FYIT – sem II
Date-29/9/15

VCD2909/15 -DCN -F.Y.B.S.C (I.T.) -SEM-II – 75 marks– 2½HRS

NOTE: **1) Diagrams should be Neat and labeled.**
2) All Questions are compulsory.
3) Right side indicates marks.

Q.1) Attempt any two. [10]

A) Write a short note on 1. Wavelength 2. Phase 3.Frequency..
B) List components required for data communication .Explain It.
C) What is composite signal? Explain with Fourier analysis concept.
D) Define protocol with standards

Q.2) Attempt any two. [10]

A) Describe TCP/IP suit.
B) What are the responsibilities of SCTP, TCP, UDP in TCP/IP suit.
C) How we can find First, Last, and No of address? Explain with example.
D) What is IP address? Describe different types of classes in IP address.

Q.3) Attempt any two. [10]

A) What is hamming distance for each of following code and also find out Minimum hamming distance.
1. d(10000,01000) 2. d(10101,10010) 3. d(1111,1111) 4. d(0000,0000)
B) Explain CRC method.
C) Describe JPEG process for video compression.
D) What is one's compliment method in checksum? Explain with example.

Q.4) Attempt any two. [10]

A) Explain unguided transmission media.
B) What is purpose of cladding in an optical fiber? Explain it with diagram.
C) Explain serial and parallel transmission modes.
D) Explain scrambling in digital-digital Conversion.

Q.5) Attempt any two. [10]

A) Define topology. Explain following topologies with advantages and disadvantages
1. Hybrid 2. RING 3.STAR
B) What are two approaches required for packet switching? Explain it.
C) Write short note on 1.message switching 2. Circuit switching
D) Explain static and dynamic routing.

Q.6) Attempt any two. [10]

A) Write short note on 1.loopback 2. Unspecified. Address.
B) How to transit IPV6 to IPV4? Explain its mechanism.
C) Differentiate IPV4 and IPV6.
D) Describe ipv6.

Q.7) **Attempt any three.** [15]

A) Describe bipolar method.

B) What is parity? Explain single parity method.

C) Differentiate guided and unguided media.

D) Explain unipolar method.

E) Explain AM, FM, PM.

F) Describe twisted pair transmission media.