Seat No.

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

Day & Date: Tuesday, 18-04-2017

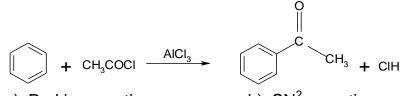
Max. Marks: 70

Time: 10.30 AM to 01.00 PM

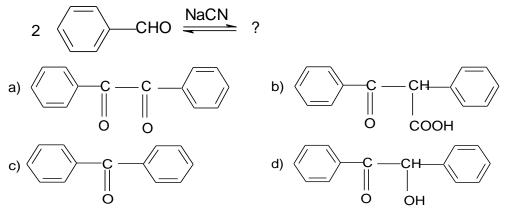
- **N.B.** : 1) All questions are **compulsory**.
 - 2) All question carry equal marks.
 - 3) Attempt any two questions from section II and III.
 - 4) Figures to the right indicate full marks.

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

1) Name the following reaction.

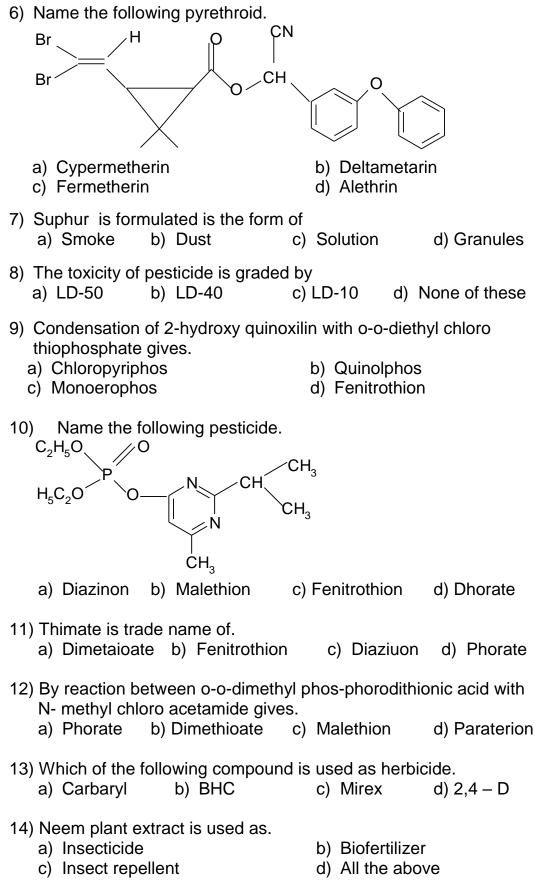


- a) Perkins reaction
- b) SN^2 -reaction
- c) Cannnizarro reaction
- d) Fridel-craft reaction
- 2) The reaction in which two atoms or groups are lost without replacement 6y other groups, these reactions are called as.
 - a) Addition reaction c) Substitution reaction
- b) Elimination reaction
- d) Rearrangement reaction
- 3) Predict two product of following reaction.



- 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
 - c) Reformatsky reaction
- 5) Methyl bromide is best
- b) knoevenagel reaction
- d) Cannizarro reaction
- - a) Fumigant b) Herbicide c) lusecticide
 - d) Rodenticide

SLR-RA – 01



SLR-RA - 01

SECTION – II

Q.2	Atte A) B)	mpt any two question from this section: Discuss perkins reaction with mechanism. What are pest and pesticides? Describe systemic and non-systemic pesticides.	07 07
Q.3	A) B)	What are synthetic pyrethrins give synthesis of Permetherin and Deltametherin. Discuss Wagner-Meerwein rearrangement reaction with mechanism.	07 07
Q.4	A) B)	Give synthesis and uses of phorate and phosphamidon.Describe the following pesticide formulations.1. Emulsifiable concentrate2. Dust	07 07

SECTION – III

Q.5	Atte A) B) C)	mpt any two question from this section: Explain sulphonation reaction with mechanism. Describe the methods of extraction of Neem plant. Give synthesis of Chlorophyriphos	05 05 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

Seat	
No.	

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

Time: 10.30 AM to 01.00 PM

Max. Marks: 70

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

Q.1 Choose Correct option given below: 14 _____ is an example of concentrated organic manure. 1) b) FYM c) Bone meal a) Oil cake 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? c) Mo b) Zn d) Fe a) K 4) Gibberellins acid is found in . a) Coconut water b) Avena sativa c) Raphanues sativa d) Gibberella fujikuosi 5) Cow pea (vigna Catjava) is an example of _____. a) Guano b) Green manure c) Bucky organic manure d) Councetrated manure. 6) [H^t] 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 PH=5, indicates that the solution reaction is _____ b) Neutral c) Acidic d) Alkaline a) Basic

SLR-RA - 02

	9) Coconut milk contains the growtha) Cytokininb) GA	-	
	10) Root initiation is the major role a) IBA b) ABA c)	of 2-4-D d) 2-4-5-8	ST
	11) Nitrogen peoceutage in Ammoa) 21%b) 24%		I
	12) Biogas is composed of a) Butane & co2 c) Ethane & co2	b) Methane & co2 d) Acetyleve & co2	
	13) is obtained from the wa house.	ste produce of slaughter	ſ
	a) Guano meal c) Bone meal	b) Oil cake d) Fish meal	
	Section II (Any Two)		
)	A) What are fertilizers? Describe the ma Ammonium Molybdate.	nufacture of	07
	B) Write in brief about super Compost.		07
	A) Describe the Structure of soil.		07
	B) Describe the Chemical properties of s	oil.	07
•	A) What are the phytohormones ? Descr applications of Auxin.	ibe the practicle	07
	B) Write in brief about Green manures		07
•	 A) What are the deficiency Symptoms of B) Describe the role of nqu & nqo. C) Write a note on Liquid Manure. 	Fe & Mg.	05 05 04
;	 A) Write a note on 'NPK' fertilizers. B) Bluegreen Algae (BGA) as a bio fertili C) Bangalore methods of Composting. 	zers.	05 05 04
,	 A) Write in brief Avena Curvature Test B) What are the plant growth hormons? C) What are the micronutrients ? 		05 05 04

Q.2

Q.3

Q.4

Q.5

Q.6

Q.7

Page 1 of 2

Max. Marks: 70

Seat No.

