M.Sc.(Ag.) Examination, 2019
Semester-II
Plant Pathology
Course : PPC-505
(Disease of field crops and their management)

Time : 3 Hours **Full Marks : 50**

Questions are of value as indicated in the margin.

Answer **any five** questions

1. Define powdery mildew and downy mildew. Write at least five genera of fungi causing powdery mildew and downy mildew in different crops with their specific identifying characters. Describe the symptoms, aetiology, predisposing factors, disease cycle, and management of downy mildew disease of sorghum. 2+3+5=10
2. Distinguish between loose smut and covered smut. How the loose and covered smuts are formed in cereals crops. Write the pathogens developing loose and covered smuts in crops. Describe the predisposing factors for disease development, and management of loose and covered smuts. 2+2+2+4=10
3. Write short notes (**any four**) : 4×2.5=10
   i)Symptoms and aetiology of black shunk of tobacco
   ii) Aetiology and management of bacterial pustule of soybean
   iii) Symptom, etiology and management of Khaira Diseases of rice
   iv) Symptom, etiology and management of Pigeon pea sterility mosaic
   v) Insects and mites as causal agent of plant diseases
   vi) Cotton stenosis
   vii) Symptoms, aetiology and management of Sugarcane ratoon stunting
4. What do you mean by "Tungro" of rice? How the symptoms develops in a susceptible cultivar? Write the aetiology, loss, distribution, interaction between pathogen and vectors, predisposing factors and management of the rice tungro disease. 1+3+6=10
5. What do you mean by race, biovar and biotype of bacteria? Distinguish between BLB and BLS on the basis of their symptoms, etiology, yield loss, dominant races, host resistance and management. 2+8=10
6. Give specific answers of the following (**any five**) : 5×2=10
   i) Why the bacterial disease symptoms in cotton are angular in shape?
   ii) Why 'tundu' is more dangerous than earcockle of wheat?
   iii) Mechanism involved in ergot formation
   iv) Types of spores formed by the black rust pathogen in wheat
   v) Acervulus forming fungi and symptoms
   vi) Mechanisms involved in root knot formation
   vii) Mechanisms involved bacterial wilt diseases
7. Describe symptoms, etiology disease cycle pattern and management of ufra and white tip disease of rice. 5+5=10

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