Gandhi Institute of Engineering and Technology University, Odisha, Gunupur
(GIET University)

B. Sc. (Ag.) (Fifth Semester - Regular) Examinations, November – 2025

PPT-314 – Diseases of Field & Horticultural Crops & their Mgt.-I

Time: 2 hrs | Maximum: 50 Marks

PART – A

Q.1. Fill in the blanks with suitable word. **(0.5 x 10 = 5 Marks)**

a. *Rhizoctonia solani* survives in _____ forming _____.
b. The causal organism of Bakane disease of rice _____ _____.
c. Spindle shaped spots on leaf lamina is found in which rice disease? _____
d. Scientific name of vector of Rice Grassy stunt is _____ _____.
e. Udbatta disease is caused by _____.
f. In pearl millet, ears are malformed into twisted green leafy structures due to _____ disease.
g. The secondary source of infection for stem blight of pigeon pea is through _____.
h. Chemical fungicide specifically used for smut pathogen is _____.
i. Bacterial wilt disease of Banana is often known as _____.
j. In 1890s, Coffee rust epidemics occurred in which country? _____.

Q. 2. Define (or) Explain the following in one or two sentences. **(1 x 5 = 5 Marks)**

a. Fruit rot of Brinjal
b. Irish Famine
c. Damping off of seedlings
d. Thanjavur wilt of coconut
e. Anthracnose disease of Beans.

Q3. Match the following **(0.5 x 10 = 5 Marks)**

Column – A		Column – B	
(a)	Rich men's disease	(i)	False smut of rice
(b)	Udbatta Disease	(ii)	Sexual stage
(c)	Coffee rust	(iii)	Bacterial Leaf blight of rice
(d)	Laxmi disease	(iv)	Rice blast
(e)	Kresek stage	(v)	Vegetative rust
(f)	Perfect stages of fungus	(vi)	Shot hole symptoms
(g)	Alternaria Leaf spot	(vii)	Vector transmission
(h)	Tobacco mosaic virus	(viii)	Target board appearance
(i)	Chilli Leaf curl	(ix)	Mechanical transmission
(j)	Cercospora leaf spot	(x)	Panicle looks likes Agarbatti

Q4. Write True or False against each statement **(0.5 x 10 = 5 Marks)**

a. Early leaf spot of groundnut appears after 35 days of sowing.

b. Reddish brown to dark brown with a bright yellow halo is associated with early leaf spot.

c. Flowers are susceptible to the infection of Ergot disease, only after stigma emergence.

d. High temperature and high soil moisture (water logging) favour the stalk rot of maize disease.

e. Large, cigar-shaped, gray-green to tan lesions is associated with SCLB disease of maize.

f. Growing resistant hybrids like DHM-1 is the recommended management practices for Leaf spot of maize.

g. Anthracnose of black gram can affect all aerial parts of the plants at only reproductive stage of crop growth.

h. Low temperature and high humidity favours the Cercospora leaf spot of green gram.

i. Blister blight is associated with tea.

j. Phomopsis fruit rot pathogen produces asexual fruiting body called pycnidium.

PART – B

Attempt *ANY FIVE* questions. All question carries equal marks (6 x 5 = 30 Marks)

5. Write in brief about the Irish famine. Enlist two bacterial and one phytoplasmal diseases of rice with its causal organism. Discuss about the causal agent, symptomology, epidemiology and management for Rice blast.

6. What are primary and secondary inoculum? Write the difference between Sheath blight and Sheath rot of rice?

7. Explain the difference between biotrophs and hemibiotrophs. Discuss in brief about the causal organisms, symptoms, disease cycle and management for leaf spot of maize.

8. Explain- all pathogens are parasites but all parasites are not pathogen. Discuss in brief about the causal organisms, symptoms, disease cycle and epidemiology for green ear disease of pearl millet.

9. Define inoculum and enlist different sources of primary inoculum of a disease. Distinguish between the early and late leaf spot of groundnut.

10. Difference between wilt physiological and fungal wilt. Write the causal organism, symptoms, disease cycle and management for Tobacco Mosaic Virus.

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