MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester	: **IV (New)**	**Term**	: **II**	**Academic Year**	: **2015-16**
Course No.	: PATH 243	**Title**	: **Diseases of Field Crops and Their Management**		
Credits	: 3 (2+1)				
Day & Date	: Monday, 25.04.2016	**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 the important diseases of rice and describe the symptoms and management strategies for bacterial blight of rice.

b) Write the management practices of following diseases.

1) Powdery mildew of green gram

2) Red rot of sugarcane.

Q.2 Write the symptoms for following diseases (Any four).

1) Downey mildew of sunflower
2) Ergot of bajara
3) Tikka of groundnut
4) Rust of linseed
5) Wilt of chick pea

Q.3 Enlist different diseases of sorghum and write in brief about the symptoms and management of loose smut.

Q.4 a) Enlist major diseases of soybean along with causal organism. Enumerate the symptoms and management strategies for rust of soybean.

b) Write in detail about leaf spot of turmeric restricted to following point (Any four).

1) Causal organism
2) Symptoms
3) Etiology
4) Perpetuation
5) Control

Q.5 a) Write symptoms, causal organism, host and transmission of tobacco mosaic and leaf curl of tobacco.

b) Enlist diseases of safflower and describe in short about wilt of safflower restricted to following points (Any four)

1) Causal organism
2) Symptoms
3) Etiology
4) Perpetuation
5) Control measures

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Q.6 Write symptoms, transmission, causal organism and management of following diseases (Any two).

1) Bud necrosis of groundnut
2) Grassy shoot of sugarcane
3) Sterility mosaic of red gram

Q.7 a) Write down the diseases of caster and write in brief about symptoms and control measures of leaf blight.

b) Describe symptoms and etiology of red rot of sugarcane.

Q.8 Write in brief about following with examples

1) Hot water treatment
2) Solar heat treatment
3) Brine treatment
4) Fungicidal seed treatment

Q.9 Write down the diseases of cotton and enumerate the symptoms and control measures for angular leaf spot of cotton.

Q.10 Enlist different diseases of wheat and describe disease cycle of stem rust of wheat in India.

SECTION "B"

Q.11 Match the following pairs.

"A"	"B"
1) Alternate host of bajra rust	a) Sulphur dusting
2) Sterility mosaic	b) Brinjal
3) Phyllody	c) Tobacco
4) TMV	d) Red gram
5) Whip smut of sugarcane	e) Sesamum
6) Kresek stage	f) Tobacco
7) Powdery mildew of sesamum	g) Rice
8) Broom rape (root parasite)	h) *Ustilago scitamini*

Q.12 State True or False.

1) Blast of ragi is caused by *Puricularia grisea.*
2) *Colletotrichum species* infecting ginger produces acervulus with setae.
3) Grassy shoot of sugarcane is caused by fungi
4) Autoecious rust required only one host to complete their life cycle.
5) Reddening in cotton can be managed by $MgSO_4$ spray and proper drainage.
6) 'Kresek' phase of bacterial blight occurs in cotton.
7) Alternate host for black stem rust of wheat is barbery.
8) Anthracnose of black gram is caused by *Colletotrichum lindemuthianum.*

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