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SARDAR PATEL UNIVERSITY B.Sc. [IT] EXAMINATION, 6th SEMESTER Saturday, 9th April, 2016

US06CINT06[Data Communication and Networking] Time::2:30 p.m. to 5:30 p.m. Maximum Marks: 70

Q-1 Multiple Choice Question [Each Question] 1) The data elements sent from one device				on carries one Mark] to another per second is known as			
	a)	Bandwidth	b)	Modulation Rate			
	c)	Data Rate	d)	None of these			
2)	"Intercon	nected collection of autonom	ous com	nuters" is known as			
	a.)	Computer network	b)	Host	- '		
	c)	Subnet	d)	Server			
3)	consists of two distinct components: transmission lines &						
	switching elements.						
	a)	Host	b)	Subnet			
	c)	Intermediate System	d)	Server			
4)	In a fiber-	optic cable, the signal is pro	nagated :	along the inner core by	4.		
	a)	Reflection	b)	Refraction	•		
	c)	Modulation	d)	Amplification			
	- /		u)	Ampinication			
5)	Which of the following is not a guided medium?						
	a)	Twisted-pair cable	b)	Coaxial cable			
	c)	Fiber-optic cable	ď)	Atmosphere			
6)	Which of the following physical connection is the fastest?						
	a)	Twisted pair	b)	Fiber-optic cable			
	c)	Coaxial cable	d)	Radio waves.			
7)	The signal from a satellite is normally aimed at a specific area called						
	a)	Channel	b)	Tower			
	c)	Footprint	d)	Orbit			
8)	A set of la	ayers and protocols is called					
	a)	network architecture	b)	Protocol stack			
	c)	Computer architecture	d)	Layers stack			
9)	A repeater operates at layer.						
,	a)	physical	b)	datalinle			
	c)	network	p)	datalink			
	0)	network	d)	all of these			
10)	A can	be used to connect two diffe	rent netv	works that use different			
	models.	models.					
	a)ro	uter	b) sw	vitch			
	,	ateway		of these			
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Q-2		Give Answers for the following:(Any ten)	[20]
	1, 2, 3, 4, 5, 6, 7,	Explain DQDB in brief. Define: Topology and Server. What are the uses of computer networks? List various categories of Coaxial cable and state their use Explain serial transmission in brief. Differentiate between TDM and FDM. List main responsibilities of following layers. a. Physical Layer b. Data Link Layer	
	8,	Explain orbit.	
	9. 10,	What is satellite? List categories of satellite. What are the two types of network according to connection type? What is the basic difference between them?	
		Explain in brief: Point-to-Point network. What are the advantages of bus topology?	
Q - 3	A) B)	What are advantages of computer networks? Explain in detail. Explain LAN in detail.	[5] [5]
		OR	
Q - 3	A) B)	How can we classify computer Network? Explain WAN in detail.	[5] [5]
Q - 4	A) B)	Explain twisted pair cable in detail. Explain Synchronous TDM in detail.	[5] [5]
		OR	
Q - 4	A) B)	Explain fiber optic in detail. Write the difference between circuit switching and packet switching.	[5] [5]
Q - 5	A) B)	List all layers of OSI model. Explain any two layers. Write a note on wireless network.	[5] [5]
Q - 5	A) B)	OR Write a note on communication satellite. Write a note on design issues for the layers.	[5] [5]
Q -6		List and explain any three topologies in detail.	[10]
		OR	
Q -6		Explain switch and router in detail.	[10]