MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester	: **V (New)**	**Term**	: **I**	**Academic Year**	: **2013-14**
Course No.	: PATH 354	**Title**	: **Diseases of Horticultural Crops and their Management**		
Credits	: 3(2+1)				
Day & Date	: Monday, 21.10.2013	**Time**	: 14.00 to 17.00	**Total Marks**	: **80**

Note :
1. Solve **ANY EIGHT** questions from **SECTION "A".**
2. All questions from **SECTION "B"** are compulsory.
3. All questions carry equal marks.
4. Draw neat diagrams wherever necessary.

SECTION "A"

Q.1 Enlist any five important diseases of potato and describe in detail about late blight of potato.

Q.2 Describe in brief about the Purple blotch of Onion.

Q.3 Write the causal organism, symptoms, etiology and management strategies of panama wilt of banana.

Q.4 Describe the symptoms, etiology, perpetuation and control measures of powdery mildew of rose.

Q.5 What are the types of mango malformation and write the causal nature of flowering parasite with control measures.

Q.6 Describe the symptoms of anthracnose of bean with perpetuation of pathogen and management.

Q.7 Justify oily spots of pomegranate causes the qualitative and quantitative losses and write the control measures to be adopted.

Q.8 What are the characteristic symptoms of dieback of chilli with perpetuation of pathogen and its management?

Q.9 Enlist any five important diseases of grape and describe in detail about downy mildew of grape.

Q.10 Write short notes: (Any Two)

1) Yellow vein mosaic of okra
2) Black rot of crucifers
3) Rust of coffee
4) Foot rot of betelvine

SECTION "B"

Q.11 Fill in the blanks.

1) Black heart of potato aggravate at temp above_____ °C.
2) The fungicide Metalaxyl MZ is effective against diseases caused by _____.
3) Phytoplasmal disease in brinjal caused due to _____.
4) Irish famine is related to epidemic of _____.
5) Red onions are disease resistant due to presence of _____chemical.

(P.T.O.)

Q.9 a) Describe in detail about downy mildew of cucurbits.

b) Write in detail about late blight of potato.

Q.10 a) Write symptoms and transmission of papaya leaf curl and papaya ring spot virus disease.

b) Enlist diseases of Aster and Marigold and describe in detail powdery mildew of Marigold.

SECTION "B"

Q.11 State True or False.

1) Fruit canker of guava is caused by *Xanthomonas campestris pv. citri.*
2) Pink disease of mango is caused by *Botrydiplodia theobromae.*
3) Infectious cholorosis disease of banana is bacterial disease.
4) Grape fan leaf virus is transmitted by vector nematode.
5) Cross protection phenomenon is useful in management of viral diseases.
6) Citrus exocortis is viral disease.
7) *Agrobacterium tumefaciens* causes crown gall in apple.
8) *Alternaria dianthi* causes wilt of gladiolus.

Q.12 Match the pairs.

"A"	"B"
1) Loranthus of mango	a) *Trichothecium roseum*
2) Black leaf spot of ber	b) Fruit canker in guava
3) *Pestalotiopsis psidii*	c) Partial stem parasite
4) Black heart of potato	d) *Leveillula taurica*
5) Fruit rot of custard apple	e) *Urocystis cepulae*
6) Onion smut	f) Deficiency of oxygen
7) Powdery mildew of chilli	g) Zn deficiency
8) Mottling in citrus	h) *Isoriopsis indica var. ziziphi*
	i) *Erysiphe cichoracearum*

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester	: **V (New)**	**Term**	: **I**	**Academic Year**	: **2012-13**
Course No.	: PATH 354	**Title**	: **Diseases of Horticultural Crops and their Management**		
Credits	: 3(2+1)				
Day & Date	: Monday, 22.10.2012	**Time**	: 14.00 to 17.00	**Total Marks**	: **80**

Note :
1. Solve **ANY EIGHT** questions from **SECTION "A".**
2. All questions from **SECTION "B"** are compulsory.
3. All questions carry equal marks.
4. Draw neat diagrams wherever necessary.

SECTION "A"

Q.1 a) Enlist any five important diseases of citrus and describe in short about citrus canker.

b) Describe symptoms, causal organism and management strategies for Sigatoka disease of banana.

Q.2 a) Give detailed account of causal organism, symptoms, epidemiology and management of downy mildew of grape.

b) Write causal organism, symptoms and management for powdery mildew of mango.

Q.3 a) Describe in detail about the yellow vein mosaic of okra.

b) Write in detail about Cadang-cadang disease of coconut.

