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SF-7731

B. E. IV (Sem. VIII) (ECC) Examination

May / June – 2011

Informatics (Elective - I)

Time : **3** Hours] [Total Marks : **100**

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ **B. E. 4 (Sem. 8) (ECC)**

Name of the Subject :

☛ **Informatics (Elective - I)**

☛Subject Code No. : **7 7 3 1** ☛Section No. (1, 2,.....) : **Nil**

Seat No. :

Student's Signature

(2) Figures to the right indicate full mark to the question.

(3) Assume suitable data whenever necessary.

SECTION - I

1 (a) Fill in the blanks : **10**

(i) What is RTS stands for ?

(ii) Frame Relay is a cost effective technology that connects_____

(iii) Minimum frame length for Ethernet is _____ _____ bits.

(iv) The _____ identifies the protocol stack on sending machine.

(v) Maximum length of network for fast Ethernet is _____.

(vi) Data unit in LLC sublayer is called_____.

(vii) _____ encoding technique is used in 100Base-Tx.

(viii) Cable standard used for 10Base2 is _____.

(ix) A wireless LAN using FHSS hopes 10 times per cycles if bandwidth of original signal is 10 MHz and 2GHz is the lowest frequency. The highest freq. of system is _____.

(x) 802.11b offers data rates of _____.

(b) Explain w.r.t. wireless LAN : (i) Inter frame space (ii) ESS (iii) Handshaking. **5**

(c) Discuss the layers of Bluetooth. **5**

2	(a)	Compare PCF and DCF with reference to W-LAN.		5
	(b)	Explain framing structure of IEEE 802.3 MAC frame.		6
	(c)	Compare and contrast X.25 & Frame Relay.		4
		OR		
2	(a)	Give advantages and disadvantages of Frame Relay.		5
	(b)	Explain framing structure of 802.11 Wireless LAN in brief.		6
	(c)	Write a short note to describe the architecture of SMDS.		4
3		Write a short note : (any **three**)		15
	(i)	Explain FDDI frame format.		
	(ii)	Explain Congestion avoidance with respect to Frame Relay.		
	(iii)	Explain DQDB in brief.		
	(iv)	Discuss 802.11 services.		
4	(a)	(i)	ATM multiplexes cell using _____ multiplexing scheme.	10
		(ii)	B-ISDN has data rate of _____.	
		(iii)	SDH stands for _____.	
		(iv)	In ATM, CLP is used in _____ layer.	
		(v)	Define TA	
		(vi)	Reference point _____ is used to connect NT1 and NT2.	
		(vii)	ATM packets consists of 5 bytes of _____ and 48 bytes of _____.	
		(viii)	The PRI structure has data rate of _____.	
		(ix)	Define VPI.	
		(x)	Is ISDN _____ channel is used to send controlling information.	
	(b)	Explain line overhead of STS 1 frame.		5
	(c)	Explain ATM architecture.		5
5	(a)	Explain ATM switching with a diagram.		8
	(b)	Explain LAPD frame format of ISDN.		7
		OR		
5	(a)	Discuss different channels used in ISDN.		8
	(b)	Explain the AAL layer that supports constant and variable bit rate in ATM.		7
6		Explain the following : (any **three**)		15
	(i)	X.25 Protocol		
	(ii)	Call establishment in ATM		
	(iii)	Functional groupings and reference points of ISDN architecture.		
	(iv)	Comparison of Virtual and datagram circuit switching.		