M.Tech. (Sem. - 1ˢᵗ)
NETWORK SECURITY
SUBJECT CODE : CS - 503
Paper ID : [E0683]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours   **Maximum Marks : 100**

Instruction to Candidates:

1) Attempt any **Five** questions.

2) **All** questions carry equal marks.

Q1) Define the following terms and explain each of them.

(a) Adhoc networks

(b) Transport Layer.

(c) Route Discovery Algorithms.

(d) Comparison between TCP/IP and OSI model.

Q2) Privacy of personnel documents and transactions is major area of concern in all the applications. How digital Signatures and digital certificates help in reducing the privacy concerns. How these technologies work. Take an example to make your case.

Q3) (a) Define and differentiate between Repeater, Bridge, Router and Gateway.

(b) Discuss Tunneling, Agent Discovery and Name servers in detail.

Q4) Differentiate Between.

(a) protocols between High speed LANs and protocols between wireless LANs .

(b) Gigabit Ethernet and wireless Ethernet.

Q5) (a) Mobility in the nodes creates a lot of issues in the network under consideration. List various issues caused by mobility of nodes. How the problems can be overcome.

(b) How the security problems are tackled in mobile networks. Discuss recent developments for increasing the security of mobile applications.

Q6) How TCP/IP has evolved. Give the historical background. What are the TCP extensions for high speed networks? How TCP/IP has been restructured for latest applications. Use proper diagrams and examples.

Q7) Discuss the following in relation to Ipv6

(a) Neighbor discovery.

(b) Auto configuration.

(c) Application programming interface for ipv6.

(d) Routing.

Q8) Write detailed note on the following.

(a) SSL

(b) ADSL.

(c) Authentication header.

(d) Mobile Ip

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