Q.4 Give in short symptoms, causal organism, perpetuation and management of following diseases. (Any Two)

1) Oily spot of Pomegranate
2) White rust of crucifers
3) Powdery mildew of rose

Q.5 a) Enlist any five importance diseases of tomato and describe symptoms and management of early blight of tomato.

b) Write in detail about purple blotch of onion.

Q.6 Describe symptoms, causal organism and management of following diseases. (Any Two)

1) Phomopsis blight of brinjal
2) Anthracnose of chilli
3) Rust of coffee

Q.7 Write down diagnostic symptoms and causal organism of following diseases. (Any Four)

1) Rust of Jasmine
2) Anthracnose of beans
3) Wilt disease of betelvine
4) Neck and bulb rot of garlic
5) Wilt disease of guava
6) Leaf spot of chrysanthemum

Q.8 a) Describe in detail about fire blight of apple.

b) Write in detail about Koleroga disease of arecanut.

(P.T.O.)

SECTION "B"

Q.11 State True or False.

1) *Xanthomonas campetris* pv. *campestris* is seed borne in nature.
2) *Streptomyces* scabies is gram positive bacterium.
3) Cadang cada disease of coconut is caused by viroid.
4) Red rust of tea is an algal disease.
5) *Alternaria dianthi* causes wilt of gladiolus.
6) Powdery mildew of chilli is caused by *Erysiphe capsici*.
7) Fruit drop of sapota is severe during winter period.
8) Guava canker is a bacterial disease.

Q.12 Match the pairs.

"A"	"B"
1) Wilt of tomato	a) *Alternaria tagetica*
2) Anthracnose of cucurbits	b) *Oidium piperis*
3) Anthracnose of guava	c) *Trichothecium roseum*
4) Onion smut	d) *Cerotelium fici*
5) Leaf spot of marigold	e) *Urocystis cepulae*
6) Fig rust	f) *Glomerella psidii*
7) Fruit rot of custard apple	g) *Colletotrichum lagenarium*
8) Powdery mildew of betelvine	h) *Fusarium oxysporum* f.sp.*lycopersici*

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MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester	: **V (New)**	**Term**	: **I**	**Academic Year**	: **2011-12**
Course No.	: PATH 354	**Title**	: **Diseases of Horticultural Crops and their Management**		
Credits	: 3(2+1)				
Day & Date	: Tuesday, 20.09.2011	**Time**	: 14.00 to 17.00	**Total Marks**	: **80**

Note :
1. Solve **ANY EIGHT** questions from **SECTION "A".**
2. All questions from **SECTION "B"** are compulsory.
3. All questions carry equal marks.
4. Draw neat diagrams wherever necessary.

SECTION "A"

Q.1 a) Describe cause, symptoms and management of apple scab.
b) Give host range of : 1) *Pseudomonas solanocearum*
2) *Colletotrichum gloeosporioides*

Q.2 a) Describe symptoms and control measures of oily spot of pomegranate.
b) State causal organisms of diseases of rose.

Q.3 a) Write symptoms and management of sigatoka disease of banana.
b) Describe management practices for control of anthracnose of mango.

Q.4 a) Describe causes and management of black heart of potato.
b) Write a note on *Fusarium* wilt of carnetion.

Q.5 a) Describe symptoms of white rust of cruciferous crops.
b) Write symptoms and transmission of papaya leaf curl and papaya ring spot.

6 a) State cause and describe symptoms of root wilt of coconut.
b) Write control measures of onion smudge disease.

7 a) Describe symptoms of downy mildew of grape.
b) Write disease cycle and control measures of *Phomopsis* blight of brinjal.

8 Write the mode of perpetuation of the following diseases.
1) Kole roga of areca nut
2) Die back of cashew
3) Chilli anthracnose
4) Coffee rust

9 Write short notes on (Any Two)
1) Powdery mildew of ber
2) Jasmine rust
3) Anthracnose of beans

Q.10 Write mode of transmission and control measures of the following (Any Two)
1) Bunchy top of banana
2) Yellow vein mosaic of okra
3) Citrus tristiza

(P.T.O.)

6) Fruit canker of guava is caused by *Xanthomonas campestries pv. Citri*.
7) Anthracnose of bean is managed by seed treatment with carbendazim.
8) Hot water seed treatment is found ineffective for control of Phomopsis blight of Brinjal.
9) Gemini virus is responsible for leaf curl of tomato.
10) 'Pusa Ratna' is a resistant variety of okra for yellow vein mosaic.

Q.9 Fill in the blanks.

