# A Question Bank

## for the Forest Pathology course, Forestry department, 3rd class.

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Spring semester, 2023

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**Define the following terms:**

Plant Disease

Plant pathology

Forest Pathology

Parasite

Parasitism

plant parasite

Biotrophs (Obligate parasites)

Necrotrophs (Nonobligate parasites)

Facultative saprophytes (hemibiotrophs, or semi-biotrophs)

Saprophytes

Virus

Viroid

Hemiparasitic plant

Dampingoff

Mycorrhizae

Leaf cast

**IMPORTANT NOTE:**

Please be noted that these examples of questions in the question bank are only meant to give you an idea about the types of questions you may have in the exam. Questioning other parts of the lecture is possible.

**Fill the following gaps (blanks):**

1. Infection of xylem vessels, interferes with …… to the crown of the plant.
2. The removal of food by a parasite from its host is called ……...
3. Saprophytes are the organisms which derive their nutrition from ……...
4. Most fungi have a filamentous vegetative body called a ……
5. ……. are small, low molecular weight ribonucleic acids (single strands of RNA) that can infect plant cells, replicate themselves, and cause disease.
6. …….. are specialized bacteria that are obligate parasites of plant phloem tissue and transmitting insects (vectors).
7. ……. belongs to the kingdom animalia and wormlike in appearance.
8. …… is an evergreen plant with distinctive forked branches and pairs of symmetrical evergreen leaves which parasite to the plants.
9. …….. is a type of parasitic higher plant which have little or no chlorophyll and no true roots so they depend entirely on their hosts for their existence.
10. Having mushroom bodies on the base of tree can indicate the presence of …….
11. Noninfectious diseases in trees come from …….. from which trees cannot escape.
12. The main components of disease triangle are ……, ……. and……..
13. The common macronutrients that plant needs are ……., ……. and …….
14. Water excess can affect the roots respiration which stop the exchanging of carbon dioxide they produce for oxygen from the air.
15. Fungi can penetrate and invasion the plants through three main methods……..., ……. and……..
16. The optimum temperature for fungal growth is between ……. to ……..° C.
17. The only thing viruses do within the host is to …….
18. The initial symptoms of most root diseases are similar, such as …… and ……, usually beginning in the upper branches.
19. The major root diseases of trees are caused by ……. that are saprobes on dead plant materials.
20. The causal agent of *Armillaria* root rot is ……..
21. The causal agent of *Annosum* root rot is ……..
22. Phytophthora root rot can infect or hosts ……..
23. The Primary causal agents of Phytophthora root rot are ……. and ……..
24. The causal agent of Oak leaf blister is ……..
25. Most cankers can be placed into three groups: ……., ……., and ……
26. The causal agent of Nectria canker is ……..
27. The causal agent of crown gall disease is ……..
28. To remove saprophytes on the collected symptoms it is requested to wash the samples with ……. Before incubation on PDA.

**Briefly answer the following question:**

Q/ What are the impacts (Damage) of Forest Diseases?

Q/ What are the main biotic (Infectious) causal agents for plant diseases?

Q/ What are the main Abiotic (Noninfectious) causal agents for plant diseases?

Q/ What are the most common and visible leaf symptoms?

Q/What are the most common root symptoms?

Q/ How the low temperature is damaging the plant?

Q/What does the term "chemical injury" in plant disease mean?

Q/ How water excess or flooding and poorly drained soils damage the plants?

Q/ How Bacteria can enter or infect the plant tissue and what is the main way to infect the plant?

Q/ What are the spreading or dissemination methods of pathogens in general.

Q/ What does the term "infectious" implies or means?

Q/ Draw a typical disease cycle of a hardwood leaf disease.

Q/ What are the three stages of dampingoff ?
Q/ what is the difference between the following terms:

1. Symptoms and signs
2. Atrophic symptoms and Hypertrophic symptoms

Q/ what are the main causes of wounds in plant?

Q: Being so small, how do bacteria cause disease in trees?

Q: What are the results of nematode feeding on the roots of plants? What will happen to the plant?

Q: What are the results of the virus infection on the plants?

Q: Why viruses are called (termed) systemic pathogens?

Q: Water is important in disseminating pathogens in three ways:

1.
2.
3.

Q: What are the stages of dampingoff in seedlings?

Q: What are the causal agents of Dampingoff?

Q: Write a proper control measure for damping off?

Q: How do mycorrhizal fungi play a role in the protection of tree roots from disease infection?

Q: What are the main symptoms of Armillaria root rot? describe it.

Q: Suggest proper control strategies for controlling Armillaria root rot disease.

Q: Prescribing proper control measures for controlling Phytophthora root rot disease.

Q: Prescribing proper control measures for controlling Powdery mildew disease.

Q: Why is one of the most important control measures for controlling Phytophthora root rot disease avoiding accumulating water?

Q: Draw a typical disease cycle of a hardwood leaf disease?

Q: Draw a typical disease cycle of powdery mildew fungus?

Q: Write common symptoms of foliage (leaves) diseases caused by fungi.

Q: What is the Anthracnose important hosts?

Q: Prescribing proper control measures for controlling Anthracnose disease.

Q: What is the typical sequence (stages) for canker development in trees?

Q: What are the general canker management measures?

Q: Why is pruning and removing galls recommended to control crown gall?

Q: Prescribing proper control measures for controlling crown gall disease.

Q: What are challenges and difficulties for pathologist in diagnosing a plant diseases?

Q: What are Koch's postulate steps?

Q: What is the benefit of following control measures

1. Spacing
2. Thinning
3. Pruning
4. Sterilization

Q: Application of pesticides for controlling a disease is depending on the following important points:

1.
2.
3.
4.

***Best of luck!***