

END TERM EXAMINATION

SECOND SEMESTER [MCA] MAY-JUNE-2014

Paper Code: MCA-206

Subject: Advanced Computer Networks
(Batch 2010 Onwards)

Time: 3 Hours

Maximum Marks:60

Note: Attempt any five questions, including Q.no.1 which is compulsory.
Select one question from each unit.

(10x2=20)

Q1 Answer all the following questions briefly:-

- (a) What is CCK in IEEE 802.11b?
- (b) What is the role of DA and SA in FDDI fault tolerance?
- (c) What is header translation in IPv6?
- (d) What is source-based tree approach in routing?
- (e) List four trailer fields in the CS layer of AAL5.
- (f) List RIP shortcomings and their corresponding fixes.
- (g) What is the N² problem?
- (h) Name a protocol that uses a KDC for user authentication.
- (i) What is the purpose of the record protocol in SSL?
- (j) What is IKE?

Unit-I

- Q2 (a) List few goals of gigabit Ethernet design. Discuss any two gigabit Ethernet implementations. (5)
- (b) Discuss the MAC protocol for WLAN. (5)
- Q3 (a) What is Discrete multitone technique? (5)
- (b) Discuss the properties, features, and limitations of HIPPI protocol? (5)

Unit-II

- Q4 (a) What is the difference between available bit rate (ABR) and unspecified bit rate (UBR) services in ATM? (5)
- (b) Discuss UNI cell and NNI cell format. (5)
- Q5 (a) What is redirection concept in ICMP? Describe its message format with different code values. (5)
- (b) What is global unicast, link-local, and unique-local address in IPv6. (5)

Unit-III

- Q6 (a) Discuss four decision making strategies in DVMRP. (5)
- (b) Discuss Distance vector routing. What is two-node instability problem? (5)
- Q7 (a) List five types of OSPF packets. Discuss link state update packet. (5)
- (b) Discuss the mobility agent advertisement extension in mobile IP network. (5)

Unit-IV

- Q8 (a) Compare the transport and tunnel modes of IPSec. Which one ensures a higher security level and better scalability? (5)
- (b) TCP software is implemented as a finite state machine. Describe different states for TCP. (5)

Q9 Write short note on any two:-

(5x2=10)

- (a) Entity authentication
- (b) Kerberos
- (c) SHA-1
- (d) Digital Certificate
