

Seat No.	
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**M.Sc. (AGPM) (Semester – I) (New) (CBCS) Examination, 2017
CHEMISTRY OF PESTICIDES AND THEIR FORMULATIONS – I**

Day & Date: Tuesday, 18-04-2017

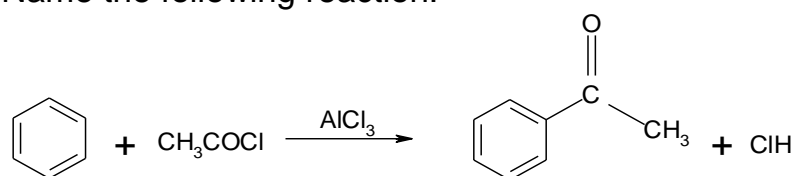
Max. Marks: 70

Time: 10.30 AM to 01.00 PM

- N.B. :** 1) All questions are **compulsory**.
2) All question carry equal marks.
3) Attempt any **two questions** from section – II and III.
4) Figures to the **right** indicate **full marks**.

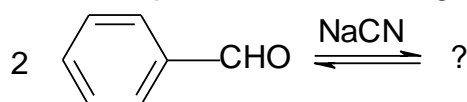
Q.1 A) Select most correct alternative of the following (each any carry 1 mark) 14

1) Name the following reaction.



- a) Perkins reaction b) SN²-reaction
c) Cannizzaro reaction d) Friedel-craft reaction
- 2) The reaction in which two atoms or groups are lost without replacement by other groups, these reactions are called as.
- a) Addition reaction b) Elimination reaction
c) Substitution reaction d) Rearrangement reaction

3) Predict two product of following reaction.



- a)
- b)
- c)
- d)

- 4) Aromatic aldehydes when treated with can alkali under goes self oxidation and reduction and forms products like acid and alcohol. This reaction is known as:
- a) Perkins reaction b) knoevenagel reaction
c) Reformatsky reaction d) Cannizzaro reaction
- 5) Methyl bromide is best
- a) Fumigant b) Herbicide c) lusecticide d) Rodenticide

SECTION – II

Attempt any two question from this section:

- | | | |
|-----|---|----|
| Q.2 | A) Discuss perkins reaction with mechanism. | 07 |
| | B) What are pest and pesticides? Describe systemic and non-systemic pesticides. | 07 |
| Q.3 | A) What are synthetic pyrethrins give synthesis of Permetherin and Deltametherin. | 07 |
| | B) Discuss Wagner-Meerwein rearrangement reaction with mechanism. | 07 |
| Q.4 | A) Give synthesis and uses of phorate and phosphamidon. | 07 |
| | B) Describe the following pesticide formulations.
1. Emulsifiable concentrate
2. Dust | 07 |

SECTION – III

Attempt any two question from this section:

- | | | |
|-----|--|----|
| Q.5 | A) Explain sulphonation reaction with mechanism. | 05 |
| | B) Describe the methods of extraction of Neem plant. | 05 |
| | C) Give synthesis of Chlorophyriphos | 04 |
| Q.6 | A) Describe the use of insect attractants, chemosterilants and repellents in plant protection. | 05 |
| | B) Give synthesis and uses of Monocrotophos. | 05 |
| | C) Discuss spray formulations. | 04 |
| Q.7 | A) Discuss SN ¹ - reaction with mechanism and energy profile diagram. | 05 |
| | B) Write note on rodenticides. | 05 |
| | C) Describe the use of Neem plant as pesticides. | 04 |

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M.sc I (Semester –I) (New)(CBCS)Examination,2017
AGROCHEMICALS & PEST MANAGEMENT
SOIL SCIENCE, FERTILIZERS, MICRONUTRIENTS AND PLANT GROWTH
REGULATORS

Day & Date: Thursday, 20-04-2017

Max. Marks: 70

Time: 10.30 AM to 01.00 PM

- N.B. :** 1) All sections are **Compulsory** .
 2) All questions carry equal Marks.
 3) Figures to the **right** indicate **full** marks.
 4) **Attempt Any Two** questions each from **section II & section III**

Q.1 Choose Correct option given below: 14

- 1) _____ is an example of concentrated organic manure.
 a) Oil cake b) FYM c) Bone meal d) Sewage
- 2) _____ Cause the fire hazard.
 a) Sodium nitrate b) Calcium cyanide
 c) Superphosphate d) Rock phosphate
- 3) Which of the following is not micronutrient?
 a) K b) Zn c) Mo d) Fe
- 4) Gibberellins acid is found in _____.
 a) Coconut water b) Avena sativa
 c) Raphanus sativa d) Gibberella fujikuroi
- 5) Cow pea (vigna Catjava) is an example of _____.
 a) Guano b) Green manure
 c) Bucky organic manure d) Councetrated manure.
- 6) $[H^+]$ ion coucentration is increases in soil, causes _____.
 a) Salinity b) Active acidity
 c) Active alkalinity d) Active basicity
- 7) If aluminium oxide are abundance in lateritic soil is called _____.
 a) Red soil b) Bauxite
 c) Khader d) Basalt
- 8) PH=5, indicates that the solution reaction is _____.
 a) Basic b) Neutral c) Acidic d) Alkaline

- 9) Coconut milk contains the growth regulators.
a) Cytokinin b) GA c) ABA d) IBA
- 10) Root initiation is the major role of _____.
a) IBA b) ABA c) 2-4-D d) 2-4-5-ST
- 11) Nitrogen percentage in Ammonium nitrate is _____.
a) 21% b) 24% c) 26% d) 18%
- 12) Biogas is composed of _____.
a) Butane & co₂ b) Methane & co₂
c) Ethane & co₂ d) Acetylene & co₂
- 13) _____ is obtained from the waste produce of slaughter house.
a) Guano meal b) Oil cake
c) Bone meal d) Fish meal

Section II (Any Two)

- Q.2** **A)** What are fertilizers? Describe the manufacture of Ammonium Molybdate. **07**
- B)** Write in brief about super Compost. **07**
- Q.3** **A)** Describe the Structure of soil. **07**
- B)** Describe the Chemical properties of soil. **07**
- Q.4** **A)** What are the phytohormones ? Describe the practical applications of Auxin. **07**
- B)** Write in brief about Green manures **07**
- Q.5** **A)** What are the deficiency Symptoms of Fe & Mg. **05**
 B) Describe the role of nqu & nqo. **05**
 C) Write a note on Liquid Manure. **04**
- Q.6** **A)** Write a note on 'NPK' fertilizers. **05**
 B) Bluegreen Algae (BGA) as a bio fertilizers. **05**
 C) Bangalore methods of Composting. **04**
- Q.7** **A)** Write in brief Avena Curvature Test **05**
 B) What are the plant growth hormones? **05**
 C) What are the micronutrients ? **04**

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**M.Sc. Agrochemicals and Pest Management (Semester –I)
(New) (CBCS) Examination, 2017
INTRODUCTORY AND INDUSTRIAL ENTOMOLOGY**

