davv bca question papers

June-July 2008

Bachelor of Computer Application (BCA) Examination

IV Semester

Data and Network Communication

Time : 3 Hours]   [Max. Marks : 40

Note :   **Attempt any two parts from each question. All questions are compulsory.**

1.   (a)   Explain the terms :
         (i) Simplex Communication
         (ii) Half Duplex Communication
         (iii) Full Duplex Communication
         (iv) ASCII
         (v) unicode.
     (b)   Represent bit stream 10101101 in following bit encoding schemes :
         (i) Unipolar NRZ   (ii) Bipolar NRZ-L
         (iii) Bipolar NRZ-I   (iv) Manchester
         (v) Differential Manchester.
     (c)   Explain Attenuation, Distortion and Noise. What is the unit to measure attenuation.

2.   (a)   Explain OSI model and enlist design issues of each layer.
     (b)   Explain basic working principle of optical fiber cable. Explain single mode and multimode fiber.
     (c)   Explain circuit switching and packet switching. Enlist their differences.

3.   (a)   Explain RS449 and RS232C interface standards.
     (b)   Explain Frequency and Time Division Multiplexing. What is guard bands in FDM?
     (c)   Explain Sampling theorem. Explain Natural and Flat-top Sampling.

4.   (a)   Explain bit stuffing and byte stuffing techniques of framing.
     (b)   Explain IEEE 802.3 standard.
     (c)   Explain X.25 standard.

5.   (a)   Explain Symmetric and Asymmetric digital subscriber line. Explain working of ADSL modem briefly.
     (b)   Explain ISDN.
     (c)   Explain TCP/IP reference model. Briefly describe role of TCP and IP protocols in Internet.

＊ ＊ ＊