puccinia carthami d) Ceratocystis fimbriata

8) Root development is reduced and finally seedlings die in _____ diseases.
   a) Fusarium b) Alternaria alternata
   c) rust d) Cercospora

B) Fill in the blanks. **04**

1) _____ is example of systemic fungicide.
2) Soil Application of fungicide is control _____.
3) Albugo Candida caused due to _____.
4) Drip irrigation method is control _____ disease.

Q.2 Answer the following. (Any Six) **12**

a) Write the Symptoms rust of wheat.
b) Write the common diseases of cruciferous.
c) Enlist the general of fungal disease.
d) Write the symptoms of Rust on peas.
e) Write the control Wilt of Tomato.
f) Write the control Leaf spot of castor.
g) Enlist fungal diseases of Grams.
h) Write the symptoms of Leaf spot of Caster.

Q.3 Answer the following. (Any Three) **12**

a) Write the causal organism, symptoms wilt of soybean.
b) Explain the Powdery Mildew of Okra.
c) Enlist the diseases Onion of write symptoms of Downy mildew.
d) Write the common fungal diseases of Tomato write control of powdery mildew.

Q.4 Answer the following. (Any Two) **12**

a) Enlist the diseases of Bajra explain in detail Ergot.
b) Write the general symptoms and control on Downy mildew.
c) Write the common Physical, Chemical and Biological control method of fungal disease.

Q.5 Answer the following. (Any Two) **12**

a) Enlist the diseases of Sugarcane explain any one.
b) Write brief the Anthracnose diseases of Cotton.
c) Enlist the diseases of Groundnut write details leaf spot.

SLR-PA-14

Seat No.	

Set P

M.Sc. (Agrochemicals and Pest Management) (Semester - IV) (New) (NEP CBCS) Examination: March/April – 2026
Manufacture of Agrochemicals (2301401)

Day & Date: Thursday, 16-04-2026 Max. Marks: 60
Time: 03:00 PM To 05:30 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 A) Choose correct alternative. (MCQ) 08

1) Indole-3- Acetic acid is most common naturally occurring plant harmone of _____ class.
   a) Gibberellins b) Auxin
   c) Ethylene d) Cytokinin

2) Captan is widely used broad-spectrum _____.
   a) Fungicide b) Herbicide
   c) Pesticide d) All above

3) Drying involves the removal of relatively small amount of _____ from the solid material.
   a) Solid b) Liquid
   c) Gas d) All of these

4) Chlorothalonil is used as _____.
   a) Herbicide b) Fungicide
   c) Rodenticide d) Insecticide

5) Maneb is _____.
   a) Herbicide b) Pesticide
   c) Fungicide d) None of these

6) The full form of 2, 4-D is_____.
   a) 2, 4 -Dichlorophenoxyacitic acid
   b) 2, 4 -Dichlorophenoxycitric acid
   c) 2, 4 -Dichlorophenoxyhydrochloric acid
   d) All above

7) The performance of an evaporator is evaluated in terms of _____.
   a) Economy b) Efficiency
   c) Capacity d) Capacity & Economy

8) A generalized fragment usually an ion produced by a disconnection is _____.
   a) Synthon b) Synthetic equivalent
   c) Reagent d) Target molecule

B) Fill in the blanks. **04**

1) The liquid that decomposes at its boiling points can be separated by _____.
2) In liquid-liquid solvent two solvent should be _____.
3) Development is the keys step between applied research and _____.
4) Maneb is manufactured by using ethylene diamine and _____ along with a manganese salt and a base.

Q.2 Answer the following. (Any Six) **12**

a) Advantages of small scale industries.
b) Application fractional disconnection.
c) Definition Retrosynthesis.
d) Characteristics of small scale industries.
e) Write a note on crystallizer.
f) Write note on chemo selectivity.
g) Write a note on spray dryer.
h) Write the types of filter.

Q.3 Answer the following. (Any Three) **12**

a) Explain solid-liquid extraction.
b) Describe R & D laboratory specification.
c) Explain gas absorption in towers.
d) Purpose, operation of multiple effect of Evaporators.

Q.4 Answer the following. (Any Two) **12**

a) Retrosynthesis of 2, 4, D.
b) Write note on BIS & ISI specification and standard.
c) Explain the small scale industry, administration & planning of small scale industry.

