

[Total No. of Questions: 12]

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UNIVERSITY OF PUNE

[4364]-806

B. E. (IT)(May/June) Examination - 2013

ADVANCED COMPUTER NETWORKS (ELECTIVE-III)

(414450) (2008 Course)

[Time: 3 Hours]

[Max. Marks: 100]

Instructions:

- 1 Answers to the two sections should be written in separate answer-books.*
 - 2 Black figures to the right indicate full marks.*
 - 3 Your answer will be valued as a whole*
 - 4 Neat diagrams must be drawn wherever necessary.*
 - 5 Use of logarithmic tables, slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.*
 - 6 Assume suitable data, if necessary.*
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SECTION –I

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|-----|----|---|-----|
| Q.1 | A) | Explain the logical layers of ISO/OSI model in detail | [8] |
| | B) | Discuss in detail various principles of network design. | [8] |

OR

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|-----|----|---|-----|
| Q.2 | A) | Describe in detail protocol stack of Bluetooth. | [8] |
| | B) | Explain network architecture with neat diagram | [8] |

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|------|----|---|-----|
| Q. 3 | A) | What is Network Address Translator? Explain in detail | [8] |
| | B) | State and explain the protocols of MPLS. | [8] |

OR

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|------|----|--|-----|
| Q. 4 | A) | Explain in detail CIDR | [8] |
| | B) | Explain the general characteristics of Mobile IP | [8] |

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|------|----|----------------------------------|------|
| Q. 5 | A) | Write a short notes on : (any 3) | [18] |
| | | 1) The structure of ATM header | |
| | | 2) Various delays of the network | |
| | | 3) IPv6 | |
| | | 4) RSVP | |

OR

- Q. 6 A) Explain mobility management issue in wireless networks [8]
 B) Explain in details various parameters specified in the Quality of Service. [10]

SECTION II

- Q. 7 A) Explain various service classes of ATM network along with their attributes [8]
 B) Explain architecture of wireless network. State its applications. [10]

OR

- Q. 8 A) Explain 5 different delays encountered by ATM cell with the help of figure. [8]
 B) Explain how ATM network can transport IP packets [10]

- Q. 9 A) What are different QoS requirements of Voice and Video over IP? [8]
 B) Explain blocking probability in circuit switch network [8]

OR

- Q. 10 A) How the concept of queuing theory is used to analyze datagram networks [10]
 B) Explain circuit switched network in brief [6]

- Q. 11 A) Explain SSL in detail [8]
 B) Explain how firewall is implemented in the network [8]

OR

- Q. 12 A) Explain in detail PGP protocol. [8]
 B) What are overlay networks? What is the importance of overlay networks. [8]