**Code No: CS17223**

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

**B.E. (CSE) II/IV II Sem (Main) Examination May 2017**

**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)**

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| 1 | What are the components of data communication system? | (2) |
| 2 | Define the following terms Bandwidth, SNR and Jitter. | (3) |
| 3 | Difference between synchronous and asynchronous data transmission . | (3) |
| 4 | Define spread spectrum and its goals. | (2) |
| 5 | List and explain the types of errors. | (3) |
| 6 | List the protocols to implement data link control for noisy and noiseless channels. | (2) |
| 7 | What is vulnerable time? | (2) |
| 8 | What are the different categories of connecting devices that work in each layer? | (3) |
| 9 | What is the purpose of NIC? | (2) |
| 10 | Discuss about handoff management in cellular telephony. | (3) |

**Section - B (50 Marks)**

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| 11 | (a) | Draw and explain TCP/IP protocol suite. | (5) |
|  | (b) | Write about unguided transmission media. | (5) |
| 12 | (a) | Explain about circuit switched network. | (5) |
|  | (b) | List the five line coding schemes in digital to digital conversion and explain any two techniques in detail. | (5) |
| 13 | (a) | Explain about stop and wait ARQ. | (5) |
|  | (b) | Explain HDLC frame structure. | (5) |
| 14 | (a) | Compare and contrast CSMA/CD and CSMA/CA. | (5) |
|  | (b) | What is the loop problem in learning bridges and what is the solution for it? | (5) |
| 15 |  | Explain in detail about ATM architecture and services. | (10) |
| 16 | (a) | Briefly explain about Wavelength Division Multiplexing. | (5) |
|  | (b) | Discuss about datagram networks. | (5) |
| 17 | (a) | Describe FDMA and TDMA. | (5) |
|  | (b) | Write about global system for mobile communication. | (5) |

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