Q.5 Answer the following. (Any Two) **12**

a) Describe solid - liquid and liquid - liquid extraction.
b) Explain health education for workers.
c) Write objective HRD, function and methods HRD.

Seat No.	

Set **P**

M.Sc. (Agrochemicals and Pest Management) (Sem- IV) (New) (NEP CBCS) Examination: March/April – 2026
Agro-Based Marketing Management (2301402)

Day & Date: Saturday, 18-04-2026 Max. Marks: 60
Time: 03:00 PM To 05:30 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 A) Choose correct alternative. (MCQ) **08**

1) _____ is a key challenge in rural marketing.
   a) High literacy rates
   b) Easy access to technology
   c) Limited infrastructure
   d) Homogeneous demographics

2) Which of the following is a benefit of social media marketing?
   a) Increased website traffic
   b) Improved customer engagement
   c) Enhanced brand awareness
   d) All of the above

3) _____ is social media marketing.
   a) Using traditional media to promote products
   b) Using social media platforms to promote products or services
   c) Creating print advertisements
   d) Conducting market research

4) _____ is the primary role of marketing in agro-based businesses.
   a) To increase crop yields
   b) To promote and sell agricultural products
   c) To manage farm operations
   d) To develop new farming techniques

5) From the following _____ is not a basis for market segmentation.
   a) Geographic b) Behavioral
   c) Product quality d) Demographic

6) _____ is a component of a market plan.
   a) Financial forecast b) Data analysis
   c) Trend analysis d) All of the above

7) Market segmentation on the basis of region is called as _____ segmentation.
   a) psychological b) behavior
   c) geographical d) mix

8) Agro based marketing management used for _____.
   a) Social Devel
   b) growth of agro sector
   c) increase in sales
   d) none of above

B) State whether the following statement true or false. **04**

1) Market research helps businesses understand their target Audience.
2) Social media marketing is a form of offline marketing.
3) Market segmentation helps businesses tailor their marketing efforts to specific group.
4) Traditional values and cultural norms have little influence on consumer behavior in India.

Q.2 Answer the following. (Any Six) **12**

a) Market Plan
b) Rural Market
c) Social Media Marketing
d) Market Environment
e) Green Marketing
f) Market Segmentation
g) Marketing Skill
h) Market Research

Q.3 Answer the following. (Any Three) **12**

a) Buying process.
b) Problems of Agro-based marketing.
c) Nature of Green Marketing.
d) Importance of Social Media Marketing.

Q.4 Answer the following. (Any Two) **12**

a) Base of Market Segmentation.
b) Role of marketing in agro-based business.
c) Steps of Marketing Research.

Q.5 Answer the following. (Any Two) **12**

a) Types of Market.
b) Problems of rural marketing.
c) Factors Determining the Consumer Behavior.

SLR-PA-16

Seat No.	

Set P

M.Sc. (Agrochemicals and Pest Management) (Sem - IV) (New) (NEP CBCS) Examination: March/April – 2026
Advances in Pest Control and Diseases of Crop Plant (2301405)

Day & Date: Tuesday, 21-04-2026 Max. Marks: 60
Time: 03:00 PM To 05:30 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 A) Choose correct alternative. (MCQ) **08**

1) Powdery mildew caused due to fungus _____.
   a) *Fusarium oxysporium* b) *Odium* sp.
   c) *Alternaria solani* d) none of above

2) What is the purpose of biological control?
   a) To completely eliminate insect populations
   b) To manage insect populations at a level below economic damage
   c) To develop genetically modified insects
   d) To introduce new, non-native insect species

3) Clean cultivation is _____ method of disease control.
   a) Preventive b) Post emergence
   c) Leaf spot d) *Cercospora*

4) Leaf spot caused due to _____.
   a) *Odium* sp. b) *Cercospora* sp.
   c) both ‘a’ and ‘b’ d) none of above

5) What is the term for the use of a natural predator or parasitoid to control a pest?
   a) Genetic engineering b) Biological control
   c) Chemical control d) Mechanical control

6) Powdery mildew caused due to _____.
   a) *Odium* sp. b) *Cercospora* sp.
   c) both ‘a’ and ‘b’ d) none of above

7) What is the primary advantage of using biocontrol agents compared to chemical pesticides?
   a) They are more toxic to humans and pets
   b) They can quickly eradicate pest populations
   c) They are more specific to the target pest
   d) They are more resistant to pests

8) Rose flowers are used as an _____ purposes.
   a) Cash crop b) Medicinal
   c) Ornamental d) Food

B) Fill in the blanks. **04**

1) Brain horomon secreted by gland _____.
2) Use the Mancozeb to control _____ diseases.
3) *Fusarium* are caused _____
4) Chitin is made of _____.