Day & Date: Saturday, 22-04-2017

Max. Marks: 70

Time: 10.30 AM to 01.00 PM

- N.B. :** 1) All sections are **Compulsory** .
2) All questions carry **equal** Marks.
3) **Solve any two Questions from section-II**
4) **Solve any two Questions from section – III**

Q.1 Choose the Correct answer from options given below. 14

- 1) In life cycle of holometabolous insect _____ stages occurs.
a) Four b) Five c) Three d) One
- 2) Scutellum is present in bug _____.
a) Flies b) bug c) Moth d) Beetle
- 3) Monolliform antennae is found in _____.
a) Dragonfly b) Termite
c) Cockroach d) None of the above
- 4) Sponging type of mouth parts found in _____.
a) Female mosquito b) Till hawk moth
c) House fly d) Gall fly
- 5) Raptorial type of leg is found in _____.
a) Groundnut leaf worm b) Cockroach
c) Cotton ball worm d) Praying mantis
- 6) The scientific name of Red hairy caterpillar is _____.
a) *Helicoverpa aemigera* b) *Amasacta moorei*
c) *Odontotermus obesus* d) None of the above
- 7) All moth and butterflies are included in _____ order.
a) Orthoptera b) Coleoptera
c) Lepidoptera d) Dipteral
- 8) Hindgut of insect is called _____.
a) Stomodeum b) *Proctodeum*
c) Mesenteron d) None of these
- 9) In winter season some lepidopteran pest goes to the _____.
a) Hibernation b) Aestivation
c) Parasitic d) Saprophytic

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**M.Sc. (AGPM) (Semester –I)) (Old) (CBCS), Examination 2017
CHEMISTRY OF PESTICIDES AND THEIR FORMULATIONS-I**

Day & Date: Tuesday, 18-04-2017

Max. Marks: 70

Time: 10.30 AM to 01.00 PM

- N.B. :**
- 1) *All Questions carry equal marks.*
 - 2) *All sections are Compulsory.*
 - 3) *Solve any two Questions from Section-II and III.*
 - 4) *Figures to the right indicate full marks.*

Section- I

Q.1 Select most correct alternative of the following each carry one mark. 14

- 1) Sulphonation of benzene is an example of
 - a) Nucleophilic substitution
 - b) Electrophilic substitution
 - c) Nucleophilic addition
 - d) Electrophilic addition
- 2) Name the following reaction

$$\text{C}_6\text{H}_5\text{CHO} + (\text{CH}_3\text{CO})_2\text{O} \xrightarrow[180^\circ\text{C}]{\text{CH}_3\text{COONa}} \text{C}_6\text{H}_5 - \text{CH}=\text{CH}-\text{COOH} + \text{CH}_3\text{COOH}$$
 - a) Reformatsky reaction
 - b) Mannich reaction
 - c) Perkins reaction
 - d) Cannizzaro's reaction
- 3) Aromatic aldehydes when condensed in presence sodium or potassium cyanide and ethanol gives α - hydroxy ketone. This reaction is known as.
 - a) Benzoin condensation
 - b) Perkin's condensation
 - c) Aldol condensation
 - d) Stobbe condensation
- 4) Which of the following alkyl halide under goes SN^1 – reaction?
 - a) Methyl bromide
 - b) Isopropyl bromide
 - c) n-butyl bromide
 - d) Tertiary butyl bromide
- 5) Which of the following is synthetic pyrethroid?
 - a) Cypermethrin
 - b) Jasmolin
 - c) Cyanrin
 - d) Pyrethrin
- 6) Which of the is insect repellent.
 - a) Dimethyl benzamide
 - b) N-N diethyl aniline
 - c) N-N diethyl benzamide
 - d) None of these

- Q.4** a) Give synthesis uses of Malathion and Dimethoate **07**
b) Discuss pinacol-pinacolone rearrangement reaction with mechanism. **07**

Section- III

Attempt any two question from this Section

- Q.5** a) Describe the recent insect attractants and repellents **05**
b) Give synthesis and uses of Fipronil **05**
c) Discuss E₂- Elimination reaction with mechanism. **04**
- Q.6** a) Discuss Cannizzaro's reaction with mechanism. **05**
b) Describe the use of Neem extract for pest control. **05**
c) Describe the formulation of Aerosols **04**
- Q.7** a) Discuss SN¹ - reaction with mechanism. **05**
b) Give synthesis and use of Deltamethrin **05**
c) Give synthesis and use of Quinalphos. **04**

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**Agrochemicals & Pest Management (Semester – II) (New) (CBCS)
Examination, 2017**

CHEMISTRY OF PESTICIDES AND THEIR FORMULATIONS – II

Day & Date: Wednesday, 19-04-2017

Max. Marks: 70

Time: 10.30 AM to 01.00 PM

- N.B. :** 1). All sections are **Compulsory**
 2) Attempt any two questions from sec II and sec III
 3) Figures to the **right** indicate **full** marks.
 4) All questions carry equal marks.

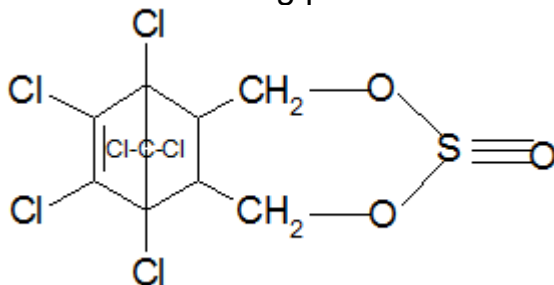
(Section – I)

Q.1 A) Choose the correct alternative given in the bracket. 14

1) Butachlor is used for

- a) Growth promoter b) Growth retardant
 c) Flower inictor d) Weed control

2) Name the following pesticide.



- a) Endosulphan b) Dicofol
 c) Ethophan d) Metaoxychlor

3) Reaction between 2,4 –dichloro phenol and sodium salt of monochloro acetic acid forms

- a) BHC b) DDT c) Butachlor d) 2,4-D

4) Which of the following pesticide is used as seed disinfectant

- a) Endosulphan b) DCNB
 c) Methoxychlor d) Endrin

5) Chloronil is obtained by oxidation of

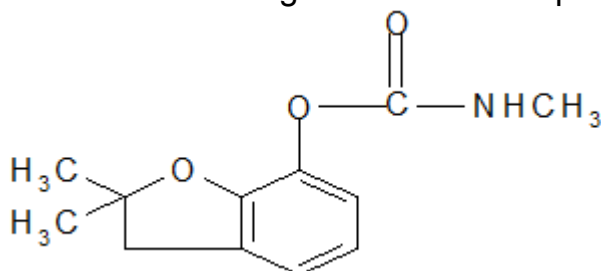
- a) penta chloro phenol b) 2,4,6 tribromoaniline
 c) 2,4,6 trinitro phenol d) 2,4-dichloro phenol

6) Reaction between Catechol, Isopychloride and methyl isocyanate in presence of base forms.

