Code No: 09A50508

R09

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD
B. Tech III Year I Semester Examinations, November/December-2013
DATA COMMUNICATION AND COMPUTER NETWORKS
(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 75

Answer any five questions
All questions carry equal marks

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1.a) Draw and explain the functions of various layers in OSI model.
  b) What is the result of scrambling the sequence 11100000000000 using B8ZS scrambling technique? Assume that the last non-zero signal level has been positive.

[10+5]

2.a) Distinguish between Synchronous and Statistical TDM.
  b) Briefly explain the characteristics of Guided media.   [7+8]

3.a) Calculate CRC, if the message is x^7+x^5+1 and the generator polynomial is x^3+1.
  b) Explain the concept of Selective Repeat ARQ protocol with a suitable example.

[7+8]

4.a) Write short notes on the various devices used to connect LAN's.
  b) Explain the layers of SONET.   [7+8]

5.a) Explain with an example Distance Vector routing Algorithm.
  b) Write briefly about ICMP.   [7+8]

6.a) Explain the working of 3-way handshaking used in TCP.
  b) Explain the Integrated Services QoS model.   [7+8]

7. Explain SMTP and POP3 protocols.   [15]

8. Discuss how SIP is used in the transmission of multimedia.   [15]

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