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Enrollment .	No: Exam Seat No:			
	C.U.SHAH UNIVERSITY			
	<b>Summer Examination-2019</b>			
Subject Nan	ne: Discipline Specific Elective-IV (Plant Pathology)			
Subject Cod	e: 4SC06PPY1 Branch: B.Sc. (Microbiology)	Branch: B.Sc. (Microbiology)		
Semester: 6	Date: 25/04/2019 Time: 10:30 To 01:30 Mar	ks: 70		
<ul><li>(2) Instr</li><li>(3) Draw</li></ul>	of Programmable calculator & any other electronic instrument is prohibite uctions written on main answer book are strictly to be obeyed. v neat diagrams and figures (if necessary) at right places. Ime suitable data if needed.	d.		
Q-1	Attempt the following questions:	(14)		
a)	Who is the father of Plant pathology?	1		
<b>b</b> )	Give example of any two Plant pathogen.	1		
•	*	1		
<b>d</b> )	A plantibody is an antibody that is produced by plants that hav been genetically engineered with animal DNA encoding a specific huma antibody known to neutralize a particular pathogen or toxin. True / False	n		
<b>e</b> )	Expand: HR	1		
f)	Harold Henry Flor was a plant pathologist famous for proposing the gene for gene hypothesis of plant-pathogen genetic interaction. True / False.	e 1		
<b>g</b> )	Microorganisms are abiotic type of plant pathogen. True / False.	1		
h)		1		
i)	Define: Plant pathology.	1		
j) k)	Dutch elm disease is an example of Polyetic diseases. True / False. Enlist the type of plant resistance.	1		
l)	What is the function of xylem in plant?	1		
,	Give example of any two natural openings present in plant.	1		
n)	Insects are capable of spreading infectious agents from one plant to	1		
	another plant. True / False.			
Attempt any	four questions from Q-2 to Q-8			

Q-2		Attempt all questions	(14)
	a)	Describe in detail the effect plant pathogen on following plant	7
	<b>b</b> )	physiology processes 1) Photosynthesis 2) Respiration 3) Translocation of water & nutrients. Write a brief note on Lytic disease cycle of viral plant pathogen with labeled diagram.	7

## Attempt all questionsa) Discuss the valuable work of following plant pathologists : (14) 7 Q-3



		1) Anton De Bary 2) Adolph Mayer 3) Stakman.	
	<b>b</b> )	Describe the symptoms associated with Bacterial plant diseases.	7
Q-4		Attempt all questions	(14)
	a)	What is Mono Cyclic disease? Describe it in detail with labeled diagram.	7
	<b>b</b> )	Write a brief note on Disease triangle.	4
	c)	Write a note on Koch's Postulates.	3
Q-5		Attempt all questions	(14)
	a)	Describe the Genetic engineering of disease resistance plants.	7
	<b>b</b> )	Explain Poly Cyclic disease in detail with labeled diagram.	7
Q-6			
		Explain the Stages of disease development in detail.	14
Q-7		Attempt all questions	(14)
	a)	Write a note on any three plant disease management methods.	7
	<b>b</b> )	Explain briefly, the following Virulence factors of pathogens important	7
		for disease development in plant:	
		1) Enzymes 2) toxins 3) Growth regulators.	
Q-8		Attempt all questions	(14)
	a)	Briefly describe the Structural defense mechanisms in plant.	7
	<b>b</b> )	Define: Resistance gene. Differentiate Vertical & Horizontal plant resistance.(any five points)	4
	c)	Discuss the role of Millardet in the field of phytopathology.	3

