

FACULTY OF INFORMATICS
B.E. 3/4 (IT) II – Semester (Main) Examination, June 2014

Subject : Computer Networks

Time : 3 hours

Max. Marks : 75

Note: Answer all questions from Part-A. Answer any FIVE questions from Part-B.

PART – A (25 Marks)

- 1 What is a Computer Network? Give an example. (3)
- 2 Distinguish between service and protocol. (3)
- 3 Define HTTP. (2)
- 4 What is DNS? Specify the format of resource record. (3)
- 5 Differentiate between TCP and UDP. (3)
- 6 Differentiate between IPv4 and IPv6. (2)
- 7 What is RPC? Define marshaling. (2)
- 8 What are value result arguments? Which system calls use them? (2)
- 9 What is the purpose of application gateway in a firewall? (2)
- 10 What is a digital signature? What are the different methods of achieving the same? (3)

PART – B (50 Marks)

- 11 What is a routing algorithm? Discuss static and dynamic routing algorithms. (each one in detail) (10)
- 12 a) Explain Interior and Exterior routing protocols in detail. (7)
- b) Draw and give range of all IP addresses. What is loop back address? (3)
- 13 a) Define socket. Explain all elementary socket system calls in detail. (8)
- b) Define "association". (2)
- 14 Explain protocols for Voice over IP. (10)
- 15 a) Explain any symmetric-key algorithm in detail. (8)
- b) Differentiate between authentication and authorization. (2)
- 16 a) Explain various congestion control methods used in virtual circuit and datagram subnets. (6)
- b) Explain the fields of TCP header along with a diagram. (4)
- 17 Write short notes on : (5+5)
 - a) Mobile IP
 - b) Authentication protocols
