

PARUL UNIVERSITY
COLLEGE OF AGRICULTURE
B.Sc.(Hons.)Agriculture Winter 2019 - 20 Examination

Semester: 2

Date: 17/12/2019

Subject Code :20107152

Time: 2:00 pm to 4:30 pm

Subject Name: Fundamentals of Plant Pathology

Total Marks: 50

Instructions

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Do as Directed.**A. Fill in the blanks. (Each of 0.5 marks)****(05)**

1. Father of Indian rust is _____.
2. Application of lime in soil reduces the _____ disease by increasing the pH of soil.
3. Alternate host of bajra rust is _____.
4. Alternate host of black stem rust of wheat disease _____.
5. Trade name of mancozeb is _____.
6. _____ discovered satellite virus.
7. Blast of rice is caused by _____.
8. _____ disease is constantly present in a moderate to severe form and is confined to a particular country or district.
9. Fosetyl-Al is _____ in nature.
10. Reconstructor of Mycology _____.

B. Multiple choice type questions. (Each of 0.5 marks)**(10)**

1. Fire blight of apple disease was first time reported by _____.

a) T. J. Burill	c) P. A. Saccardo
b) W. M. Stanley	d) Robert Hartig
2. _____ discovered parasexuality in *Aspergillus nidulans* first time.

a) Robert Hartig	c) K.C. Mahta
b) Pontecorvo & Roper	d) W. M. Stanley
3. Alternate host of black stem rust of wheat disease _____.

a) Barbary	c) weed
b) pea	d) brinjal
4. Destructive insects and pests act was passed in India _____.

a)1912	c)1914
b)1935	d)1940
5. _____ discovered satellite virus.

a)Kassins	c) P. A. Saccardo
b) W. M. Stanley	d) Robert Hartig
6. Irish famine is associated with.

a) late blight	c) india
b) early blight	d) Australia
7. Tridemorph...

a) Beam	c) Bavistin
b) Amistar	d) Calixin
8. Collection and destruction of crop debris from field is known as _____.

a)Sanitation	c) Exclusion
b)Eradication	d) Quarantine
9. Father of forest pathology _____.

a) Miles Joseph	c) E J Butler
b) E F Smith	d) Robert Hartig
10. _____ discovered first systemic fungicide.

a) Schmeling	c) J. F. Dastur
b) K. R. Kirtikar	d) B. B. Mundkur
11. Loranthus is...

a) Complete root parasite	c) Partial root parasite
b) Partial stem parasite	d) Complete stem parasite

12. Discovered 'Mycoplasma'...
- | | |
|-------------------|------------------|
| a) X. S. Prusiner | c) Doi and Ishii |
| b) Y. Mckinney | d) T. O. Diener |
13. _____ facultative parasites can pass their entire life in the soil.
- | | |
|------------------|-------------|
| a) Unspecialized | c) Obligate |
| b) Specialized | d) none |
14. Kresoxin methyl fungicide comes under group _____ of fungicide
- | | |
|-------------------|-----------------|
| a) Benzimidazoles | c) Pyrimidines |
| b) Acylalanines | d) Strobilurins |
15. Little leaf disease of brinjal is caused by...
- | | |
|----------------|-------------|
| a) Fungi | c) Bacteria |
| b) Phytoplasma | d) Nematode |
16. Which one is a beneficial plant bacterium?
- | | |
|-----------------------------|---|
| a) <i>Erwinia amylovora</i> | c) <i>Clostridium tetani</i> |
| b) <i>Rhizobium</i> spp. | d) <i>Xanthomonas campestris</i> pv. <i>Citri</i> |
17. Club root of crucifers caused by
- | | |
|------------------------------------|------------------------------------|
| a) <i>Armillariella mellea</i> | c) <i>Plasmodiophora brassicae</i> |
| b) <i>Synchytrium endobioticum</i> | d) <i>Ophiobolous graminis</i> |
18. Rice tungro virus transmitted by _____.
- | | |
|----------------|-------------|
| a) Aphids | c) whitefly |
| b) Leaf hopper | d) Jassids |
19. Coffee rust disease was introduced in India from...
- | | |
|--------------|----------------|
| a) Sri Lanka | c) Java |
| b) Europe | d) Philippines |
20. Father of biological control _____
- | | |
|-------------------|------------------|
| a) S D Garrett | c) Doi and Ishii |
| b) X. S. Prusiner | d) B. B. Mundkur |

Q.2 Do as Directed.

A. Define the following. (Any five)

(05)

1. Pathogen
2. Disease
3. Primary infection
4. Resistant
5. Disinfestant
6. Quarantine
7. Hyperplasia

B. Answer the following. (Any Five)

(05)

1. Name three reference books related to this course.
2. Enlist the source of survival of pathogen.
3. Enlist mechanisms of biological control.
4. Name the phanerogamic plant parasites.
5. Explain plant disease triangle with diagram.
6. Enlist the different type of plant resistances.
7. Enlist important plant pathogens.

Q.3 Write short notes. (Any five)

(10)

1. Explain process of penetration of plant pathogen in host during infection.
2. Give classification of fungicides based on methods of application.
3. Plant quarantine
4. Differentiate between virus and viroid
5. Differentiate between Biotroph and Necrotroph.
6. Differentiate between Systemic fungicides and Non-systemic fungicides.

Q.4 Attempt any Three/Long Questions/Example

(15)

1. Explain in brief: survival.
2. Explain in brief: dispersal.
3. Explain in brief: Infection process.
4. General principles of plant disease management.