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

Day & Date: Saturday, 22-04-2017

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. c) Three a) Four b) Five d) One 2) Scutellum is present in bug____ c) Moth d) Beetle a) Flies b) bug Monolliform antenae is found in _____ b) Termite a) Dragonfly c) Cockroach d) None of the above 4) Sponging type of mouth parts found in a) Female mosquitob) Till hawk mothc) House flyd) Gall fly 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 aemigerab) Amasacta mooreic) Odontotermus obesusd) 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) Stomodeumb) Proctodeumc) Mesenterond) None of these
- 9) In winter season some lepidopteran pest goes to the _____.
 - a) Hibernation c) Parasitic
- b) Aestivation
- d) Saprophytic

	 10) Position of mouth parts in Bugs are a) Hypognathus b) Opisthognathus c) Prognathus d) Lophopidae 			
	 11) Apis cerana is also called as a) Asian bee b) Giant rock bee c) Little bee d) None of these 			
	 12) Scientific name of Eri silkmoth is a) Bombyx mori b) Morus alba c) Samia Cynthia d) None of the above 			
	 13) Silkworm rearing done by usingplant leaves. a) Bombyx mori b) Morus alba c) Cajanus cajana d) All of the above 			
	 14) Malphigian tubules are found in the system. a) Circulatory b) Digestive c) Excretory d) Reproductive 			
	Section- II			
Q.2	A) Define apiculture. Describe the types of honey bee.	07		
	B) Describe the morphological details of thorax of cockroach.	07		
Q.3	A) Describe the male reproductive system of cockroach	07		
	B) Describe the life cycle pattern of Aphid.	07		
Q.4	A) Enlist the different types of legs observed in insect and write a note on cursorial type of leg.	07		
	B) Explain the digestive system of Cockroach.	07		
	Section- III			
Q.5	 A) Write short note diseases of mulberry plant. B) Describe the nature of damage by rat. C) Write a note on snail. 	05 05 04		
Q.6	 A) Describe the use of Parasitoid. B) Write a note on Nematode. C) Describe the piercing and sucking type of mouth parts of insect. 	05 05 04		
Q.7	 A) Write note on wing and their modification. B) Explain the life cycle of White grub. C) Define Entomology. Write a note on beneficial insect. 	05 05 04		

Seat No.

M.sc. (A.G.P.M.) (Semester – I) (New) (CBCS) Examination,2017 PLANT PATHOLOGY AND WEED MANAGEMENT

Day & Date: Tuesday, 25-04-2017

Max. Marks: 70

Time: 10.30 AM to 01.00 PM

Q.1

 N.B.: 1) Attempt totally five questions. 2) Question no.1 is compulsory (Section-I). 3) Attempt any two questions from question no.2 to 4 (section-II). 4) Attempt any two questions from question no.5 to 7 (Section-III). 5) Figures to the right indicate full marks. 				
Rewrite the following sentences 1) Fungi are unable to store food i a) Lipid c) Starch				
 2) is phanerogamic para a) Lotus c) Albigo 	sitic plant. b) Cercospora d) Cuscuta			
 3) are acellular pathogens a) Algae b) Bacteria 	s. c) Fungi	d) Viruses		
 4) Anthrax disease caused by a) Algae b) Bacteria 	c) Fungi	d) Viruses		
5) Cephaleuros viresense is a) Algae b) Bacteria	pathogen. c) Fungi	d) Viral		
 6) Cynadon dactylon propagated a) Seeds b) stolon c) 	by a&b d)no	one of these		
7) Opuntia spp. Is type c a) Wasteland b c) Coastal c	of weed. b) Aquatic d) None of these			
8) Inanimate diseases were causea) Animalsc) Both a & b	ed by b) Insects d) None of the	se		
9) Viruses area) Nucleoproteinsc) Pathogens	b) Nucleocaps d) All of these	ids		

	10) disease is caused by I a) Rust of Mango	b) GSD	
	c) Root knot	d) Citrus canker	
	11) Propagule of pathogen that indu	uces plant disease is termed as	
	a) Bud c) Vector	b) Parasite d) Inoculums	
	,	alled weeds.) Biennials) None of these	
	13) Glyphosate application for weed method.	t control istype of	
	a) Biological b)Physical)None of these	
	 14) Banana wilt diseae is caused by a) Xanthomonas citri b) Pseudomonas solanecearum c) Agrobacterium tumefaciens d) None of these 		
Q.2	 A) Give an account of disease caus B) Enlist the methods of plant disea Microscopic method of plant dise 	ase diagnosis. Explain	07 07
Q.3	Explain : A) Role of ethylene as phytohormol B) Ergot of Bajara.	ıe.	07 07
Q.4	 A) Define weed. Comment up on a B) Discus properties of Mycoplasma disease. 		07 07
	Sectio	on- III	
Q.5	 A) Classification of weeds. B) Sugarcane mosaic disease. C) Little leaf of Brinjal. 		05 05 04
Q.6	 A) Explain sigatoka of Bananas. B) Characteristics of weeds. C) GSD in sugarcane. 		05 05 04
Q.7	 A) Loss caused by weeds in agricul B) Process of viruses multiplication C) Write a note on Nematodes. 		05 05 04

SLR-RA – 06

Seat No.

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.

