

[A-97]

No. of printed pages: 2

SARDAR PATEL UNIVERSITY B.Sc VI semester (CBCS) BIOTECHNOLOGY US06CBIT04 (VIROLOGY) TIME: 2:30 PM TO 5:30 PM Thursday, 4th APRIL 2016

TOTAL MARKS: 70

Note:	, .	uestions are compulsory res to the right indicate					
					[10]		
Q1		Multiple choice questions:					
	I)	viruses agglutinate RBC.					
		, TMV	b	Adenovirus			
	C	Herpes virus	. d	Foot & Mouth			
	II)	The plaque formed on s unit.	emi solid	medium is represented as			
	a	CFU	Ъ	PFU/ml			
	c	Colony/ml	d	All of the above			
	III)	Viruses are visible in	micro	oscope.			
	a	Light	b	Compound			
	c	Simple	d	Electron			
	IV)	Lytic or Lysogenic cycle depends on					
	a	Terminator	b	Repressor			
	С	Promoter	d	Operon			
	V)	The Viral DNA inserted into host DNA is known as					
	a	Virulant	Ъ	Non Virulant			
	c	Prophage	d	All of the above			
	VI)	Integrated HIV DNA is known as					
	a	¹ Virions	Ъ	Provirus			
	c	Prions	d	None			
	VII)	Which of the following refer the correct order of events that take place during the multiplication of virus?					
	9						
	a Attachment, Penetration, Maturation, Biosynthesis, Release b Penetration, Attachment, Maturation, Biosynthesis, Release						
	c						
	d	Attachment, Penetration, Biosynthesis, Maturation, Release Attachment, Maturation, Penetration, Biosynthesis, Release The transcription of viral nucleic acid into mRNA is not necessary in					
	VIII)						
	V 111)	case of .					
	a	RNA virus	b	ds DNA virus			
	С	ss DNA	d	All of the above			
	IX)	The TMV is approxima	itely				
	a	300 X 18 nm	b	3000 X 5 nm			
	c	800 X 10 nm	d	700 X 30 nm			
	X)	Viroids have					
	a	ds DNA enclosed by protein coat.					
	Ъ	ss DNA not enclosed by protein coat					
	c	ss RNA not enclosed by protein coat					
	d	ds RNA not enclosed by protein coat					

Q2		Answer the following questions (any 10):				
	1	What are the principles of ICNV?				
	2	Write a note on: counts of physical particles.				
		 What do you mean by metal shadow effect? Define eclipse and latent period. Draw regulatory region of lambda phage. Give significance of co-operative binding. Write different characteristics of vaccinia virus. 				
		8 List out general properties of hepatitis viruses.				
	9 Mention the general characteristics of Reovirus.					
		10 Define viroids.				
	11	, and the state of				
	12	By which different ways we can control the viral disease to plants from infection?				
Q3	(a)	List out different methods for assaying viruses. Write about heamagglutination with its mechanism.	[06]			
	(b)	Write a note on "envelope".	[04]			
		OR	[0.1]			
Q3	(a)	Discuss the modern classification system of viruses with help of flow chart.	[06]			
	(b)	Explain DNA as a nucleic acid in viruses.	[04]			
Q4		Discuss lytic cycle with respect to its molecular mechanism. OR	[10]			
Q4		What is repressor? Explain prophase with diagrammatic representation and give significance of lysogeny.	[10]			
Q5	(a)	Sketch the structure of HIV and explain its multiplication in host cells.	[05]			
	(b)	Discuss in detail adenovirus.	[05]			
	1	OR				
Q5	(a)	Explain the multiplication of hepatitis B virus in hepatocytes.	[06]			
	(b)	Give an account on Prions.	[04]			
Q6	(a)	Describe various means of viral transmission in plants.	[05]			
	(b)	Give the symptoms of virus infection in plants.	[05]			
		Villy the unapprison of v RO polete and integral NA is not necessary	[30]			
Q6	(a)	Explain multiplication of TMV and movement in plants with its structure.	[05]			
	(b)	Discuss physical and chemical properties of plant viruses.	[05]			

ALL THE BEST
