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 Barasat, Kolkata -700125

**Term End Examination 2024-2025****Programme – B.Sc.(Ag)-Hons-2021/B.Sc.(Ag)-Hons-2022****Course Name – Diseases of Field and Horticultural Crops and their Management-II****Course Code - CC-BAG673 (T)/CC-BAG673(T)****( Semester VI )****Full Marks : 50****Time : 2:0 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

**Group-A****(Multiple Choice Type Question)****1 x 20=20****1. Choose the correct alternative from the following :**

- (i) Which genus of the pathogen causes rust disease in wheat?
  - a) Puccinia
  - b) Rhizoctonia
  - c) Fusarium
  - d) Tilletia
- (ii) Karnal bunt in wheat is caused by which fungus?
  - a) Tilletia indica
  - b) Puccinia graminis
  - c) Bipolaris sorokiniana
  - d) Aspergillus niger
- (iii) Name the causal organism (teleomorph) of red rot disease in sugarcane.
  - a) Fusarium moniliforme
  - b) Ustilago scitaminea
  - c) Alternaria alternata
  - d) Glomerella tucumanensis
- (iv) Name the disease of sugarcane which is caused by a bacterium.
  - a) Red stripe
  - b) Grassy shoot
  - c) Smut
  - d) Ratoon stunt
- (v) Infer the insect vector that transmits grassy shoot disease in sugarcane.
  - a) Whitefly
  - b) Aphid
  - c) Leafhopper
  - d) Thrips
- (vi) Name the pathogen that is responsible for downy mildew in mustard.
  - a) Peronospora parasitica
  - b) Phytophthora brassicae
  - c) Fusarium solani
  - d) Pythium ultimum
- (vii) Recall the symptom that is associated with Ascochyta blight of gram?
  - a) Black streaks on stem
  - b) Brown sunken spots on pods
  - c) Wilting of entire plant
  - d) Powdery white patches on leaves
- (viii) Which pathogen causes powdery mildew in mango?
  - a) Oidium mangiferae
  - b) Colletotrichum gloeosporioides
  - c) Phytophthora palmivora
  - d) Fusarium moniliforme
- (ix) Infer the environmental condition that favors the development of powdery mildew of mango.

- a) High humidity and moderate temperature      b) Dry and hot weather  
c) Cold and wet conditions      d) Very low temperature
- (x) Choose the control method which is best for managing powdery mildew in mango.  
a) Spraying with sulfur-based fungicides      b) Application of potassium fertilizers  
c) Removing affected fruits      d) Using resistant varieties
- (xi) Infer the vector of mango malformation disease.  
a) *Myzus persicae*      b) *Aphis craccivora*  
c) *Aceria mangiferae*      d) *Pentalonia nigronervosa*
- (xii) Which pathogen causes citrus canker?  
a) *Xanthomonas axonopodis*      b) *Colletotrichum gloeosporioides*  
c) *Phytophthora citrophthora*      d) *Ralstonia solanacearum*
- (xiii) What is a common symptom of bacterial blight in cotton?  
a) Angular leaf spots with water-soaked lesions      b) White powdery patches  
c) Corky lesions on bolls      d) Yellow mottling of leaves
- (xiv) Anthracnose in grapes is caused by which pathogen?  
a) *Colletotrichum gloeosporioides*      b) *Guignardia bidwellii*  
c) *Plasmopara viticola*      d) *Erysiphe necator*
- (xv) Which pathogen causes apple scab?  
a) *Venturia inaequalis*      b) *Podosphaera leucotricha*  
c) *Erwinia amylovora*      d) *Agrobacterium tumefaciens*
- (xvi) Infer the weather condition that favours powdery mildew of apple.  
a) Hot and dry      b) Wet and cool  
c) Warm and humid      d) Cold and dry
- (xvii) Which pathogen causes late blight of potato?  
a) *Phytophthora infestans*      b) *Alternaria solani*  
c) *Pectobacterium carotovorum*      d) *Xanthomonas campestris*
- (xviii) Infer the insect vector of potato leaf roll virus?  
a) Aphids      b) Whiteflies  
c) Thrips      d) Mites
- (xix) Which pathogen causes downy mildew in cucurbits?  
a) *Pseudoperonospora cubensis*      b) *Alternaria solani*  
c) *Pectobacterium carotovorum*      d) *Xanthomonas campestris*
- (xx) Identify the best fungicide which is used to control downy mildew in cucurbits.  
a) Mancozeb      b) Carbendazim  
c) Metalaxyl      d) Chlorothalonil

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### Group-B

(Short Answer Type Questions)

2.5 x  
10=25

2. Discuss the management of malformation in mango. (2.5)
3. Describe the symptoms and causal organism of downy mildew of grapevine. (2.5)
4. Design suitable management approaches for viral diseases of potato. (2.5)
5. Describe the symptoms and causal organism of black stem rust of wheat. (2.5)
6. Infer the disease cycle and favourable conditions of loose smut pathogen of wheat. (2.5)
7. Describe the symptoms and name the causal organism of red rot disease of sugarcane. (2.5)
8. Describe the symptoms and causal organism of late blight of potato. (2.5)
9. Describe the symptoms and causal organism of downy mildew or powdery mildew of cucurbits. (2.5)
10. Compile the management practices of downy mildew and powdery mildew of pea. (2.5)
11. Develop suitable management strategies for karnal bunt disease of wheat. (2.5)

Design suitable management strategies for ratoon stunt disease of sugarcane. **OR** (2.5)

**Group-C**  
(Long Answer Type Questions) 5 x 1=5

12. Elaborate the symptoms, causal organism, disease cycle and management of mango malformation. (5)

Compile the symptoms, aetiology and management of loose smut disease of wheat. **OR** (5)

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