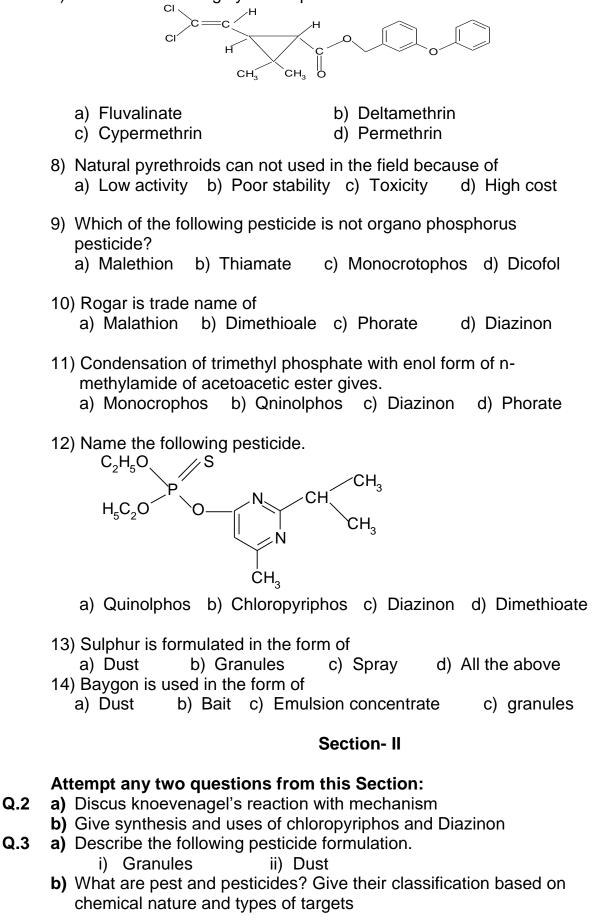
Section-I

- Q.1 Select most correct alternative of the following each carry one 14 mark.
 - 1) Sulphonation of benzene is an example of
 - a) Nucleaphilic substitution
 - c) Nucleaphilic addition
- b) Electrophilic substitution
- d) Electrophilic addition
- 2) Name the following reaction

 $C_6H_5CHO+(CH_3CO)_2O \xrightarrow{CH_3COONa} C_6H_5 - CH=CH-COOH+CH_3COOH$ 180⁰C

- 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
 - c) Aldol condensation
- b) Perkin's 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) Tertiaryl butyl bromide
- 5) Which of the following is synthetic pyrathroid?
 - 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

7) Name the following synthetic pesticide.



07

07

07

07

SLR-RA – 06

Q.4	 a) Give synthesis uses of Maththion and Diamethioate b) Discuss pinacol-pinacolone rearrangement reaction with mechanism. 	07 07
	Section- III	
Q.5	 Attempt any two question from this Section a) Describe the recent insect attractants and repellents b) Give synthesis and uses of Finitrothion c) Discuss E₂ - Elimination reaction with mechanism. 	05 05 04
Q.6	 a) Discuss Cannizarro's reaction with mechanism. b) Describe the use Neem extract for pest control. c) Describe the formulation of Aerosols 	05 05 04
Q.7	 a) Discuss SN¹ - reaction with mechanism. b) Give synthesis and use of Deltamethrin c) Give synthesis and use of Quinalphos. 	05 05 04

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SLR-RA – 10

Seat No.

> Agrochemicals & Pest Management (Semester – II) (New) (CBCS) Examination. 2017

CHEMISTRY OF PESTICIDES AND THEIR FORMULATIONS – II

Day & Date: Wednesday, 19-04-2017

Time: 10.30 AM to 01.00 PM

N.B. : 1). All sections are **Compulsory**

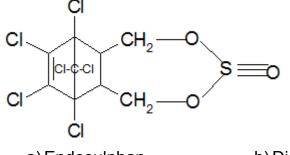
- 2) Attempt any two questions from sec II and sec III
- 3) Figures to the **right** indicate **full** marks.
- 4) All questions carry equal marks.

(Section – I)

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

- 1) Butachlor is used for
 - a) Growth promoter
 - c) Flower inictor
- b) Growth retardant
- d) Weed control

2) Name the following pesticide.



a) Endosulphan c) Ethophan

b) Dicofol d) Metaoxychlor

d) 2,4-dichloro phenol

- 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
- 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

C)

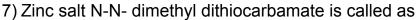
6) Reaction between Catechol, Isopychloride and methyl isocynate in presence of base forms.

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

Aldicarb

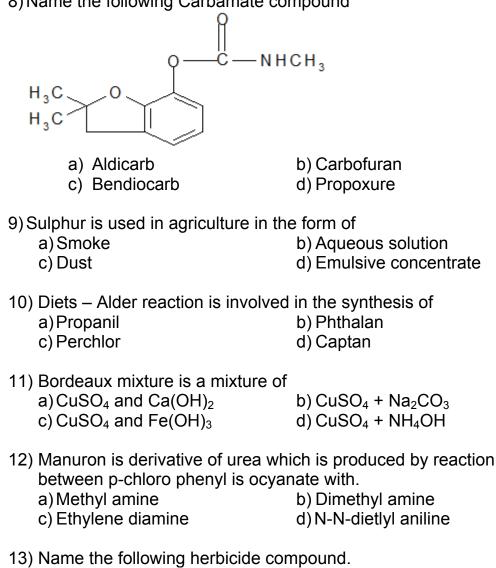
Max. Marks: 70

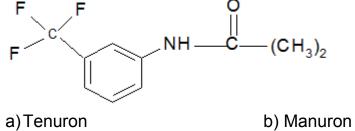
14



- b) Zineb
- a) Ziram c) Maneb d) None of these







d) Methiuron

- 14) Captan is synthesized by reacting perchlor with
 - a)Phthalimide

c) Fluro methron

c) Acetamide

- b) Succinamide
- d) Tetrahydro phthalimide

SLR-RA - 10

	(Section – II)	
Q.2	 Attempt any questions from this section: 1) What is oxime carbamate? Give synthesis of ziram and zineb 2) Discuss the role of nito compounds as pesticides 	07 07
Q.3	 Give synthesis and properties of Bagoan and methomyl Give synthesis and uses of Trifluralin and Nitralin 	07 07
Q.4	 Describe the role of zinc oxide and zinc phosphate as pest control Give synthesis and uses of captan and propanil 	07 07
	(Section – III)	
0 F	Solve any two question from this section:	05
Q.5	 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

3) Write note on Mercaptans and sulphide.

