

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE  
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester	: IV (Old)	Term	: II	Academic Year	: 2018-19
Course No.	: PATH 243	Title	: Diseases of Field Crops and Their		
Credits	: 3 (2+1)		Management		
Day & Date	: Thursday, 02.05.2019	Time	: 09.00 to 12.00	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 major diseases of soybean caused by fungi, enumerate the symptoms and management strategies for rust of soybean.  
b) Describe in detail whip smut of sugarcane in respect of symptoms, etiology and management.
- Q.2 a) Enlist any three important diseases of rice. Describe symptoms and management strategies for bacterial leaf blight of rice.  
b) Write in detail favorable conditions, spread survival and management of yellow mosaic disease of green gram.
- Q.3 a) Write in brief differential characteristics of *Cercospora arachidicola* and *Cercospora personatum*.  
b) Describe in short symptoms and perpetuation of *Puccinia helianthi* and *Alternaria helianthi*.
- Q.4 Write short notes (Any two).  
a) Blast of ragi  
b) Striga  
c) Broomrape  
d) Anthracnose of cotton
- Q.5 a) Describe in brief differential characters of all smut causing fungi in sorghum.  
b) Describe in brief sterility mosaic disease of pigeon pea in relation with cause, symptoms and management practices.
- Q.6 a) Describe in brief cause and symptoms of downy mildew causing fungi in bajra.  
b) Write in brief causal organism, symptoms, transmission and management of necrosis of sunflower.
- Q.7 Write cause, symptoms and management for following diseases.  
a) Root rot of bengal gram  
b) Leaf blotch of turmeric
- Q.8 Describe in detail life cycle of *Puccinia graminis tritici*

(P.T.O.)

Q.9 Give in short, the cause symptoms and management for following diseases.

- a) Angular leaf spot of cotton.                      b) Wilt of safflower.

Q.10 Write primary and secondary source of infection of following diseases.

- a) Downy mildew of maize                      b) Ergot of bajra  
c) Tikka of groundnut                      d) Rust of sunflower

### SECTION "B"

Q.11 Match the following pairs.

'A'

- 1) Cleistothecium
- 2) Phyllody of sesamum
- 3) Red gram wilt
- 4) Linseed rust
- 5) Wheat rust
- 6) Rust of bajra
- 7) Ascospores in stroma
- 8) Leaf blight of castor

'B'

- a) *Orostius albicinctus*
- b) *Erysiphe polygoni*
- c) Autoecious
- d) Heteroecious
- e) BSMR-736
- f) Ergot fungi
- g) *Alternaria ricini*
- h) Brinjal

Q.12 Fill in the blanks.

- 1) Sterility mosaic disease in pigeon pea is transmitted by \_\_\_\_\_.
- 2) Leaf curl of tobacco is caused by \_\_\_\_\_.
- 3) Alternate host of black stem rust of wheat is \_\_\_\_\_.
- 4) Downy mildew effectively controls by \_\_\_\_\_.
- 5) Leaf blotch of garlic caused by \_\_\_\_\_.
- 6) Extreme sensitivity to 2-4-D occurs in \_\_\_\_\_ crop.
- 7) *Fusarium oxysporum* perpetuate in soil in the form of \_\_\_\_\_.
- 8) Wheat bunt is caused by \_\_\_\_\_.

