

**M.Sc. (Ag.) Examination, 2018**  
**Semester-II**  
**Plant Pathology**  
**Course- PPC-505**  
**(Diseases of Field Crops and their Management)**

**Time: Three Hours**

**Full Marks: 50**

*Questions are of value as indicated in the margin*

Answer **any five** questions

1. Name two diseases along with causal organism each due to biotrophs and necrotrophs. In the era of molecular plant pathology, what is the need to classify diseases according to number of life cycles within a crop cycle? Justify the name and write about two important symptoms of false smut of rice. 3+3+4=10
  2. Prepare a list of foliar diseases of rice with causal organisms. Write about the symptoms, aetiology, predisposition and management of blast or brown spot disease of rice. 3+2+2+1+2=10
  3. Distinguish between smut and bunt disease in relation to symptoms, aetiology and management in one crop which is affected by both. Explain the Indian black rust rules for outbreak of this disease. 7+3=10
  4. Write about the importance, symptoms, C.O. and effective management of any two of the following diseases 5×2=10
    - (a) Green ear disease of bajra
    - (b) *Ascochyta* blight of pea
    - (c) Club root of mustard
    - (d) White rust of mustard
  5. (a) “Stalk rot of maize develops due to infection of both fungal and bacterial pathogen”– Justify the statement. Describe the symptoms and management bacterial stalk rot of maize.  
  
(b) Explain the aetiology of ratoon stunting of sugarcane. (3+5)+2=10
  6. Describe in detail about Rice tungro virus disease. 10
  7. (a) Explain the importance of stem rot of jute. Write the symptoms and management about the same.  
  
(b) Elaborate the symptoms, transmission and management of groundnut rosette. 6+4=10
  8. Write short notes on **any four** of the following: 2.5×4=10
    - (a) Aetiology of red rot of sugarcane
    - (b) Transmission and management of pigeon pea sterility mosaic
    - (c) Rust of groundnut-symptoms and aetiology
    - (d) Symptoms and management of BLS
    - (e) Ergot of bajra
    - (f) Symptoms and management of wilt of chickpea
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