Page **3** of **3**

Max. Marks: 70

Seat No.

Day & Date: Friday, 21-04-2017

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

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** guestions from Section III. 4) All questions carry equal marks. SECTION - I Choose the most correct answer (one mark each): 14 Q.1 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) Coductometric b) Colorimetric d) P^H metric c) Potentiometric 4) In a conductivity cell _____ plates are used as a electrode. d) Platinum b) Aluminium a) Copper c) Zinc 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 d) Normal c) Reverse 7) All chromatographic techniques are based on the principle of a) Electrolysis b) Separation c) Salvation d) Precipitation 8) In paper Chromatographt, the Rf 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

		EDTA is used as a) Titrant b) Titrand c) Indicator d) None of these	
	a b c	 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 	
		Which of the following is used as the primary standard in redox titration? a) KMnO ₄ b) K ₂ Cr ₂ O ₇ c) CaCO ₃ d) HCI	
	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) Photocathodeb) Photoanodec) Photond) None of these	
Q.2	a)		07
	b)	chromatography. What are acid-base indicators? Discuss the neutralization curves for strong acid and weak base titration.	07
Q.3	a) b)	What is precipitation titration? Describe experimental procedure for determination of halide ion in solution by precipitation titration. Write construction and working of glass electrode.	07
Q.4	a)	Describe principle, procedure and application of thin layer	07
	b)	chromatography. Write principle and instrumentation of atomic absorption spectroscopy.	07
		Section III	
Q.5	a) b) c)	Explain metallochromic indicators in brief. Describe potentimetric precipitation titration. Write application of polarimeter in pesticide analysis.	05 05 04
Q.6	a) b) c)	Describe the process of solvent extraction in detail. Write principle and methodology of stripping voltametry. Write note on specific and equivalent conductance.	05 05 04
Q.7	a) b)	Write applications of Nephelometer and Turbidimeter. Write application of flame photometer in qualitative and	05 05
	c)	quantitative analysis Write note on gravimetric estimation of SO_4^-	04

Seat No.

> 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 Section	Questions from Section-III			
Q.1	Choose correct answer from o		14		
	 Dengue causes due to 		••		
	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 p				
	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 inse	ects are known as			
	a) Pesticides	b) Insecticides			
	c) Rodenticides	d) Herbisides			

		 9) is parasitic on domest a) Khapara betle c) Mite 	ic animal. b) Cockroach d) Housefly	
		 10) Anguina spp. is called as a) Root knot c) Cyst 	nematode. b) Seed gall d) Molya	
		 11) is the pest of livestoch a) Khapara beetle c) Black fly 	k. b) Cockroach d) Housefly	
		12) Which one of the following is crop.a) Houseflyc) Snail	molluscan pest of agricultural b) Termite d) Thrips	
		 13) Rat belongs to the order of _ a) Coleopteran c) Batocera 		
			as predators in biological pest b) Lepidoptera d) Rodentia	
Q.2	A) B)	Section- II Describe life cycle pattern of Hous Describe reproduction pattern in A diagram.		14
Q.3		Describe Cyst forming nematodes Describe life cycle pattern of pulse		14
Q.4		Describe nature of damage and co fly.		14
	D)	Explain slug as a molluscan pest c	agricultural crops.	
Q.5	B)	Section- III Describe damages caused by Aed Explain damages caused by Wild I Write differences in Locust and Gra	ooar.	05 05 04
Q.6	B)	Describe polymorphism in Termite Write control measures on Mealy b Write morphological peculiarities o	bug.	05 05 04
Q.7	B)	Discuss specific feeding character on Cutworm Draw labeled diagram of life cycle Explain damages caused by sucking	of hairy caterpillar.	05 05 04

Max. Marks: 70

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

Day & Date: Tuesday, 18-04-2017

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.

- 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
 - c) Biomagnifications
- b) Bioconcentration d) Bioaccumulation
- 2) Toxicokinetics of toxic substance involves
 - a) Absorption

- b) Distribution d) All the above
- c) Transformation
- 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
 - c) Oxidation
- 5) In _____ pesticides are transported through plasma
 - membrane without use of cellular energy.
 - a) Passive transport c) Both a and b
- b) Active transport d) None of the above
- d) Reduction

b) Phase-II

14

	 6) In reaction glucouronide formation takes place. a) Enzymatic conjugation b) Microsomal oxidation c) Reduction d) None of these 		
	 7) forms complex w a) Agonist c) Xenobiotics 	ith receptor. b) Antagonist d) Poison	
	8) Minimata disease was firsta) Indiab) China	recorded in c) Shrilanka d) Japan	
	a) Mitochondrion	hrome linked monooxygenases b) Chloroplast d) Smooth endolplasmic reticulum	
	10) Fungicides kill the a) Insects c) Fungi	 b) Bacteria d) All the above	
 11) Silicon inhalation causes in human being. a) Asbestosis b) Silicoponia c) Silicosis d) None of these 			
	12) Organo-phosphorus pest inhibition of enzyr	icides affect nervous system by ne.	
	a) Acetylcholine	 b) Aspartate amino transferase 	
	c) Succinate dehydrogenase	d) All of these	
	13) Albert firstly studied the r Xenobiotics.	nechanism ofof	
	a) Biotransformationc) Bioconcentration		
	Section-	II	
Q.2	 A) What are pesticides? Discussion in target organism. B What is teratogenecity? Explosion different teratogens 		
Q.3	 A) Define poison and comment poisons. (1) Arsenic (2) Opium B) Discuss the effects of postion 		
	B) Discuss the effects of pestic	iue residues on soil micro -	