- a) Cypermetherin b) Baygon
 c) Aldicarb d) Carnaryl

- 7) Zinc salt N-N- dimethyl dithiocarbamate is called as
 a) Ziram
 b) Zineb
 c) Maneb
 d) None of these

- 8) Name the following Carbamate compound



- a) Aldicarb
 b) Carbofuran
 c) Bendiocarb
 d) Propoxure

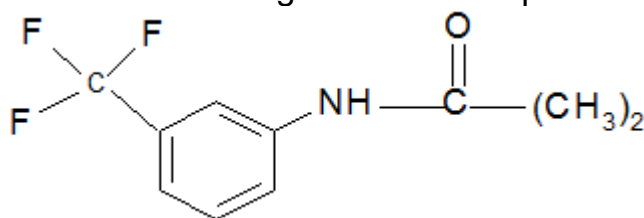
- 9) Sulphur is used in agriculture in the form of
 a) Smoke
 b) Aqueous solution
 c) Dust
 d) Emulsive concentrate

- 10) Diels – Alder reaction is involved in the synthesis of
 a) Propanil
 b) Phthalan
 c) Perchlor
 d) Captan

- 11) Bordeaux mixture is a mixture of
 a) CuSO_4 and $\text{Ca}(\text{OH})_2$
 b) $\text{CuSO}_4 + \text{Na}_2\text{CO}_3$
 c) CuSO_4 and $\text{Fe}(\text{OH})_3$
 d) $\text{CuSO}_4 + \text{NH}_4\text{OH}$

- 12) Manuron is derivative of urea which is produced by reaction between p-chloro phenyl isocyanate with.
 a) Methyl amine
 b) Dimethyl amine
 c) Ethylene diamine
 d) N-N-dietyl aniline

- 13) Name the following herbicide compound.



- a) Tenuron
 b) Manuron
 c) Fluro methron
 d) Methiuron

- 14) Captan is synthesized by reacting perchlor with
 a) Phthalimide
 b) Succinamide
 c) Acetamide
 d) Tetrahydro phthalimide

(Section – II)**Attempt any questions from this section:**

- Q.2** 1) What is oxime carbamate? Give synthesis of ziram and zineb **07**
2) Discuss the role of nito compounds as pesticides **07**
- Q.3** 1) Give synthesis and properties of Bagoan and methomyl **07**
2) Give synthesis and uses of Trifluralin and Nitralin **07**
- Q.4** 1) Describe the role of zinc oxide and zinc phosphate as pest control **07**
2) Give synthesis and uses of captan and propanil **07**

(Section – III)**Solve any two question from this section:**

- Q.5** 1) Describe the role of copper compound and sodium chlorate as herbicide **05**
2) Give synthesis and uses of Butachlor **05**
3) Give synthesis of paraquat **04**
- Q.6** 1) Discuss the role of azo and hydrazine compounds in pest control **05**
2) Give synthesis and uses of 2,4-D **05**
3) Discuss how computer is used in pesticide analysis **04**
- Q.7** 1) Give synthesis of Bendiocarb **05**
2) Give synthesis and properties of Manuron. **05**
3) Write note on Mercaptans and sulphide. **04**

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**M.Sc.(A.G.P.M) (Semester –II)(New) (C.B.C.S) Examination, 2017
ANALYTICAL TECHNIQUES FOR AGROCHEMICALS**

Day & Date: Friday, 21-04-2017

Max. Marks: 70

Time:10:30 AM to 01.00 PM

- N.B. :**
- 1) **All Sections are compulsory**
 - 2) **Attempt Two questions from Section II**
 - 3) **Attempt any Two questions from Section III.**
 - 4) **All questions carry equal marks.**

SECTION – I

Q.1 Choose the most correct answer (one mark each):

14

- 1) Quinhydrone is _____ mixture of quinine & hydroquinone
 a) 1:2 b) 1:1 c) 2:3 d) 3:5
- 2) Which is the first step of stripping analysis?
 a) Concentration b) Stripping
 c) Oxidation d) Dissolution
- 3) The titrations in which end points are determined by emf measurements are called _____ titrations.
 a) Conductometric b) Colorimetric
 c) Potentiometric d) P^H metric
- 4) In a conductivity cell _____ plates are used as a electrode.
 a) Copper b) Aluminium c) Zinc d) Platinum
- 5) In potentiometric titration the potential of indicator electrode depends on the _____ of ions present in the solution.
 a) Pressure b) Temperature
 c) Volume d) Concentration
- 6) Silica gel is _____ phase in TLC
 a) Stationary b) Mobile c) Reverse d) Normal
- 7) All chromatographic techniques are based on the principle of _____
 a) Electrolysis b) Separation
 c) Salvation d) Precipitation
- 8) In paper Chromatographt, the R_f value is given by the equation _____
 a) Distance travelled by solute divided by distance travelled by solvent
 b) Distance travelled by solvent divided by distance travelled by solute
 c) Distance moved by component divided by distance moved by solute
 d) Distance moved by the substance divided by distance moved by solute

- 9) EDTA is used as _____
 a) Titrant b) Titrand c) Indicator d) None of these
- 10) Primary standard solution in titrimetric analysis is known as
 a) Secondary standard solution
 b) Dilute solution
 c) Concentrated solution
 d) Solution of exactly known concentration
- 11) Which of the following is used as the primary standard in redox titration?
 a) KMnO_4 b) $\text{K}_2\text{Cr}_2\text{O}_7$ c) CaCO_3 d) HCl
- 12) Flame photometry is also known as _____ spectroscopy
 a) Flame emission b) Molecular
 c) Atomic d) None of these
- 13) In simple flame photometer, the monochromator is _____
 a) Prism b) Grating c) Slit d) All of these
- 14) In photomultiplier tubes _____ is present.
 a) Photocathode b) Photoanode
 c) Photon d) None of these

Section II

- Q.2** a) Describe principle, procedure and application of column chromatography. **07**
 b) What are acid-base indicators? Discuss the neutralization curves for strong acid and weak base titration. **07**
- Q.3** a) What is precipitation titration? Describe experimental procedure for determination of halide ion in solution by precipitation titration. **07**
 b) Write construction and working of glass electrode.
- Q.4** a) Describe principle, procedure and application of thin layer chromatography. **07**
 b) Write principle and instrumentation of atomic absorption spectroscopy. **07**

Section III

- Q.5** a) Explain metallochromic indicators in brief. **05**
 b) Describe potentiometric precipitation titration. **05**
 c) Write application of polarimeter in pesticide analysis. **04**
- Q.6** a) Describe the process of solvent extraction in detail. **05**
 b) Write principle and methodology of stripping voltametry. **05**
 c) Write note on specific and equivalent conductance. **04**
- Q.7** a) Write applications of Nephelometer and Turbidimeter. **05**
 b) Write application of flame photometer in qualitative and quantitative analysis **05**
 c) Write note on gravimetric estimation of SO_4^- **04**

