

Roll No. : (in figure) _____ (in words) _____
Student Index No. _____ Regn. No. _____ of _____

Time : Two Hours

Full marks : 40

Questions are of value as indicated in the margin

Part - I
(Objective and Short Answer Type)
(Use only ball point pen)

Time : 20 minutes

Full marks : 10

- Note:** 1. Answer in question paper itself.
 2. Striking, rewriting or overwriting are not allowed in the objective type questions.

1. **State True (T) or False (F) in respect the following statements (any five):** 0.5×5=2.5

(a) Rust of wheat is a soil borne disease.	☐
(b) Victorin is a nonhost specific toxin.	☐
(c) Host enzymes kill the pathogen directly.	☐
(d) Fungi contain relatively high quantity of sterol in their membrane.	☐
(e) Polygalacturonase is a cellulose degrading enzyme.	☐
(f) Dolipore septation is an important identifying character of the class Basidiomycetes.	☐

2. **Fill up the blanks with most appropriate words (any five):** 0.5×5=2.5
 - (a) An open ascocarp is called _____.
 - (b) The nucleic acid of most plant viruses consists of _____.
 - (c) Most of the bacterial plant pathogens enter the host through _____.
 - (d) The cell wall of true fungi is mainly composed of _____.
 - (e) The female gametangium of ascomycetous fungi is known as _____.
 - (f) Resistance of plants to a disease controlled by one major gene is called _____.

3. Tick (✓) the correct alternatives (*any five*):

0.5×5=2.5

- (a) The great Bengal famine occurred in 1942-43 is known to be caused by (i) *Xanthomonas campestris* pv. *oryzae* (ii) *Dreusiera oryzae* (iii) *Helminthosporium maydis* (iv) *Pyricularia grisea*.
- (b) When parasites are capable of living as saprophytes is known as (i) Facultative parasites (ii) obligate parasites (iii) Facultative saprophytes (iv) None of these
- (c) Round shaped bacteria are called (i) Cocci (ii) Bacillus (iii) Spirillum (iv) Sarcina
- (d) An example of phanerogamic plant parasite is (i) *Rhizopus* sp. (ii) *Cuscuta* sp. (iii) *Puccinia* sp. (iv) *Pseudomonas* sp.
- (e) Fatty acids of host cuticle are considered to be (i) host elicitor (ii) pathogen elicitors (iii) Host receptors (iv) None of the above
- (f) Which of these is not asexually produced (i) conidium (ii) sporangiospores (iii) zoospores (iv) basidiospores.

4. Match the column 'A' with column 'B' and write your answer in column 'C' based on column 'A'

0.5×5=2.5

<u>Column-A</u>	<u>Column-B</u>	<u>Column-C</u>
a) Systemic fungicide	i) <i>Colletotrichum capsici</i>	
b) Serological technique	ii) Benomyl	
c) Example of holocarpic fungus	iii) Bordeaux mixture	
d) Acervulus producing fungus	iv) ELISA	
e) P.M.A. Millardet	v) <i>Synchytrium endobioticum</i>	

B.Sc. (Ag.) Honours Semester-III Examination, 2014
Course No: PPC-211 (Plant Pathogens and Principles of Plant Pathology
(New Syllabus)

Part - II
(Descriptive Type)

Time : 100 Minutes

Full marks : 30

Questions are of value as indicated in the margin

Answer any four questions from the following :

5. State the notable contributions of any three following scientists towards the development of plant pathology. 2.5×3=7.5
(a) Anton de Bary (b) Robert Koch (c) W.M. Stanley (d) Julius G. Kuhn (e) E.J. Butler
 6. Define biological control. Name some important fungal and bacterial biocontrol agents. Write down the mechanisms of biological control. 2+2+3.5=7.5
 7. Write short notes (**any three**) : 2.5×3=7.5
(a) Disease forecasting (b) Plant quarantine (c) Pathotoxin
(d) Transgenic plant (e) PGPR
 8. What is inoculum? What are the different types of inoculum? Briefly discuss how inocula survive in nature? 1+2+4.5=7.5
 9. Differentiate the following (**any three**) : 2.5×3=7.5
(a) Alternate host and collateral host
(b) Epidemic and Endemic dislase
(c) Monocious and Dioecious fungi
(d) Haustorium and Appresorium
(e) Zygosporc and Basidiosporc
 10. What do you mean by defence? Write in brief about the post infectional defence or induced defence mechanisms. 1.5+6=7.5
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