B) Discuss the effects of pesticide residues on soil micro organism. 07

07

07

07

Q.4	A) Explain the effects of pesticides on human health.	07
	B) Comment on the 'Entry of pesticides in Environment' Section- III	07
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

Page **3** of **3**

Seat

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

Day & Date: Thursday, 20-04-2017

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

Choose correct answer from options given below. 14 Q.1 1) Menochilus sexmaculatus is _____ b) Larval parasitoid a) Egg 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 b) Mechanical a) Chemical c) Legal d) None of above 4) _____ is the natural enemy of sugarcane wooly aphid. a) Dipha b) Trichogramma d) All the above c) Nymph 5) 'Bt' insecticidal formulation act as _____ b) Stomach poison a) Contact 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 d) All the above c) Attractants 7) Knapsack sprayer is the type of ______ sprayer. a) Hand operatedb) Compressionc) Power operatedd) All the above

No.

Max. Marks: 70

	 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 ispest. 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 	
Q.2	Section- II A) Explain the factors affecting on Host Plant Resistance. B) Give an account of Attractants in pest control programme With suitable example.	07 07
Q.3	 A) Enlist various methods of pest control. Explain the cultural Method of pest control with suitable example. B) Define host plant resistance. Explain mechanism of resistance in plants. 	07 07
Q.4	 A) Enlist various methods of pest control. Explain the Mechanical Methods of pest control with suitable example. B) Enlist the plant protection appliances. Explain hand atomizer sprayer 	07 07
Q.5	Section- III A) Repellents and their role in pest control. B) Use of Neem in plant protection. C) Write a note on Insecticides.	05 05 04
Q.6	 A) Management of stored agricultural commodities. B) Breeding for insect resistance. C) Types of nozzles. 	05 05 04

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

Max. Marks:70

Seat No.

M.Sc.(A.G.P.M) (Semester – III)(Old) (CGPA) Examination, 2017 **ANALYSIS OF AGROCHEMICALS**

Day & Date: Saturday, 22-04-2017

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 detectotor in the UV-Visible spectrometer? a) Photocell b) Barrier layer cell d) Scintillation counter c) Photomultiplier tube 5) Scissoring, rocking, wagging and twisting are _____ type of vibrations a) Symmetric b) Asymmetric d) None of these c) Bending 6) Which types of radiations are observed in NMR spectroscopy? b) Visible a) IR c) Microwave d) Radiofrequency 7) The most intense peak in the mass spectrum is called b) Base peak c) lon peak a) Base line d) None of these 8) How many signals can observed in PMR of ethyl alcohol molecule?

a) 1 d) 4 b) 2 c) 3

Light released as a result of chemical reactions is called _ a) Fluorescence b) Chemiluminescence c) Phosphorescence

- 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?	?
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- 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
 - c) Absorption

b) Partition

d) Both a and b

- 14) HPLC is used in _
 - a) Pharmaceutical chemistry
 - c) Chemical analysis
- b) Biochemical 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) b)	Describe instrumentation and applications of UV spectroscopy Draw schematic diagram of NMR spectrometer and describe shielding and deshielding effect	7 7
Q.5	a) b) c)	Section III Describe analysis of ammonia Draw schematic diagram of mass spectrometer Write a note on finger print region.	5 5 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

Seat No.

M.Sc. (A.G.P.M) (Semester –III)(Old) (CGPA) Examination,2017 **PEST & DISEASE OF CROP PLANTS-I**

Day & Date: Tuesday, 25-04-2017

Max. Marks: 70

Time: 02.30 PM to 05.00 PM

N.B.: 1) All sections 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	Rewrite the following sentences by choosing appropriate alternative. 1) The casual organism of Tikka disease of ground nut is		
		 b) Ephilis psidi d) Cercospora arachidocola 	
	7	minthosporium sacchari after b) M-toxin d) HS-toxin	
	 3) In Ergot disease of Bajara, a many embedded a) Perithecia c) Cleistothesia 	cross section of capitulum possess b) Apothesia d) Nanothesia	
	4) Sorghum shoot fly causes ma	aximum damage at stage. b) Maggot d) Nymph	
	5)referred as disease pr a) Toxicity c) Rapidity	oducing power of a microorganism. b) Pathogenicity d) Immunity	
	6) Soybean rust can be effectivea) Sulphur dustc) BHC	ely controlled by spraying b) Dithane-78 d) Bordeaux mixture	
	 7)part of the flower gets a) Androecium c) Corolla 	damaged by shoot fly. b) Pedicel d) Ovary	

8) Erysiphe cruciferarum is the causal organism of _____.

a)	Tikka	disease	of	groundnut
----	-------	---------	----	-----------

- b) Powdery mildew of mustardd) Powdery mildew of grapes
- c) Smut of Jowar

	9) In some other countries, Brow spermogonia and aecia ona) Thalictrum sp.	vn rust of wheat produces b) Oxalis corniculata	
	c) Barberry	d) Brinjal	
	10) The causal organism of 'Bersa) Macrophomia sp.c) Bremia sp.		
	11) Viral diseases of crops mostla) White grubsc) Fruit flies	y transmitted by b) Aphids d) None of the above	
	a) Blister beetle	stem is the key features of b) Stem borer d) None of the above	
	13) The casual organism of 'Pow a) Erysiphe polygonic) Erysiphe graminis	dery Mildew in Mustard' is b) Erysiphe cichoracearum d) Erysiphe cruciferarum	
	 14) Use of light traps for controlling methos. a) Cultural method c) Physical method Section 	b) Mechanical methodd) Legal method	
Q.2	 A) What is pest? Comment on bi forage crop pests that you ha B Describe symptoms, nature or downey mildew of Bajara. 	ve studied.	07 07
Q.3	 A) What do you mean forage crops one forage crops that you hat B) Describe the biology, life cyclimanagement of stem borer of 	ve studied. le, nature of damage and	07 07
Q.4	 A) Describe the biology, life cycl brown plant hopper. B) Explain disease. Highlight sy management of wilt of cow performance. 		07 07
Q.5	 A) Maize blight: Morphology and B) Tikka disease of groundnut: \$ C) Powdery mildew of gram 	- III d control.	05 05 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

M.Sc. (Agrochemical and Pest Management) (Semester –III) (CBCS) (New) Examination, 2017 **ADVANCES IN PEST CONTROL-I**

Day & Date: Thursday, 20-04-2017

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.