Seat No.	
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**M.Sc. (A.G.P.M.) (Semester –II)(New) (CBCS) Examination, 2017
ECONOMIC ENTOMOLOGY**

Day & Date: Monday, 24-04-2017

Max. Marks: 70

Time: 10.30 AM to 01.00 PM

- N.B. :** 1) **All** Question are **Compulsory**.
 2) **All** Question carry **equal** marks.
 3) Solve **any two** Questions from **Section-II**
 4) Solve **any two** Questions from **Section-III**

Section- I

Q.1 Choose correct answer from options given below. 14

- 1) Dengue causes due to _____ mosquito
 - a) Anopheles
 - b) Culex
 - c) Aedes
 - d) All of the above
- 2) Scientific name of Bed bug is _____.
 - a) Periplaneta Americana
 - b) Holotrichia consagunia
 - c) Cimex lectularius
 - d) Musca domestica
- 3) _____ is sucking pest.
 - a) Thrips
 - b) Gram pod borer
 - c) White grub
 - d) Grasshopper
- 4) Cockroach belongs to family _____.
 - a) Blattidae
 - b) Acrididae
 - c) Cimicidae
 - d) Gryllidae
- 5) _____ vertebrate pest having characteristic of release a spine towards the enemy.
 - a) Monkeys
 - b) House sparrow
 - c) Porcupine
 - d) Grasshopper
- 6) House fly has _____ mouth parts.
 - a) Chewing
 - b) Biting
 - c) Sponging
 - d) Siphoning
- 7) White fly belongs to the family _____.
 - a) Aleyrodoidea
 - b) Bupresidae
 - c) Cimicidae
 - d) Saprozoic
- 8) Chemicals used to control insects are known as _____.
 - a) Pesticides
 - b) Insecticides
 - c) Rodenticides
 - d) Herbicides

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M.sc (AGPM) I (Semester –III) (Old) (CGPA) Examination, 2017
AGROCHEMICALS AND PEST MANAGEMENT
Pesticide Residues and Toxicology

Day & Date: Tuesday, 18-04-2017

Max. Marks: 70

Time: 02.30 PM to 05.00 PM

- N.B. :**
- 1) **All Question are Compulsory.**
 - 2) **All Question carry equal marks.**
 - 3) **Solve any two Questions from Section-II**
 - 4) **Solve any two Questions from Section-III**
 - 5) **Draw neat labeled diagram wherever necessary**
 - 6) **Figures to the right indicate full marks**

Section- I

Q.1 Choose correct answer from options given below. 14

- 1) _____ refers to the accumulation of pesticides in the tissues of plants and animals many thousand times greater than is concentration in surrounding medium.
 - a) Biodegradation
 - b) Bioconcentration
 - c) Biomagnifications
 - d) Bioaccumulation
- 2) Toxicokinetics of toxic substance involves _____.
 - a) Absorption
 - b) Distribution
 - c) Transformation
 - d) All the above
- 3) _____ means the repeated exposure of organisms to the sublethal concentrations of the toxicants for longer duration.
 - a) Chronic exposure
 - b) Acute exposure
 - c) Short term exposure
 - d) None of these
- 4) Glutathione is involved in _____ reactions of biotransformation
 - a) Phase-I
 - b) Phase-II
 - c) Oxidation
 - d) Reduction
- 5) In _____ pesticides are transported through plasma membrane without use of cellular energy.
 - a) Passive transport
 - b) Active transport
 - c) Both a and b
 - d) None of the above

- 6) In _____ reaction glucouronide formation takes place.
 a) Enzymatic conjugation b) Microsomal oxidation
 c) Reduction d) None of these
- 7) _____ forms complex with receptor.
 a) Agonist b) Antagonist
 c) Xenobiotics d) Poison
- 8) Minimata disease was first recorded in _____.
 a) India b) China c) Shrilanka d) Japan
- 9) _____ is the site of cytochrome linked monooxygenases
 a) Mitochondrion b) Chloroplast
 c) Cytosol d) Smooth endoplasmic reticulum
- 10) Fungicides kill the _____.
 a) Insects b) Bacteria
 c) Fungi d) All the above
- 11) Silicon inhalation causes _____ in human being.
 a) Asbestosis b) Silicoponia
 c) Silicosis d) None of these
- 12) Organo-phosphorus pesticides affect nervous system by inhibition of _____ enzyme.
 a) Acetylcholine b) Aspartate amino transferase
 c) Succinate dehydrogenase d) All of these
- 13) Albert firstly studied the mechanism of _____ of Xenobiotics.
 a) Biotransformation b) Bioaccumulation
 c) Bioconcentration d) All of these

Section- II

- Q.2 A) What are pesticides? Discuss about the entry of pesticides in target organism. 07**
- B) What is teratogenicity? Explain teratogenic effects of different teratogens 07**
- Q.3 A) Define poison and comment on the symptoms of following poisons. 07**
 (1) Arsenic (2) Opium
- B) Discuss the effects of pesticide residues on soil micro - organism. 07**

Q.4	A) Explain the effects of pesticides on human health.	07
	B) Comment on the 'Entry of pesticides in Environment'	07
Section- III		
Q.5	A) What is poison? Write the classification of poison and comment on the symptoms of any poison you have studied.	05
	B) Discuss the protocol for analysis of pesticide residues in fruits by gas chromatography	05
	C) What is receptor? Explain any one type of mechanism of action of receptor.	04
Q.6	A) What is mutation? Write short note on mutagens	05
	B) What are organic- chlorine pesticides? Discuss in brief their mechanism of action.	05
	C) Write in brief about 'Classification of poisons'.	04
Q.7	A) Explain in detail phenomenon of biomagnification with suitable examples	05
	B) What is teratogenecity? Explain teratogenic effects of any two teratogens you have studied	05
	C) What are microsomal oxidases? Explain in brief the role of microsomal oxidases in transformation of toxicants.	04

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**M.Sc. (Agrochemical & Pest Management) (Semester – III)
(Old) (CGPA) Examination, 2017
ADVANCES IN PEST CONTROL – I**

Day & Date: Thursday, 20-04-2017

Max. Marks: 70

Time: 02.30 PM to 05.00 PM

- N.B. :**
- 1) **All** Question are **Compulsory**.
 - 2) **All** Question carry equal marks.
 - 3) Solve **any two** Questions from **Section-II**.
 - 4) Solve any two Questions from **Section-III**.

