B.Tech Degree VII Semester (Supplementary) Examination June 2006

IT 705 (B) INTRODUCTION TO ISDN
(Prior to 2002 Admissions)

Time : 3 Hours   Maximum Marks : 100

I.	(a)	Define ISDN integrated access. What are the digital services offered by ISDN?	(6)
	(b)	Explain the different types of switched networks with examples.	(8)
	(c)	What is an access interface? Differentiate BRI and PRI?	(6)

OR

II.	(a)	Explain the different ISDN reference points used in communication between different ISDN functional devices.	(10)
	(b)	What is a bearer service? Explain information transfer, access and general attributes.	(10)

III.	(a)	Explain the concept of control plane and user plane introduced by ITU – T in the protocol architecture of ISDN.	(12)
	(b)	What is pseudo-ternary signalling? Explain.	(8)

OR

IV.	(a)	What is LAPD? Explain LAPD frame format. What are the different types of LAPD frames?	(10)
	(b)	What is a circuit mode call? Explain how users terminal and network signal can be connected and disconnected using a circuit mode call.	(10)

V.	(a)	Explain X.25 packet mode services. Differentiate X.31 case A and X.31 case B packet mode service recommendations.	(10)
	(b)	Differentiate Frame relay and Cell relay technologies. What is asynchronous transfer mode?	(10)

OR

VI.	(a)	Explain in detail, the ATM adaptation layer in the protocol stack of ATM. What are the different AAL service classes and types?	(10)
	(b)	What is SMDS? Explain the protocol interfaces and network components in SMDS.	(10)

VII.	(a)	What is common channel signalling? Distinguish between SS6 and SS7 signalling systems.	(6)
	(b)	Explain with a neat diagram, the different layers in the protocol architecture of SS7 signalling system.	(14)

OR

VIII.		Write short notes on the following :	
	(i)	TCP/IP	
	(ii)	Private branch exchanges	
	(iii)	TI carrier networks	
	(iv)	Packet switching techniques.	(20)

IX.	(a)	Explain the hardware architecture of AT & T SESS switch with a suitable diagram.	(10)
	(b)	Explain the functional block diagram of a generic ISDN telephone.	(10)

OR

X.	(a)	Explain the different types of test equipments used in the development of communication protocols. What is a protocol analyzer?	(12)
	(b)	Write short notes on ISDN generic chips and chipsets.	(8)

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