Which is true DDT? It is _____

a) Copper sulphate

c) Calcium chloride

- a) Not a pollutant c) An antiseptic agent
- b) An antibiotic d) A non-degradable pollutant
- 2) Which is major component of Bordeaux Mixture?
 - b) Sodium chloride
 - d) Magnesium sulphate
- 3) Which one is correctly matched?
 - a) Carbamates malathion b) Organophosphates –carbofuran
 - d) Organochlotide --endosulphan c) Carbamates – malathion
- 4) The most quickly available source of nitrogen to plants are
 - a) Amide fertilizers c) Nitrate fertilizers
- b) Ammonia 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
- Pesticides designed to kill birds are called _____.
 - a) Herbicide b) Aviacide
 - c) Birdicide d) Nematicide
- 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

No.

Max. Marks: 70

14

- c) Copper, manganese, boron
- d) Magnesium, calcium, iron
- 10) Before applying any pesticides, the applicator should read and understand the chemical label.
 - a) True b) False
 - c) Not needed d) Both a and b
- 11) Adjusting the planting date for crop to avoid a pest outbreak is an example of ______
 - a) Cultural method b) Chemical method
 - c) Biological method
- d) Counter method
- 12) Insecticide that act by entering in plant system are said to be
 - a) Contact poison b) Stomach poison
 - c) Systemic insecticide d) All the above
- 13) Spraying techniques are classified on the basis of _____
 - a) Low volume b) High volume
 - c) Ultra-low volume d) All the above
- 14) IPPC stands for ____
 - a) International Plant Protection Convention
 - b) International Plant Protection Commission
 - c) Integrated Plant Protection Convention
 - d) Integrated Plant Protection Commission

Section-II

Q.2	 A) Explain biochemical basis of plant defense. B Describe insect plant host relation and resistance. 	07 07
Q.3	 A) Describe role of biological agents controlling agriculture pest. 	07
	B) Explain the advantages and disadvantages of Neemicide.	07
Q.4	 A) Describe the store grain pests. B) Explain the features of Hand Compression Sprayer. Section- III 	07 07
Q.5	 A) Write note on Chemotaxis. B) Ecological control in Agriculture C) Graded bioassay 	05 05 04
Q.6	 A) Explain the mechanical control of pest. B) Explain the cultural control of pest. C) Write note on formulations of insecticides. 	05 05 04
Q.7	 A) Explain in brief with examples: Pheromones B) Write short note on hormonal control. C) Advantages of chemosterilization. 	05 05 04

Seat No.		
No.	Seat	
	No.	

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	 Q.1 Choose the most correct answer (one mark each): 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 isa) Dynesb) Curie	c) Debye d) Newton	
	ed as detector in HPLC? b) Fluorescence detector d) Refractometer		
	s added as maximum suppressor b) Glucose solution d) Gelatin solution		
	lectrolyte KCI is called b) Diffusion current d) Direct current		
	7) <u>transition is more energian</u> σ - σ * b) n-pi	getic. c) pi-pi∗ d) n-σ∗	
	8) In paper chromatography watera) Mobile phasec) Indicator		

	9)spectroscopy gives information regarding bonding present				
	in the molecule. a) IR	b) UV	c) NMR	d) Mass	
	10) The carbony1 st a) 1720	retching frequenc b) 1750			
	 11) The Rf 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) Methy1 protons in case of impure ethanol gives the splitted peak havingmultiplicity 				
	. 2	b) Doublet	c) Triplet	d) Quartet	
	14) The Rf value is a a) One b	always)Less than one	c) Two	d) Three	
		Section- II			
Q.2	A) Describe the H₂SB) Write application	-	•		07 07
Q.3					07
	Chromatography. B) Describe instrumentation of IR spectroscopy.				07
Q.4	, 5 1 1				07
	polarography and discuss its principle and working. 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. C) Describe NO_x monitoring. 				
Q.7	 A) Predict the NMR spectra of n-butanol and benzaldehyde. B) Write applications of UV spectroscopy. C) Write a note on types of vibrations in IR spectroscopy. 				05 05 04

Seat No.

M.Sc. (Semester – IV) (Old) (CGPA) Examination, 2017 AGROCHEMICALS AND PEST MANAGEMENT AGRO-BASED MARKETING MANAGEMENT

Day & Date: Wednesday, 19-04-2017

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 d) Labeling c) Grading 2)__ advertising is costly among all the other medias. b) Press Television a) Radio d) Film c) RBI Nationalization in _____ a) 1949 b) 1948 c) 1947 d) 1961 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
- 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

Max. Marks: 70

c) Price	d) Product				
10) RBI Establishment i a) 1932 b) 19	in 935	d) 1930			
11) advertising a) Television c) Radio	g is cheapest among all th b) Press d) Film	e other medias.			
 12) Agro-based marketing management used for a) Educate the farmer b) Growth of agro-sector c) Proper information d) All of these 					
 13) marketing is process of selecting one or more market segment and then development product. a) Branding b) target c) Nich d) Grading 					
14) types of (a) Face to face c) Telemarketing	direct marketing b) Direct mai g d) All of these	il e			
Section –II Solve any questions from sec II					
 Function of marketing. Promotional tools use in 'Shah Seeds' to increase sales. 					
 Explain the Basis of market segmentation. WTO 					
 Marketing environment Describe the Function of NABARD. 					
Section –III Solve any two question from sec III					
 Explain the stages PLC. Explain the advantage of direct marketing. Describe function of GATT. 					
 Explain the importance of supply chain management. Target marketing for 'Patel fertilizers'. Explain Importance Marketing research. 					
 1) Explain the one level distribution channel. 2) Describe price mix in fertilize industry. 3) Explain brand benefit to increase sale. 					