Section- I

Q.1 Choose correct answer from options given below. 14

- 1) *Menochilus sexmaculatus* is _____.
 - a) Egg parasitoid
 - b) Larval parasitoid
 - c) Predator
 - d) All the above
- 2) Pesticides are used for _____.
 - a) To control weeds
 - b) To kill pest
 - c) Instead of fertilizers
 - d) All the above
- 3) Banding on tree is _____ method of
 - a) Chemical
 - b) Mechanical
 - c) Legal
 - d) None of above
- 4) _____ is the natural enemy of sugarcane wooly aphid.
 - a) Dipha
 - b) Trichogramma
 - c) Nymph
 - d) All the above
- 5) 'Bt' insecticidal formulation act as _____.
 - a) Contact poison
 - b) Stomach poison
 - c) Respiratory poison
 - d) All the above
- 6) Chemicals which prevent insect damage to plants or animals by rendering them unattractive _____.
 - a) Repellents
 - b) Sterilants
 - c) Attractants
 - d) All the above
- 7) Knapsack sprayer is the type of _____ sprayer.
 - a) Hand operated
 - b) Compression
 - c) Power operated
 - d) All the above

- 8) Azadiractin is _____ originated insecticide.
 a) Neem b) Mulberry c) Wheat d) All the above
- 9) Chemicals that cause insect to make oriented movements towards their source are called _____
 a) Repellents b) Sterilants
 c) Attractants d) All the above
- 10) In house fly resistance occurred to DDT due to_____.
 a) Recessive gene Kdr b) Dominant gene Kdr
 c) Both of the above d) All of the above
- 11) *Holotrichia consanguinea* is _____ pest.
 a) Polyphagous b) Oligophagous
 c) Monophagous d) None of the above
- 12) Crop rotation is impimented in _____ programme.
 a) Mechanical b) Chemical
 c) Cultural d) None of the above
- 13) Tin banding of Coconut plants controls _____.
 a) Rats b) Miters
 c) Dragon fly d) Aphid
- 14) Iron hook is used to control _____.
 a) White grub b) Rhinoceros beetle
 c) Grasshopper d) Termite

Section- II

- Q.2** **A)** Explain the factors affecting on Host Plant Resistance. **07**
 B) Give an account of Attractants in pest control programme **07**
 With suitable example.
- Q.3** **A)** Enlist various methods of pest control. Explain the cultural **07**
 Method of pest control with suitable example.
 B) Define host plant resistance. Explain mechanism of **07**
 resistance in plants.
- Q.4** **A)** Enlist various methods of pest control. Explain the **07**
 Mechanical Methods of pest control with suitable example.
 B) Enlist the plant protection appliances. Explain hand atomizer **07**
 sprayer

Section- III

- Q.5** **A)** Repellents and their role in pest control. **05**
 B) Use of Neem in plant protection. **05**
 C) Write a note on Insecticides. **04**
- Q.6** **A)** Management of stored agricultural commodities. **05**
 B) Breeding for insect resistance. **05**
 C) Types of nozzles. **04**

Q.7	A) Plant origin insecticides.	05
	B) Insecticide resistance.	05
	C) Chemosterilents.	04

Seat No.	
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**M.Sc.(A.G.P.M) (Semester – III)(Old) (CGPA) Examination, 2017
ANALYSIS OF AGROCHEMICALS**

Day & Date: Saturday, 22-04-2017

Max. Marks:70

Time: 02.30 PM to 05.00 PM

- Instructions:** 1) *All questions are compulsory.*
 2) *Attempt any Two questions from Section II*
 3) *Attempt any Two questions from Section III*
 4) *All questions carry equal marks*

Section I

Q.1 Choose the most correct answer (one mark each): **14**

- 1) How many fundamental vibrations can be observed in IR spectrum of carbon dioxide molecule?
 a) 5 b) 4 c) 3 d) 2
- 2) Finger print region is related to which type of spectroscopy?
 a) IR b) UV c) Mass d) NMR
- 3) In case of saturated ketones the most intense band due to π - π^* transitions is around
 a) 175 nm b) 150 nm c) 190nm d) 110nm
- 4) Which of the following is not used as detector in the UV-Visible spectrometer?
 a) Photocell b) Barrier layer cell
 c) Photomultiplier tube d) Scintillation counter
- 5) Scissoring, rocking, wagging and twisting are _____ type of vibrations
 a) Symmetric b) Asymmetric
 c) Bending d) None of these
- 6) Which types of radiations are observed in NMR spectroscopy?
 a) IR b) Visible c) Microwave d) Radiofrequency
- 7) The most intense peak in the mass spectrum is called
 a) Base line b) Base peak c) Ion peak d) None of these
- 8) How many signals can be observed in PMR of ethyl alcohol molecule?
 a) 1 b) 2 c) 3 d) 4
- 9) Light released as a result of chemical reactions is called _____
 a) Fluorescence b) Chemiluminescence

c) Phosphorescence d) None of these

10) The radioisotopes have

- a) Same mass number and same atomic number
- b) Same mass number and different atomic number
- c) Different mass number and different atomic number
- d) Different mass number and same atomic number

11) Which of the following vitamins is polarographically active?

- a) Thiamine b) Ascorbic acid c) Riboflavin d) All

12) Gas chromatography is used for _____ analysis.

- a) Qualitative b) Quantitative
- c) Qualitative and quantitative d) None of these

13) Gas chromatography is also known as _____ type of chromatography.

- a) Adsorption b) Partition
- c) Absorption d) Both a and b

14) HPLC is used in _____

- a) Pharmaceutical chemistry b) Biochemical analysis
- c) Chemical analysis d) All of these

Section II

- | | | |
|------------|--|----------|
| Q.2 | a) Explain principle and instrumentation of HPLC | 7 |
| | b) Describe neutron activation analysis and its applications | 7 |
| | | |
| Q.3 | a) Describe voltage current curves and analysis of polarogram. | 7 |
| | b) Explain functional group region of IR spectroscopy | 7 |
| | | |
| Q.4 | a) Describe instrumentation and applications of UV spectroscopy | 7 |
| | b) Draw schematic diagram of NMR spectrometer and describe shielding and deshielding effect | 7 |

Section III

- | | | |
|------------|---|----------|
| Q.5 | a) Describe analysis of ammonia | 5 |
| | b) Draw schematic diagram of mass spectrometer | 5 |
| | c) Write a note on finger print region. | 4 |
| | | |
| Q.6 | a) Write applications of gas chromatography | 5 |
| | b) Write applications of fluorescence in agriculture | 5 |
| | c) Write note on health hazards in radioactivity | 4 |
| | | |
| Q.7 | a) Explain advantages of TMS as a reference in NMR. | 5 |
| | b) Describe GC-MS technique. | 5 |
| | c) Write note on analysis of CO. | 5 |

- a) Tikka disease of groundnut b) Powdery mildew of mustard
c) Smut of Jowar d) Powdery mildew of grapes
- 9) In some other countries, Brown rust of wheat produces spermogonia and aecia on _____.
a) *Thalictrum* sp. b) *Oxalis corniculata*
c) Barberry d) Brinjal
- 10) The causal organism of 'Berseem stem rot' is _____.
a) *Macrophomia* sp. b) *Sclerotium* sp.
c) *Bremia* sp. d) *Fusarium* sp.
- 11) Viral diseases of crops mostly transmitted by _____.
a) White grubs b) Aphids
c) Fruit flies d) None of the above
- 12) Polymorphism and caste system is the key features of _____.
a) Blister beetle b) Stem borer
c) Termite d) None of the above
- 13) The casual organism of 'Powdery Mildew in Mustard' is _____.
a) *Erysiphe polygoni* b) *Erysiphe cichoracearum*
c) *Erysiphe graminis* d) *Erysiphe cruciferarum*
- 14) Use of light traps for controlling of pest in the field is _____ methos.
a) Cultural method b) Mechanical method
c) Physical method d) Legal method

