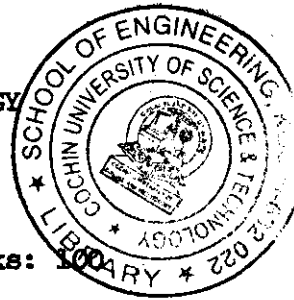Code no. BTS 022(A)

B.TECH DEGREE VII SEMESTER EXAMINATION IN INFORMATION TECHNOLOGY
APRIL 2000

IT 705 INTRODUCTION TO ISDN

Time: 3 Hours   Maximum Marks: 100

Module 1

I. (a) What are the standards for ISDN. Discuss various channels used in
        ISDN.   (10)
    (b) Explain the basic difference between electronic switching and the
        digital switching. What is digital PBX and how can it be used
        with ISDN's.   (10)

OR

II. Explain :
                1. Advantages of ISDN
                2. Different types of ISDN
                3. ISDN reference points
                4. ISDN integerated access & digital services.   (20)

Module 2

III.(a) Discuss ISDN interface. · Explain the functional groupings and
        reference points therein. How do these interfaces differ for
        different services.   (10)
    (b) Explain the principle & architecture of ISDN.   (10)

OR

IV. (a) Explain ISDN components.   (8)
    (b) Explain different ISDN information sources.   (12)

Module 3

V. (a) An ISDN basic access frame has 32B bits & 4D bits. Suppose that
        more bits were used – say 160 B bits & 20 D bits / frame. Would
        this reduce the percentage overhead and therefore the basic access
        bit rate ? If so discuss any potential advantages.   (12)
    (b) Explain the basic rate and primary rate interfaces.   (8)

OR

VI. (a) Explain the common channel signalling in the ISDN user network
        interface.   (12)
    (b) Explain LAPD protocol and services.   (8)

Module 4

VII.(a) Explain the structure of ATM cells and header error control.   (10)
    (b) Discuss the transmission of ATM cells.   (10)

OR

VIII(a) Explain X 25 packet mode services with a call example.   (10)
    (b) Explain the Frame mode bearer services & Frame relay.   (10)

Module 5

IX. (a) Discuss TCP/IP and internetworking. (14)

(b) Can satellite be used in ISDN applications ?   Discuss the merits and demerits of satellite based ISDN's. (6)

OR

X. (a) Discuss the Terminal equipments used in ISDN.   What are the main features of TE's in ISDN. (10)

(b) What are signalling systems ? Explain SS7 protocol. (10)

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