Q.2

Q.3

Q.4

Q.5

Q.6

Q.7

M.Sc. (A.G.P.A.) (Semester-IV) (Old) (CGPA) Examination, 2017 MANUFACTURE OF AGROCHEMICALS

Day & Date: Monday, 24-04-2017

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) 1) Distillation is a process in which _____ components are separated from the mixture.

- a) Solid
- b) Volati
- 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
- A generalized fragment usually an ion produced by a disconnection is _____.
 - a) Synthon b) Synthetic equivalent
 - c) Reagent d) Target molecule
- 5) The M+2 peack 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

Max. Marks: 70

14

b) Volatile

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

SECTION – II

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

Q3	a) b)	Define disconnection & explain different types of disconnections Describe importance & kinds of first aids.			
Q4	a) b)	What are main aims of R and D? Plan the synthesis of 2, 4-D and Carbaryl by using retro- synthetic approach.	7 7		
Q5	a) b) c)	SECTION – II Describe contaminates crystallizer Write synthesis and unit process of dimethoate. Write note on chemo selectivity.	5 5 4		
Q6	a) b) c)	Describe steam distillation of a zoetrope's Write synthesis and unit process of captain Write note on ASTM and BIS specifications.	5 5 4		
Q7	a) b) c)	Describe purpose of HRD Describe health education for workers in industries Write note on batch reactor.	5 5 4		

b) Write functions of personnel manager.

Seat No.

M.Sc. (Semester – IV) (New) (CBCS) Examination, 2017 ARGOCHEMICAL AND PEST MANAGEMENT AGRO-BASED MARKETING MANAGEMENT Max. Marks: 70 **N.B.**: 1). All sections are Compulsory. 2) Solve any two guestions 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 Marketing is process which aims at _____ b) Profit making a) Promotion c) Satisfaction of consumer needs d) Selling goods Agro-based marketing management used for _____ a) Inform the farmer b) Growth of agro-sector 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 d)None of these Market segmentation based on _____ b) Demographic a) Industrial d) All of these c) Social 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 supplyer 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.

Day & Date: Wednesday, 19-04-2017

Time: 02.30 PM to 05.00 PM

	a) Marketing Researchc) Telemarketing				
	 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 includea) Legalc) Social and cultural				
	12) important in agro-bas a) Public relation c) Publicity				
	13) advertising is cheape a) Television b) Press	est among all the other medias. c) Radio d) Film			
	14) Agro-based marketing managea) Educate the farmerc) Proper information	b) Growth of agro-sector			
	Section	n –II			
Q.2	Solve any question 1) Define market segmentation & Base 2) Explain the process of market resea	e of market segmentation.	07 07		
Q.3	 Use of 7 p's in agro-marketing Role of marketing in agro-based business 				
Q.4	 Explain the concept of marketing. Process of Market plan 				
	Section -	-111			
<u> </u>	Solve any two questi		<u> </u>		
Q.5	 Describe factor affect on buying beh Write type of distribution channels. Target Marketing 	iavior.	05 05 04		
Q.6	 Factors influencing agro-based marketing management. Explain the advantage of direct marketing. Problems of agro based marketing. 				
Q.7	 Recent Trends in agro-based business. Marketing audit Modern concept of marketing 				

Max. Marks: 70

M.sc (AGMP) (Semester -IV) Examination, (New CBCS), 2017 ADVANCES IN PEST CONTROL-II

Day & Date: Friday, 21-04-2017

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. 1) The larval stage of _____is only parasitic. a) Predators b) Parasitoids c) Parasites d) All of the above Chemicals released by insect for mating purpose is called pheromone. a) Aggregation b) Alarm c) Sex d) None of the above Oviposition lure is the example of _____ a) Attractants b) Repellant d) None of the above c) Pathogens 4) Ecdysone is secreated 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 7) Harmonal IGRs work by mimicking or inhibiting _____hormone. b) Digestive c) Both a) Juvenile d) None 8) The full form of NPV is a) Nuclear Polyhydrosis Virus b) Nuclear Polyhy Virus

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d) None of the above

c) Nuclear Porous Virus

	 d) None of the above 9) Tricho-cards are produced by Indian Central Cotton Research Centre 					
	a) Nashik b) Nagpur c) Pune d) Aurangabad					
	 10) E. F. Kinipling was initiatedcontrol of screw worm fly a) Mechanical b) Cultural c) Genetic d) None of the above 					
	 11) Pathogens synthesizestoxins. a) Anabolic b) Metabolic c) Both a and b d) None of the above 					
	 12)referes to the disease producing power of a group or sp.of micro-organisms . a) Infectivity b) Virulance c) Pathogenecity d) All the above 					
	 13) Ti plasmid used for transfer process in rDNA technique. a) Bacterium a) Nucleus b) Gene c) None of above 					
	14) <i>Trichogramma chelonus</i> isparasitoid. a) Egg b) Larval c) Pupal d) Adult					
	Section- II					
Q.2	A) Define the biological control. Explain the different techniques used in biological control with suitable example.B) What is microbial control of insect pest and explain viral pathogen in details.	07 07				
Q.3	A) What are the semiochemicals? Discus the chemosterilants.B) Explain insect growth regulators.					
Q.4	A) Describe the biotechnological applications in pest					
	management. B) Describe the methodology of BT gene transfer in plants.	07				
Section- III						
Q.5	 A) Explain Attractants B) Use of Fungi pathogen in pest management C) Sex pheromones 	05 05 04				
Q.6	 A) Light activated pesticides B) Antifident C) Enlist the advances in pest control 	05 05 04				
Q.7	 A) Geneticl method of pest control. B) Hot water treatment for disease control. C) Somaclonal variability. 	05 05 04				

Max. Marks: 70

M.Sc. (AGPM) (Semester-IV) (New) (CBCS) Examination, 2017 MANUFACTURE OF AGROCHEMICALS

Day & Date: Monday, 24-04-2017

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) 1) Drying involves the removal of relatively small amount of from the solute.

a) Solution b) Moisture c) Solute d) All the above

2) Maneb is sold in the market as.....a) Heptachlor b) Sevin c) Dithione d) Rogar

3) Two solvents used in solvent extraction should be.....