Section- II

- Q.2** **A)** What is pest? Comment on biology and control of any one forage crop pests that you have studied. **07**
 B) Describe symptoms, nature of damage and management of downey mildew of Bajara. **07**
- Q.3** **A)** What do you mean forage crops? Highlight diseases of any one forage crops that you have studied. **07**
 B) Describe the biology, life cycle, nature of damage and management of stem borer of Maize. **07**
- Q.4** **A)** Describe the biology, life cycle, nature of damage and control of brown plant hopper. **07**
 B) Explain disease. Highlight symptom, nature of damage and management of wilt of cow pea. **07**

Section- III

- Q.5** **A)** Maize blight: Morphology and control. **05**
 B) Tikka disease of groundnut: Symptoms and management. **05**
 C) Powdery mildew of gram **04**

Q.6	A) Different tools of Pest management	05
	B) Life cycle of Nematodes	05
	C) White rust mustard	04
Q.7	A) Grassy Shoot Disease-Symptoms and control.	05
	B) Diseases of castor and their control measures.	05
	C) Rust of safflower	04

Seat No.	
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**M.Sc. (Agrochemical and Pest Management) (Semester –III)
(CBCS) (New) Examination,2017
ADVANCES IN PEST CONTROL-I**

Day & Date: Thursday, 20-04-2017

Max. Marks: 70

Time: 02.30 PM to 05.00 PM

- N.B. :**
- 1) **All Questions are Compulsory.**
 - 2) **All Question carry equal marks.**
 - 3) **Solve any two Questions from Section-II.**
 - 4) **Solve any two Questions from Section-III.**

Section- I

Q.1 Choose correct answer from multiple choices given below. 14

- 1) Which is true DDT? It is _____
 - a) Not a pollutant
 - b) An antibiotic
 - c) An antiseptic agent
 - d) A non-degradable pollutant
- 2) Which is major component of Bordeaux Mixture?
 - a) Copper sulphate
 - b) Sodium chloride
 - c) Calcium chloride
 - d) Magnesium sulphate
- 3) Which one is correctly matched?
 - a) Carbamates – malathion
 - b) Organophosphates –carbofuran
 - c) Carbamates –malathion
 - d) Organochlotide –endosulphan
- 4) The most quickly available source of nitrogen to plants are
 - a) Amide fertilizers
 - b) Ammonia fertilizers
 - c) Nitrate fertilizers
 - d) Ammonia nitrate fertilizers
- 5) IPM stands for _____.
 - a) Integrated pest manufacture
 - b) Integrated plant management
 - c) Integrated plant management
 - d) Integrated pest management
- 6) Insecticides generally attack
 - a) Respiratory system
 - b) Nervous system
 - c) Muscular system
 - d) Circulatory system
- 7) Pesticides designed to kill birds are called _____.
 - a) Herbicide
 - b) Aviacide
 - c) Birdicide
 - d) Nematicide
- 8) The use of legislative restriction to control pests is called _____.
 - a) Plant law
 - b) Plant quarantine
 - c) Plant protection
 - d) Plant enclosure
- 9) The three basic elements that most fertilizers contain and are displayed on the bag are _____.
 - a) Nitrogen, phosphorous, potassium
 - b) Iron, sulfur, zink

Seat No.	
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**M.Sc.(A.G.P.M) (Semester –III) Examination,(New CBCS) 2017
ANALYSIS OF AGROCHEMICALS**

Day & Date: Saturday, 22-04-2017

Max. Marks: 70

Time: 02.30 PM to 05.00 PM

- N.B. :** 1) *All Sections are **Compulsory**.*
 2) *Attempt any **Two** questions from Section-II*
 3) *Attempt any **Two** questions from Section-III*
 4) *All questions carry **equal** marks.*

Section- I

Q.1 Choose the most correct answer (one mark each): **14**

- 1) In thin layer chromatography _____ is used as solid support
 - a) Silica gel
 - b) Alumina
 - c) Kieselghur
 - d) All of these

- 2) The main components of HPLC are _____
 - a) High pressure pump
 - b) Injector system
 - c) Detector
 - d) All of these

- 3) The basic unit of radioactivity is _____
 - a) Dynes
 - b) Curie
 - c) Debye
 - d) Newton

- 4) Which of the following is not used as detector in HPLC?
 - a) Scintillation counter
 - b) Fluorescence detector
 - c) UV
 - d) Refractometer

- 5) Which of the following solution is added as maximum suppressor in polarographic experiment?
 - a) Soap solution
 - b) Glucose solution
 - c) KCl solution
 - d) Gelatin solution

- 6) The current due to supporting electrolyte KCl is called _____
 - a) Residual current
 - b) Diffusion current
 - c) Migration current
 - d) Direct current

- 7) _____ transition is more energetic.
 - a) $\sigma - \sigma^*$
 - b) n-pi
 - c) pi-pi*
 - d) n- σ^*

- 8) In paper chromatography water adsorbed on paper acts as _____
 - a) Mobile phase
 - b) Stationary phase
 - c) Indicator
 - d) All of these

- 9) _____ spectroscopy gives information regarding bonding present in the molecule.
 a) IR b) UV c) NMR d) Mass
- 10) The carbonyl stretching frequency in ketone is _____ cm^{-1}
 a) 1720 b) 1750 c) 1500 d) 2500
- 11) The R_f value depends upon
 a) Solvent system b) Temperature of environment
 c) Size of vessel d) All of these
- 12) $M+2$ peak in mass spectra is observed due to _____
 a) H b) Br c) O d) N
- 13) Methyl protons in case of impure ethanol gives the splitted peak having _____ multiplicity
 a) Singlet b) Doublet c) Triplet d) Quartet
- 14) The R_f value is always _____
 a) One b) Less than one c) Two d) Three

Section- II

- Q.2** A) Describe the H_2S monitoring in air sample. **07**
 B) Write applications of radioisotopes in agriculture. **07**
- Q.3** A) Describe principle, development and applications of paper Chromatography. **07**
 B) Describe instrumentation of IR spectroscopy. **07**
- Q.4** A) Draw a schematic diagram for experimental setup of polarography and discuss its principle and working. **07**
 B) Draw a schematic diagram of mass spectrometer and describe its Working. **07**

Section- III

- Q.5** A) Explain applications of fluorescence measurement in Pesticide residue analysis. **05**
 B) Describe different types of electronic transitions in UV Spectroscopy. **05**
 C) Write note on Mc-Lafferty rearrangement. **04**
- Q.6** A) Explain with suitable example shielding and deshielding effect. **05**
 B) Write a note on neutron activation analysis. **05**
 C) Describe NO_x monitoring. **04**
- Q.7** A) Predict the NMR spectra of n-butanol and benzaldehyde. **05**
 B) Write applications of UV spectroscopy. **05**
 C) Write a note on types of vibrations in IR spectroscopy. **04**

Seat No.	
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M.Sc. (Semester – IV) (Old) (CGPA) Examination, 2017
AGROCHEMICALS AND PEST MANAGEMENT
AGRO-BASED MARKETING MANAGEMENT

Day & Date: Wednesday, 19-04-2017

Max. Marks: 70

Time: 02.30 PM to 05.00 PM

- N.B. :** 1) Questions **NO.1 Compulsory**
 2) **Solve any two questions each from sec II and sec III.**
 3) Figures to the **right** indicate **full** marks.

