

[Total No. of Questions: 12]

[Total No. of Printed Pages:2]

UNIVERSITY OF PUNE

[4364]-552

B. E. (Electronics Engineering) Examination - 2013

(Computer Network & Security(404207))(2008 Course)

[Time: 3 Hours]

[Max. Marks: 100]

Instructions:

- 1 Answer 3 questions from Section-I and 3 questions from Section-II
- 2 Answers to the two sections should be written in separate answer-books.
- 3 Neat diagrams must be drawn wherever necessary.
- 4 Figures to the right indicate full marks.
- 5 Use of logarithmic tables, slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.
- 6 Assume suitable data, if necessary.

SECTION -I

- Q.1 A Explain TCP/IP layers and their functions. 8
 B Differentiate between peer to peer network & client server network 4
 C Explain the term network architecture with suitable example. 4
- OR**
- Q.2 A Explain different service primitives. Compare connection oriented services & connectionless services. 8
 B Discuss various principles that are applied to arrive at seven layers of OSI-ISO model. Give reasons for the failure of this model. 8
- Q3 A Explain HTML programming & related TAGS in brief 6
 B How electronic mail systems work? Explain basic functions in electronic mail. 6
 C What is URL? Explain its component 4
- OR**
- Q. 4 A Write short note on: 16
 1. FTP
 2. TELNET
 3. SMTP
 4. DNS
- Q5 A Write short note on 6
 i). DHCP ii). ICMP
 B Explain distance vector routing. 6
 C What is congestion? Explain any one congestion control technique. 6
- OR**
- Q. 6 A Explain the function of network layers. What services are provided by network layer to transport layer. 6

B	Draw TCP header. Explain function of each field.	6
C	Compare IPv4 vs IPv6	6

SECTION II

Q. 7	A	Explain why CSMA/CD cannot be used in wireless LAN	4
	B	Differentiate between bridge & repeater	4
	C	Discuss in brief three methods used to enhance the performance of traditional Ethernet.	8

OR

Q. 8	A	Discuss any two Multiple access techniques.	8
	B	List the different framing methods and explain any one of them in detail.	8
Q. 9	A	What is cable modem? Explain.	6
	B	Compare & contrast a circuit switched and packet switched network.	8
	C	What is DSL? Explain.	4

OR

Q. 10	A	Explain Guided & Unguided Transmission media in detail.	9
	B	Compare various communication satellites.	9
Q. 11	A	What are the pros and cons of providing security?	4
	B	Explain in brief a model for network security.	8
	C	Explain DES algorithm	4

OR

Q. 12	A	What is public key cryptography? Explain RSA algorithm in detail.	8
	B	What is meant by encryption? Describe the private key cryptography.	4
	C	Compare Public key and Private key cryptography.	4