

**MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE**  
**SEMESTER END EXAMINATION**

**B.Sc. (Agri.)**

<b>Semester</b> : IV (Old)	<b>Term</b> : II	<b>Academic Year</b> : 2017-18
<b>Course No.</b> : PATH 243	<b>Title</b> : Diseases of Field Crops and Their	
<b>Credits</b> : 3 (2+1)	<b>Management</b>	
<b>Day &amp; Date</b> : Wednesday, 25.04.2018	<b>Time</b> : 14.00 to 17.00	<b>Total Marks</b> : 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 Write symptoms, causes and management of the following (Any Two).
- a) Wilt of red gram
  - b) Wilt of bengal gram
  - c) Wilt of safflower
- Q.2 Give in short the causes, symptoms and management of following.
- a) Angular leaf spot of cotton
  - b) Tikka disease of groundnut
- Q.3 Write causal organism, transmission and management of following disease.
- a) Bud necrosis of groundnut
  - b) Grassy shoot of sugarcane
- Q.4
- a) Write in brief about black stem rust of wheat.
  - b) Enlist important diseases of rice and describe the symptoms and management strategies for bacterial blight.
- Q.5 Write in brief about following.
- a) Hot water treatment
  - b) Solar heat treatment
  - c) Fungicidal seed treatment
  - d) Brine water treatment
- Q.6 Write short notes (Any Two).
- a) Powdery mildew of black gram
  - b) Leaf blotch of turmeric
  - c) Ergot of bajra
- Q.7
- a) Enlist diseases of soybean. Enumerate symptoms and management strategies for rust of soybean.
  - b) Describe the symptoms and management of whip smut of sugarcane.
- Q.8
- a) Describe in detail about sesamum phyllody.
  - b) Enlist important ear head diseases of sorghum with causal pathogen and write in detail about grain smut of sorghum.
- Q.9 Write primary and secondary source of infection of following diseases.
- a) Downy mildew of maize
  - b) Leaf blight of safflower
  - c) *Alternaria* leaf spot of castor
  - d) Anthracnose of cotton

**(P.T.O.)**

- Q.10 a) Write transmission, symptoms and management of pigeon pea sterility mosaic.  
b) Write in brief about the symptoms and management of downy mildew of sunflower.

**SECTION "B"**

Q.11 State True or False.

- 1) Long smut of sorghum is internally seed borne.
- 2) Asci without ascocarp are produced in *Taphrina* infecting turmeric.
- 3) Reddening in cotton can be managed by  $MgSO_4$  spray and proper drainage.
- 4) BPMR-145 is powdery mildew resistant variety of mung bean.
- 5) Evident symptoms of charcoal rot of sorghum are lodging and poor grain filling.
- 6) *Glomerella tucumanensis* is imperfect state of *Colletotrichum falcatum*.
- 7) Brinjal is alternate host of bajra rust.
- 8) Leaf curl of tobacco is transmitted by aphids.

Q.12 Fill in the blanks.

- 1) Broom rape (*Orobancha spp.*) is a flowering root parasite of \_\_\_\_\_.
- 2) \_\_\_\_\_ causes false smut disease in rice.
- 3) Yellow rust of wheat is caused by \_\_\_\_\_.
- 4) Yellow mosaic of green gram is spread through \_\_\_\_\_.
- 5) *Botrytis squamosa* causes \_\_\_\_\_ disease of garlic.
- 6) Wilt of linseed is caused by \_\_\_\_\_.
- 7) The sexual spore of ergot fungi is \_\_\_\_\_.
- 8) Secondary spread of ragi blast conidia occurs by \_\_\_\_\_.

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