Section-I

Q.1 A) Choose the correct alternative given in the bracket. 14

- 1) _____ means inform about product and attract, persuade, retain customer.

a) Modern marketing	b) Branding
c) Grading	d) Labeling

- 2) _____ advertising is costly among all the other medias.

a) Television	b) Press
c) Radio	d) Film

- 3) RBI Nationalization in _____.

a) 1949	b) 1948	c) 1947	d) 1961
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- 4) NABARD made for _____.

a) Lending long to co-operative	b) Education
c) Agriculture	d) Import-export

- 5) International marketing is a impact of _____.

a) LPG	b) Socialism
c) both	d) none of these

- 6) Which tool vital in Agri business _____.

a) Place	b) Price
c) Promotion	d) All of these

- 7) _____ is second stage in PLC.

a) Introduction	b) Maturity	c) Growth	d) Decline
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- 8) _____ refers to the physical movement of goods from one to place to another.

a) Storage	b) Transportation
c) Marketing	d) Research

- 9) Marketing mix does not include _____.

a) Patience	b) Promotion
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Seat No.	
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M.Sc. (A.G.P.A.) (Semester-IV) (Old) (CGPA) Examination, 2017

MANUFACTURE OF AGROCHEMICALS

Day & Date: Monday, 24-04-2017

Max. Marks: 70

Time: 02.30 PM to 05.00 PM

- Instructions:**
- 1) All **questions** are **compulsory**.
 - 2) Attempt **any Two** questions from **Section II**.
 - 3) Attempt **any Two** questions from **Section III**.
 - 4) All questions carry **equal** marks.

SECTION-I

Q.1 Choose the most correct answer (one mark each) 14

- 1) Distillation is a process in which _____ components are separated from the mixture.
 - a) Solid
 - b) Volatile
 - c) Water
 - d) Gas

- 2) Gas absorption is known as _____.
 - a) Absorption of gas in solid
 - b) Absorption of gas in solid surface
 - c) Absorption of gas in liquid phase
 - d) All of these

- 3) Two solvents involved in solvent extraction should be _____.
 - a) Miscible
 - b) Immiscible
 - c) Partially miscible
 - d) All of these

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

- 5) The M+2 peak in mass spectra is observed due to presence of isotopes of _____.
 - a) Br
 - b) Cl
 - c) C
 - d) H

- 6) The reaction in which only one set of stereoisomer's is formed predominantly is called _____ Reaction.
 - a) Stereospecific
 - b) Public union
 - c) Stichiometric
 - d) None of these

- 7) _____ plays an important role in wage and salary administration
- Labour union
 - Public union
 - Employer – employee union
 - Trade union
- 8) Development is the _____ step between applied research and production
- Initial
 - Intermediate
 - Final
 - All of these
- 9) The BSI kitemark is applied to _____ goods.
- Electrical
 - Non-electrical and electrical
 - Mechanical
 - Chemical
- 10) Maneb is manufactured by using ethylene diamine and _____.
- Carbon monoxide and acid
 - Carbon disulphide and alkali
 - Carbon dioxide and alkali
 - Oxygen and alkali
- 11) Captan is manufactured by using _____.
- Phthalic acid
 - Tetrahydrophthalimide
 - Phthalimide
 - None of these
- 12) _____ cost includes the cost of interaction and testing of goods at various stages of manufacture.
- Failure
 - Optimizing
 - Prevention
 - Appraisal
- 13) The performance of an evaporator is evaluated in terms of _____
- Economy
 - Capacity
 - Efficiency
 - Economy
- 14) The liquids which undergoes decomposition at their boiling points can be separated by _____
- Simple distillation
 - Steam distillation
 - Distillation under reduced pressure
 - Fractional Distillation

SECTION – II

Q2 a) Explain the construction & working of sand filters.

7

- b) Write functions of personnel manager.
- Q3** a) Define disconnection & explain different types of disconnections 7
b) Describe importance & kinds of first aids.
- Q4** a) What are main aims of R and D? 7
b) Plan the synthesis of 2, 4-D and Carbaryl by using retro-synthetic approach. 7

SECTION – II

- Q5** a) Describe contaminates crystallizer 5
b) Write synthesis and unit process of dimethoate. 5
c) Write note on chemo selectivity. 4
- Q6** a) Describe steam distillation of a zoetrope's 5
b) Write synthesis and unit process of captain 5
c) Write note on ASTM and BIS specifications. 4
- Q7** a) Describe purpose of HRD 5
b) Describe health education for workers in industries 5
c) Write note on batch reactor. 4

Seat No.	
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M.Sc. (Semester – IV) (New) (CBCS) Examination, 2017
ARGOCHEMICAL AND PEST MANAGEMENT
AGRO-BASED MARKETING MANAGEMENT

Day & Date: Wednesday, 19-04-2017

Max. Marks: 70

Time: 02.30 PM to 05.00 PM

- N.B. :** 1). **All sections are Compulsory.**
 2) **Solve any two questions each from sec II and sec III.**
 3) **Figures to the right indicate full marks.**

Section-I

Q.1 A) Choose the correct alternative given in the bracket. 14

- 1) _____ is the sum total of all factors that affects Marketing transactions.
 - a) Marketing Concept
 - b) Marketing Environment
 - c) Marketing Research
 - d) Marketing Segmentation
- 2) Marketing is process which aims at _____
 - a) Promotion
 - b) Profit making
 - c) Satisfaction of consumer needs
 - d) Selling goods
- 3) Agro-based marketing management used for _____
 - a) Inform the farmer
 - b) Growth of agro-sector
 - c) Increase sales
 - d) All of these
- 4) _____ is an attempt to recognize distinct stages the sales history of the product.
 - a) Product Life Cycle
 - b) Project Life Cycle
 - c) Human Life cycle
 - d) None of these
- 5) Market segmentation based on _____
 - a) Industrial
 - b) Demographic
 - c) Social
 - d) All of these
- 6) _____ is not part of 4ps
 - a) Product
 - b) Price
 - c) People
 - d) Promotion
- 7) In modern marketing _____ is supreme
 - a) The creditor
 - b) The consumer
 - c) The supplier
 - d) None of these
- 8) Producer to consumer _____ channel.
 - a) One level
 - b) Two level
 - c) Three level
 - d) Four level
- 9) _____ involve collection & analysis of relevant various concept o marketing.

