# B. Tech Degree VIII Semester Examination, April 2009

## CS/IT 803  INTERNETWORKING
*(1999 Scheme)*

Time : 3 Hours                                                                                     Maximum Marks : 100

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|---|---|---|---|
| I. | (a) | What is the role of TCP/IP in the internet? | (5) |
| | (b) | Explain the structure of TCP/IP layer.  Mention the function of each layer. | (10) |
| | (c) | What are IP gateways?  What is the need of it? | (5) |

**OR**

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| II. | (a) | Describe the structure of TCP/IP software in an operating system. | (10) |
| | (b) | Explain the architecture of internet.  Explain how interconnection through IP gateways occur. | (10) |

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| III. | | Explain the conceptual organization of ARP software. | (20) |

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| IV. | (a) | Explain ICMP message format and the implementation of ICMP message. | (10) |
| | (b) | Why buffer management is needed?  Explain the common issues in buffer management. | (10) |

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| V. | (a) | With a neat diagram explain a TCP finite state machine. | (10) |
| | (b) | What is meant by Transmission Control Blocks?  How are they allocated? | (10) |

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| VI. | (a) | Explain TCP timer management. | (10) |
| | (b) | Explain the functions of different protocols in transport layer. | (10) |

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| VII. | (a) | Discuss the various issues in client software design. | (10) |
| | (b) | What do you mean by concurrent processing in client server software? | (10) |

**OR**

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| VIII. | (a) | Explain the major system calls used with sockets. | (10) |
| | (b) | Describe the communication between client and server using TCP. | (10) |

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| IX. | (a) | Discuss the algorithms in server software design. | (10) |
| | (b) | Write the RPC implementation. | (10) |

**OR**

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| X. | (a) | Explain the features of concurrent connection oriented servers. | (10) |
| | (b) | Compare iterative connectionless servers and iterative connection oriented servers. | (10) |

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