Total No. of Questions : 4]	90	SEAT No. :
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## [6360]-28 T.E. (Computer Engineering) (Insem.) COMPUTER NETWORKS AND SECURITY (2019 Pattern) (Semester - I) (310244)

Time	:1 H	[Max. Marks	: 30
Instr	ructio	ns to the candidates :	
	<i>1</i> )	Neat diagrams must be drawn whenever necessary.	
	<i>2</i> )	Figures to the right side indicate full marks.	
	<i>3</i> )	Assume Suitable data if necessary.	
	<i>4</i> )	Answer Q.1 or Q.2, Q.3 or Q.4.	
		Assume Suitable data if necessary.  Answer Q.1 or Q.2, Q.3 or Q.4.	
<i>Q1</i> )	a) \( \)	Describe Bridge, Gateway and Access point.	[6]
	b)	Explain Frequency Hopping Spread Spectrum.	[5]
	c)	Explain LAN and MAN.	[4]
		OR	
<i>Q</i> 2)	a)	Draw Manchester and differential Manchester code for the bit sequen	nce:
~	,	01001011.	[6]
	b)	Explain TCP/IP Model,	.[5]
	c)	Explain Ring and Mesh topologies.	[4]
		186°.	
<i>Q3</i> )	a) <b>(</b>	Give brief about HDLC Protocol.	[6]
20)	b)	Justify answer using CRC for divisor: 1101 dividend: 100100.	[5]
	X		
	c)	Give brief about design issues in DLL.	[4]
		OR	
<b>Q4</b> )	a)	What are Framing, Error control and Flow control?	[6]
	b)	Give short note on CSMA/CA, CSMA/CD.	[5]
	c)	Explain Stop and Wait Protocol.	[4]