

**FACULTY OF INFORMATICS**

B.E. 3/4 (IT) II – Semester (Main) Examination, May / June 2015

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 Define QoS and list its parameters. (3)
- 2 Distinguish between “connection oriented” and “connection less” services. (3)
- 3 What are daemon processes? (2)
- 4 Define a socket. Write the range for standard ports. (2)
- 5 What is “tunneling”? (2)
- 6 What is a subnet mask? (3)
- 7 Define DNS. Differentiate between authoritative and cached records. (3)
- 8 Differentiate between POP3 and IMAP. (2)
- 9 Draw and explain the encryption model for network security. (3)
- 10 What are digital certificates? (2)

**PART – B (50 Marks)**

- 11 Explain the ISO-OSI model. Differentiate between OSI and TCP/IP models. (10)
- 12 a) Draw header format of IP protocol and explain its fields. (5)  
b) Differentiate between OSPF and BGP. (5)
- 13 a) What is inetd? Specify the need for it. Explain the steps executed by it. (7)  
b) Explain advanced socket system calls. (3)
- 14 a) Explain the architecture of WWW. (5)  
b) Explain architecture, services and protocols used by E-mail. (5)
- 15 a) Explain any public key algorithm in detail along with an example. (6)  
b) Explain IPsec in detail. (4)
- 16 a) Explain fragmentation mechanism as a means of Internetworking. (6)  
b) Explain how connections are established and released in TCP. (4)
- 17 Write short notes on : (10)
  - a) Streaming audio
  - b) NAT

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