Q.2 Answer the following. (Any Six) **12**

a) Define the parasitoid.
b) Enlist and write its causal organism on diseases of Guava.
c) Write the types of Fungicide.
d) Causal organism on wilt of Papaya.
e) Define Predator.
f) Write the chemical formula of BPU.
g) Enlist and write its causal organism on diseases of Gladiolus.
h) Write the types of Microbial Pathogen.

Q.3 Answer the following. (Any Three) **12**

a) Give the structure synthesis and application of BPU.
b) Common control method of fungal diseases.
c) Give Role of predator in pest controlling.
d) Leaf spot of Ber.

Q.4 Answer the following. (Any Two) **12**

a) Write the diseases of citrus explain any one.
b) Write any two examples of chitosan-based insecticide.
c) Write concept of juvenile and moulting hormones.

Q.5 Answer the following. (Any Two) **12**

a) Write the powdery mildew and leaf spot of Mango crop.
b) Write the diseases of Rose. Explain any one.
c) Write mode of action and method of application of Bacillus thurengenesis.

Seat No.	

Set P

M.Sc. (Agrochemicals and Pest Management) (Sem - IV) (New)
(NEP CBCS) Examination: March/April - 2026
Diseases of Crop Plants - II (MSC26407)

Day & Date: Tuesday, 21-04-2026 Max. Marks: 80
Time: 03:00 PM To 05:30 PM

Instructions: 1) Questions No.1 & 2 are compulsory.
2) Attempt any Three questions from Q No. 3 to 7.
3) Figures to the right indicate full marks.

Q.1 A) Choose correct alternative. (MCQ) **10**

1) Powdery mildew caused due to _____.
   a) Odium sp. b) Cercospora sp.
   c) both 'a' and 'b' d) none of above

2) _____ causes Anthracnose of Mango.
   a) Wilt
   b) Gleosporium ampelfagum
   c) Melanoconium fulgenium
   d) Collectotrichum gleosporioides

3) Leaf spot caused due to fungus _____.
   a) Fusarium oxysporium b) Alternaria alternata
   c) Alternaria solani d) none of above

4) Carbendazim 50% WP is _____ fungicide.
   a) Herbicide b) Broad spectrum contact
   c) Systemic d) black spot

5) Black rot of sweet potato caused due to fungus _____.
   a) Gleosporium ampelfagum b) Alternaria alternata
   c) Synchytrium endobioticum d) Ceratocystis fimbriata

6) Seed treatment is _____ method of disease control.
   a) Preventive b) Post
   c) Leaf spot d) *Cercospora*

7) _____is the economic product of Rubber tree.
   a) Wood b) Leaf extract
   c) Latex d) None of above

8) Gladiolus flowers are used as an _____ purposes.
   a) Ornamental b) medicinal
   c) Edible d) none of above

9) Early blight of potato caused due to fungus _____.
   a) Gleosporium ampelfagum b) Alternaria soalni
   c) Synchytrium endobioticum d) None of above

10) Powdery mildew of Grapes caused due to ____.
   a) Uncinula necator b) Cercospora sp.
   c) Both 'a' and 'b' d) None of above

B) Fill in the blanks. **06**

1) Use the Mancozeb to control _____ diseases.
2) Disease free planting material is _____ method of disease control.
3) Anthracnose are caused by _____.
4) *Albego Candida* coursed due to _____.
5) Seed and soil are _____ Infection.
6) Wilt are caused _____.

Q.2 Answer the following. **16**

a) Write symptoms and control on Wilt.
b) Comment on the Downy mildew.
c) Enlist and write its causal organism on diseases of Bamboo.
d) Common control method of fungal diseases.

