Seat	
No.	

[4657]-586

S.E. (Information Technology) (Second Semester) EXAMINATION, 2014 FOUNDATION OF COMPUTER NETWORKS (2012 PATTERN)

Time : Two Hours

Maximum Marks : 50

- N.B. :- (i) Answer Q. No. 1 or Q. No. 2, Q. No. 3 or Q. No. 4, Q. No. 5 or Q. No. 6, Q. No. 7 or Q. No. 8.
 - (ii) Figures to the right indicate full marks.
 - (iii) Assume suitable data, if necessary.
- (a) Write short note on Analog Signals and Digital Signals with the help of waveforms. [6]
 - (b) How is the bandwidth of a signal related to its spectrum ? [6]

Or

- (a) Explain various transmission impairments present in Data
 Communication. [6]
 - (b) Draw and explain PCM and DM. [6]

3. (a) Explain Circuit switched network with three phases. [7]
(b) Explain in detail backbone networks. [6]

Or

- 4. (a) Explain various types of Unguided media in detail. [7]
 (b) Explain different addressing schemes in TCP/IP model. [6]
- 5. (a) What is CRC ? Generate the CRC code for message 1101010101. Given generator polynomial $g(x) = x^4 + x^2 + 1$. [6]
 - (b) Explain in detail Stop and Wait and Selective Repeat ARQSystem. [6]

Or

- 6. (a) Explain in detail Go-Back-N and Selective Repeat ARQ
 System. [6]
 - (b) Explain Error Detection and Correction in Block coding. [6]
- 7. (a) Explain FDMA, TDMA and CDMA in detail. [6]
 - (b) Discuss CSMA/CA random access technique. How is collision avoidance achieved in this technique ? [7]

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[4657]-586
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- 8. (a) Explain CSMA and CSMA/CD. Also comment on the efficiency of each.
 - (b) Discuss Fast Ethernet technology in brief. State its specification. [7]