- a) Miscible b) Immiscible
- c) Partially miscible d) None of these
- 4) The performance of an evaporator is evaluated in terms of....
 - a) Economy
- d) Capacity & Economy

b) Capacity

- 5) 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

c) Efficiency

- 6) 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
- 7) Imidacloprid is used as.....
 - a) Herbicide

b) Fungicide

d) Apprisal

- c) Neonicotinoid insecticide d) Rodenticide
- 8) A molecule whose synthesis is being planned is called....

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	9) Which of the following is not useda) Carboryl	o) Metalaxyl				
	c) Thiopental methyl	d) Chiorothaionii				
	10) Synthon is a Speciesa) Chargedc) Charged as well as neutral	b) Neutral d) None of these				
	11) A species which is chemically e	uivalent to synthons are called				
	as					
		b) Synthetic equivalent				
	c) Regent	d) Product				
	12) Chlorothalonil is used as					
	,	b) Insectiside				
	c) Fungicide	ל) Rotenticide				
	13) Rogar is also called as					
		o) Diazinon				
	c) Dimethoate	d) Malathion				
	14) Diethyl amine and acetoacetic acid is the starting material used for preparation of					
		b) Malathion				
	c) Phosphamidon	d) Chloropyriphos				
	SECTIO	DN – II				
a)	Describe batch and contaminates cry	-				
b)	Write synthesis, properties, uses, mode of action and environmental fate of thiopental methyl.					
a)	Define disconnection. Explain different types of disconnections.					
b)	Discuss the functions of Marketing manager					
a)	Write synthesis, mode of action, environmental fate and applications of thiaomethoxam.					
b)	Write synthesis and unit process of phosphamedon.					
0)	SECTIO					
a) b) c)	Explain gas absorption in towers Describe training methods of R and D Write note on agrograde sulphur.					
a)	Describe steam distillation of zoetropes.					

b) Target molecule

a) Reagent

Q2

Q3

Q4

Q5

Q6

- Define synthon, synthetic equivalent, FGI and Target molecule. Write note on ISI and ASTM specifications. b) 05 04
 - C)

07

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05 05 04

05

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

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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 14 alternative. Erysiphe causes the disease _____.
 - a) Powdery mildews
 - b) Downy mildews
 - c) Covered smut d) Late blight of potato
 - 2) Macrocyclic 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 d) Peziza b) Utilago c) Cystopus a) Puccinia
 - Fungus Alternaria solani belongs to class
 - a) Ascomycetes b) Deuteromycetes
 - c) Schizomycetes d) Oomvcetes
 - 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

7)	Wilt	disease	of	tomato	is	caused	by
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- a) Aspergillus b) Puccinia
- c) Cercospora d) Fusarium
- The name 'smut diseases' is given to those produced by Ustilago because _____.
 - a) Its mycelium is black in colour
 - b) It parasitizes cereals
 - c) The host becomes completely black
 - d) The fungus produces black sooty spore masses

White rust of crucifers is a pseudo-rust because _____

- a) The disease is not caused by basidiomycetours members
- b) The colour of the pustule is t red
- c) The disease is seen on crucifers
- d) The disease is not seen on wheat
- 10) Anthracnose of mango is caused by _____.
 - a) Pythium b) Alternaria
 - c) Collectotrichum d) Fusarium
- 11) Downy mildews are caused by the members of _____.
 - a) Erysiphales b) Taphrinales
 - c) Ustilaginales d) Peronosporales
- 12) The rusts are caused by ____
 - a) Ustilaginales b) Peronosporales
 - c) Uredinales d) Erysiphales
- Which of the following diseases is caused by a fungus _____.
 - a) Cholera b) Rust of wheat
 - c) T. B. d) Tetanus
- 14) Phytopathology is the study of _____.
 - a) Algae b) Fungi
 - c) Plant diseases d) Pteridophytes

SECTION-II

- Q.2 A) Describe the biology, nature of damage and control measure of 07 powdery mildew of Bhendi.
 - B) Explain any two diseases in Chrysanthemum studied by you; 07 with respect to causal organism, symptoms & control measures.
- Q3 A) Comment up on following diseases with respect to causal 07 organism, symptoms & control measures.
 - 1) Powdery mildew of Sisso
 - 2) Seeding blights of Lacuna
 - B) Explain leaf spot disease in Chilies; with respect to causal organism, symptoms & control measures.07

Q4	A) B)	Give details of Brown rot (storage) disease of Pomegranate; with respect to causal organism, disease cycle, symptoms & control measures. Comment up on foliage disease and fruit storage disease of Ber.	07 07
		SECTION - III	
Q5	A)	Write down the nature of damage caused by 'black scurf of tubers' disease of Potato.	05
	B)	Write down the symptoms and control measures of Downy mildews.	05
	C)	Enlist any four diseases of vegetable crop along with their causal organism.	04
Q6	A)	Write down causal organism and symptoms of 'Leaf sport' in sugar beet.	05
	B)	Write down causal organism and control measures of 'Asterina disease' in Santalum.	05
	C)	Enlist any four diseases of ornamental plants along with their causal organism.	04
Q7	A) B) C)	Write down general symptoms of fungal diseases. Write down symptoms of black spot diseases on Guava. Enlist any four diseases of forest trees along with their causal organism.	05 05 04