Q.3 Answer the following. **16**

a) Write symptoms and control measure on Anthracnose and stem rot of papaya.
b) Explain the Downey mildew and White rust.

Q.4 Answer the following. **16**

a) Enlist the diseases of Grape write brief Anthracnose.
b) Write the diseases of Tomato explain any one.

Q.5 Answer the following. **16**

a) Write the powdery mildew and leaf spot of Mango crop.
b) Write the diseases of Pomegranate explain any one.

Q.6 Answer the following. **16**

a) Explain the general symptoms of fungal diseases on crop plant.
b) Explain brief black spot and Powdery mildew on Ber.

Q.7 Answer the following. **16**

a) Explain brief leaf spot and Powdery mildew on Gladiolus.
b) Explain brief Leaf spot and Powdery mildew on crop plant.

Seat No.	

Set P

M.Sc. (Agrochemicals and Pest Management) (Semester - IV) (CBCS)
Examination: March/April – 2026
Advances in Pest Control - II (MSC26402)

Day & Date: Thursday, 23-04-2026 Max. Marks: 80
Time: 03:00 PM To 06:00 PM

Instructions: 1) Q.No.1 and 2 are compulsory.
2) Attempt any three questions from Q.No.3 to Q.No.7
3) Figures to the right indicate full marks.

Q.1 A) Choose correct alternative. **10**

1) _____ is a type of parasitism in which a parasitoid attacks another parasitoid.
   a) super parasitism b) multiple parasitism
   c) hyper parasitism d) extreme parasitism

2) Light activated pesticide does the effect on pest by using _____.
   a) lamp b) water
   c) fertilizers d) sunlight

3) A _____ is a free-living organism it kills the prey, which is smaller than him.
   a) parasite b) predator
   c) parasitoid d) host

4) Biological control refers to use of natural enemies such as _____ for the management of insect pests.
   a) pathogens b) predator
   c) parasitoid d) All of these

5) *Trichogramma* is _____.
   a) Egg parasitoid b) Larval parasitoid
   c) Predator d) All the above

6) Somaclonal variation refers to variation observed in _____ derived progenies.
   a) Anther culture b) Root culture
   c) Tissue culture d) Callus culture

7) In genetic engineering, practically any gene from any organism can be _____ into a simple prokaryotic system.
   a) Isolated b) Sequenced
   c) Cloned d) All of the above

8) The full form of NPV is _____.
   a) Nuclear Polyhedrosis Virus
   b) Nuclear Polyhy Virus
   c) Nuclear Porous Virus
   d) None of the above

9) Alarm pheromone released by insect for _____ purpose.
   a) feeding b) protection
   c) sex d) shelter

10) 'Bt' insecticidal formulations act as _____.
   a) Contact poison b) Stomach poison
   c) Respiratory poison d) All the above

B) Fill in the blanks. **06**

1) IPM stands for _____.
2) _____ are the main source of active ingredient of neem.
3) Use of fungi, Bacteria and viruses against pest is the example of _____ control.
4) The full form of "Bt" _____.
5) Insect having complete life cycle has _____ stages.
6) Harmonal IGRs work by mimicking or inhibiting _____ hormone.

Q.2 Answer the following. **16**

a) Write a note on pheromones.
b) Explain in short attractants and repellants.
c) Genetical method of pest control
d) Nuclear Polyhedrosis Virus

Q.3 Answer the following. **16**

a) Describe the importance of biotechnological applications in pest management.
b) Describe in brief the methodology of genetic engineering to introduce gene into plant so as to produce transgenic plants.

Q.4 Answer the following. **16**

a) Define parasite & predators. Write a note role of parasitoid in insect pest management.
b) Define the biological control. Explain the different techniques used in biological control with suitable example.

Q.5 Answer the following. **16**

a) Describe the importance of IPM in pest management.
b) Describe in detail insect growth regulators

Q.6 Answer the following. **16**

a) Explain in detail use of Bacteria in pest management.

b) Write a note Light activated pesticides.

Q.7 Answer the following. **16**

a) What are the semiochemicals? Discus the importance of pheromones.

b) Define Somaclonal variability. Explain use of Fungus in pest control.