- a) Marketing Research b) Standardisation
c) Telemarketing d) None of these
- 10) _____ is first stage of new product development.
a) Creation of new idea b) Launch product
c) Evaluation of ideas d) None of these
- 11) Marketing environment includes does not include _____.
a) Legal b) Economical
c) Social and cultural d) History of market
- 12) _____ important in agro-based business marketing.
a) Public relation b) Sales promotion
c) Publicity d) Corporate image
- 13) _____ advertising is cheapest among all the other medias.
a) Television b) Press c) Radio d) Film
- 14) Agro-based marketing management used for _____.
a) Educate the farmer b) Growth of agro-sector
c) Proper information d) All of these

Section –II

Solve any questions from sec II

- Q.2** 1) Define market segmentation & Base of market segmentation. **07**
2) Explain the process of market research. **07**
- Q.3** 1) Use of 7 p's in agro-marketing **07**
2) Role of marketing in agro-based business **07**
- Q.4** 1) Explain the concept of marketing. **07**
2) Process of Market plan **07**

Section –III

Solve any two question from sec III

- Q.5** 1) Describe factor affect on buying behavior. **05**
2) Write type of distribution channels. **05**
3) Target Marketing **04**
- Q.6** 1) Factors influencing agro-based marketing management. **05**
2) Explain the advantage of direct marketing. **05**
3) Problems of agro based marketing. **04**
- Q.7** 1) Recent Trends in agro-based business. **05**
2) Marketing audit **05**
3) Modern concept of marketing **04**

Seat No.	
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**M.sc (AGMP) (Semester –IV) Examination,(New CBCS), 2017
ADVANCES IN PEST CONTROL-II**

Day & Date: Friday, 21-04-2017

Max. Marks: 70

Time: 02.30 PM to 05.00 PM

- N.B. :** 1) **All Questions are Compulsory.**
 2) **All questions carry equal marks.**
 3) **Solve any two Questions from Section-II**
 4) **Solve any two Questions from Section-III**
Section- I

Q.1 Choose correct answer from options given below. 14

- 1) The larval stage of _____ is only parasitic.
 - a) Predators
 - b) Parasitoids
 - c) Parasites
 - d) All of the above

- 2) Chemicals released by insect for mating purpose is called _____ pheromone.
 - a) Aggregation
 - b) Alarm
 - c) Sex
 - d) None of the above

- 3) Oviposition lure is the example of _____.
 - a) Attractants
 - b) Repellant
 - c) Pathogens
 - d) None of the above

- 4) Ecdysone is secreted by the _____ glands.
 - a) Pitutary
 - b) Prothorasic
 - c) Salivary
 - d) Pamcreatic

- 5) _____ chemicals induce permanent sterility in both sexes.
 - a) Attractants
 - b) Repellant
 - c) Chemosterilant
 - d) Pheromones

- 6) Male of Screw worm fly was sterilized by the use of _____ radiation.
 - a) Alpha
 - b) Beta
 - c) Gamma
 - d) None of the above

- 7) Harmonal IGRs work by mimicking or inhibiting _____ hormone.
 - a) Juvenile
 - b) Digestive
 - c) Both
 - d) None

- 8) The full form of NPV is _____.
 - a) Nuclear Polyhydrosis Virus
 - b) Nuclear Polyhy Virus
 - c) Nuclear Porous Virus

Seat No.	
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**M.Sc. (AGPM) (Semester-IV) (New) (CBCS) Examination, 2017
MANUFACTURE OF AGROCHEMICALS**

Day & Date: Monday, 24-04-2017

Max. Marks: 70

Time: 02.30 PM to 05.00 PM

- Instructions :** 1) **All Section are compulsory.**
 2) **Attempt any Two questions from Section II**
 3) **Attempt any Two questions from Section III.**
 4) **All question carry equal marks.**

SECTION-I

- Q.1 Choose the most correct answer (one mark each) 14**
- Drying involves the removal of relatively small amount of from the solute.
 a) Solution b) Moisture c) Solute d) All the above
 - Maneb is sold in the market as.....
 a) Heptachlor b) Sevin c) Dithione d) Rogar
 - Two solvents used in solvent extraction should be.....
 a) Miscible b) Immiscible
 c) Partially miscible d) None of these
 - The performance of an evaporator is evaluated in terms of....
 a) Economy b) Capacity
 c) Efficiency d) Capacity & Economy
 - During the assessment of the purchase order, the copy of order is send to the store.
 a) To make the funds available for purchase of goods
 b) To confirm that goods arrive in satisfactory condition
 c) To assure that goods are coming
 d) All of these
 - Cost arising when product components and materials fail to meet quality requirements prior to transfer of ownership to customer is known as cost.
 a) Failure b) Optimizing
 c) Prevention d) Appraisal
 - Imidacloprid is used as.....
 a) Herbicide b) Fungicide
 c) Neonicotinoid insecticide d) Rodenticide
 - A molecule whose synthesis is being planned is called....

- Q7** a) Explain health education for workers. **05**
b) Describe importance of various kinds of first aids. **05**
c) Write note on compartment tray. **04**

Seat No.	
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**M.Sc. (A.G.P.M.) (Semester-IV) (New) (CBCS) Examination, 2017
DISEASES OF CROP PLANTS – II**

Day & Date: Wednesday, 26-04-2017

Max. Marks: 70

Time: 02.30 PM to 05.00 PM

- N.B. :**
- 1) Attempt totally **five** questions.
 - 2) Section-I is **compulsory**.
 - 3) Attempt any **two** questions from Section-II and any **two** questions from Section –III.
 - 4) Figures to the right indicate **full** marks.

SECTION – I

Q.1 Rewrite the following sentences by choosing the correct alternative. 14

- 1) Erysiphe causes the disease _____.
 - a) Powdery mildews
 - b) Downy mildews
 - c) Covered smut
 - d) Late blight of potato

- 2) Macrocytic rust is the name given to some fungi _____.
 - a) Which produces bigger spores
 - b) Where all the five spore stages are produced
 - c) Which completes its life-cycle on a single host
 - d) Which selects many hosts to complete its life-cycle

- 3) White rust of crucifer is caused by _____.
 - a) Puccinia
 - b) Ustilago
 - c) Cystopus
 - d) Peziza

- 4) Fungus *Alternaria solani* belongs to class _____.
 - a) Ascomycetes
 - b) Deuteromycetes
 - c) Schizomycetes
 - d) Oomycetes

- 5) A haustorium of a fungus is meant for _____.
 - a) Fixing up to the mycelium to the host
 - b) Increasing the spread of the disease
 - c) Reproduction of the fungus
 - d) Absorbing nourishment from the host

- 6) The classification of the plant diseases is based mainly on _____.
 - a) The structure of vegetative mycelium
 - b) The asexual stage
 - c) The sexual reproductive stage
 - d) None of these