1) The incidence of mango malformation is reduced by spraying_____during October.
2) Red Sultana is highly resistant variety of _____ for powdery mildew.
3) In India Citrus canker was reported first from_____state in 1940.
4) Ring spot of Papaya is transmitted by _____.
5) White rust of crucifer is caused by_____.
6) Banana mosaic was first reported in_____during 1929.
7) Infection of fire blight causing bacteria in apple takes place through _____ natural opening.
8) Fig rust is incited by_____.
9) Kolerola of areca nut can be controlled by root feeding with_____.
10) _____ disease of potato is caused due to poor ventilation in storage.

Q.10 Match the pairs.

"A"	"B"
1) Loranthus of mango	a) Viroid
2) Grape vine fan leaf virus	b) Fijji
3) Citrus exocortis	c) *Erysiphe chichoracearum*
4) Bunchy top	d) *Psedomonospora cubensis*
5) Downy mildew of cabbage	e) *Leveillula taurica*
6) Powdery mildew of gerbera	f) *Isoriopsis indica var ziziphi*
7) Black leaf spot of ber	g) DNA virus
8) Yellow vein mosaic of ladies finger	h) Partial stem parasite
9) Downey mildew of cucurbits	i) *Xiphinema index*
10) Powdery mildew of Marigold	j) *Peronospora parasitica*

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MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester	: V (New)	**Term**	: I	**Academic Year**	: 2010-11
Course No.	: PATH 354	**Title**	: Diseases of Horticultural Crops and their Management		
Credits	: 3(2+1)				
Day & Date	: Monday, 18.10.2010	**Time**	: 14.00 to 17.00	**Total Marks**	: 80

Note :
1. Solve **ANY FIVE** questions from **SECTION "A".**
2. All questions from **SECTION "B"** are compulsory.
3. All questions carry equal marks.
4. Draw neat diagrams wherever necessary.

SECTION "A"

Q.1 Enlist the important diseases of grape along with causal organisms, with symptoms and management strategies of downy mildew.

Q.2 Write down causal organism, symptoms, etiology, perpetuation, epidemiology and management of Oily spot of Pomegranate.

Q.3 Enlist the diseases of banana, write down the symptoms and management of 'Sigatoka of Banana'.

Q.4 Write down causal organisms, etiology, perpetuation, epidemiology and management of purple blotch of onion.

Q.5 State the symptoms of following diseases.

1) Anthracnose of mango 2) Citrus canker 3) Ring spot of papaya
4) Yellow vein mosaic of lady's finger

Q.6 Write down the management of following diseases.

1) Rust of Jasmine 2) Alternaria leaf spot of carnation
3) Powdery mildew of Gerbera 4) Wilt of gladiolus

Q.7 Write short notes on (Any Two)

1) Anthracnose of Chilli
2) Bacterial wilt of Brinjal
3) Late blight of Potato

SECTION "B"

Q.8 State True or False.

1) Dieback of mango is caused by *Botryodiplodia theobromae.*
2) Bacterial canker of grape is caused by *Pseudomonas campestries pv. Viticola*
3) Genus *Phytophthora* is responsible to cause the gummosis of citrus.
4) Cigar end rot of Banana is a bacterial disease.
5) Papaya mosaic is a aphid transmitted virus disease.

(P.T.O.)

6) _____ a bacteria causes black rot a cabbage.

7) Anthracnose of grape is caused by _____.

8) _____ a pathogenic bacterial causes wilt in solanecious crops.

Q.12 Match the pairs.

"A"	"B"
1) Coffee rust	a) Pomogranate
2) Blotch of chrysanthemum	b) Hemilia Vastatrix
3) Loranthus	c) Onion
4) *Alternaria Porii*	d) *Septroria sp.*
5) *X. axonopodis pv punicae*	e) Mango
6) *Myzus persacae*	f) *Streptomyces scabies*
7) Blossom end rot of tomato	g) Okra
8) Potato Scab	h) Difficiency

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MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester	: **V (New)**	**Term**	: **I**	**Academic Year**	: **2013-14**
Course No.	: PATH 354	**Title**	: **Diseases of Horticultural Crops and their Management**		
Credits	: 3(2+1)				
Day & Date	: Monday, 21.10.2013	**Time**	: 14.00 to 17.00	**Total Marks**	: **80**

Note : 1. Solve **ANY EIGHT** questions from **SECTION "A".**
2. All questions from **SECTION "B"** are compulsory.
3. All questions carry equal marks.
4. Draw neat diagrams wherever necessary.

SECTION "A"

Q.1 Enlist any five important diseases of potato and describe in detail about late blight of potato.

Q.2 Describe in brief about the Purple blotch of Onion.

