**Code No: IT15214S**

**CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (Autonomous)**

**BE (IT) II Yr I Sem (Suppl) Examination May 2015**

**DATA COMMUNICATIONS**

**Time: 3 Hours Max Marks:75**

**Note:** Answer all questions from **Section-A** at one place in the same order

Answer any **five** questions from **Section-B**

SECTION - A (25 Marks)

1. Write about spanning tree bridge (2)

2. Briefly explain the IEEE 802.5 frame format (2)

3. How is a repeater different from an amplifier (2)

4. Name the four types of S-frames (2)

5. What is the purpose of the Hamming code? (2)

6. Distinguish synchronous and asynchronous transmission (3)

7. Differentiate Switches, Hubs, Routers and Gateways (3)

8. Distinguish between PCM and DM (3)

9. Write short notes on X25 and Frame Relay (3)

10. For the bit stream 11001010 sketch Manchester and Differential Manchester encoding

schemes (3)

**SECTION - B (50 Marks)**

11. (a) Compare OSI reference model with TCP/IP reference model (7)

(b) Discuss about Transmission impairments (3)

12. (a) Explain in detail the frame structure and operation of HDLC (5)

(b) Explain the concept of Sliding Window Protocol with neat diagram (5)

13. (a) Define Spread spectrum and its goal and Discuss about the Direct Sequence Spread

Spectrum (6)

(b) Compare Circuit switching and Packet switching (4)

14. (a) Sketch the architecture of ATM and explain the functions of

each layer in ATM (6)

(b) What is X.25 and explain the purpose of X.25 (4)

15. (a) Briefly explain ALOHA, CSMA, CSMA/CD and CSMA/CA protocols and

compare its performance (6)

(b) Draw Bluetooth architecture and briefly explain its operation (4)

16. (a) Explain HDLC in detail with neat diagrams state the importance of HDLC (6)

(b) Discuss ADSL & XDSL in detail (4)

17. Write short notes on the following

(a) Transmission impairments (4)

(b) Line interfacing (3)

(c) LAN & Wirelessa LAN (3)