Q.3 Write the causal organism, symptoms, etiology and management strategies of panama wilt of banana.

Q.4 Describe the symptoms, etiology, perpetuation and control measures of powdery mildew of rose.

Q.5 What are the types of mango malformation and write the causal nature of flowering parasite with control measures.

Q.6 Describe the symptoms of anthracnose of bean with perpetuation of pathogen and management.

Q.7 Justify oily spots of pomegranate causes the qualitative and quantitative losses and write the control measures to be adopted.

Q.8 What are the characteristic symptoms of dieback of chilli with perpetuation of pathogen and its management?

Q.9 Enlist any five important diseases of grape and describe in detail about downy mildew of grape.

Q.10 Write short notes: (Any Two)

1) Yellow vein mosaic of okra
2) Black rot of crucifers
3) Rust of coffee
4) Foot rot of betelvine

SECTION "B"

Q.11 Fill in the blanks.

1) Black heart of potato aggravate at temp above_____ °C.
2) The fungicide Metalaxyl MZ is effective against diseases caused by _____.
3) Phytoplasmal disease in brinjal caused due to _____.
4) Irish famine is related to epidemic of _____.
5) Red onions are disease resistant due to presence of _____chemical.

(P.T.O.)

6) _____ a bacteria causes black rot a cabbage.

7) Anthracnose of grape is caused by _____.

8) _____ a pathogenic bacterial causes wilt in solanecious crops.

Q.12 Match the pairs.

"A"	"B"
1) Coffee rust	a) Pomogranate
2) Blotch of chrysanthemum	b) Hemilia Vastatrix
3) Loranthus	c) Onion
4) *Alternaria Porii*	d) *Septroria sp.*
5) *X. axonopodis pv punicae*	e) Mango
6) *Myzus persacae*	f) *Streptomyces scabies*
7) Blossom end rot of tomato	g) Okra
8) Potato Scab	h) Difficiency

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MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION
B.Sc. (Agri.)

Semester	: **V (New)**	**Term**	: **I**	**Academic Year**	: **2015-16**
Course No.	: PATH 354	**Title**	: **Diseases of Horticultural Crops and their Management**		
Credits	: 3(2+1)				
Day & Date	: Wednesday, 21.10.2015	**Time**	: 14.00 to 17.00	**Total Marks**	: **80**

Note : 1. Solve **ANY EIGHT** questions from **SECTION "A".**
2. All questions from **SECTION "B"** are compulsory.
3. All questions carry equal marks.
4. Draw neat diagrams wherever necessary.

SECTION "A"

Q.1 Enlist any five important diseases of grape and describe in detail about downy mildew.

Q.2 Describe the symptoms and control measures for black rot of crucifers.

Q.3 What are the types of mango malformation and write the causal nature of flowering parasite with control measures.

Q.4 Describe the symptoms, etiology perpetuation and control measures for powdery mildew of rose.

Q.5 Write the casual organism, symptoms, etiology, and management strategies of panama wilt of banana.

Q.6 Describe in brief about the yellow vein mosaic of okra.

Q.7 Justify oily spot of pomegranate causes the qualitative and quantitative losses and write the control measures to be adopted.

Q.8 What are the characteristic symptoms of dieback of chilli with perpetuation of pathogen and management of disease?

Q.9 Enlist any five important diseases of potato and describe in detail about late blight.

Q.10 Write short notes on (Any two).

1) Foot rot of betelvine
2) Rust of coffee
3) Anthracnose of bean
4) Purple blotch of onion

SECTION "B"

Q.11 Fill in the blanks.

1) Phytoplasmal disease in brinjal is transmitted by _____.
2) The fungicide Metalaxyl MZ is effective against _____ of grape.
3) _____ is a causal organism of black rot of cabbage.
4) Irish famine is related to epidemic of _____.
5) _____ a pathogenic bacteria causes wilt in solanecious crops.
6) Red onions are disease resistant due to presence of chemical_____.
7) Anthracnose of grape is caused by _____.
8) Black heart of potato aggravate at temp above _____ ^{0}C.

(P.T.O.)

Q.12 Match the following pairs.

"A"		"B"	
1)	Loranthus	a)	Onion
2)	*X. axonopodispv punicae*	b)	*Hemiliavastatrix*
3)	Coffee rust	c)	Pomegranate
4)	*Alternaria porii*	d)	*Septoria sp.*
5)	Blotch of chrysanthemum	e)	Okra
6)	Potato scab	f)	*Streptomyces scabies*
7)	*Citrus tristeza*	g)	Mango
8)	*Bemicia tabici*	h)	Stem pitting

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