

IV B.Tech II Semester Regular Examinations, Apr/May 2006
INTERNET TECHNOLOGIES
(Information Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) List the major disadvantages with the layered approach to protocols.
- (b) Using the layer models describe the ordering and delivery of a Pizza, indicating the interactions at each level. Shown in figure 1. [10+6]

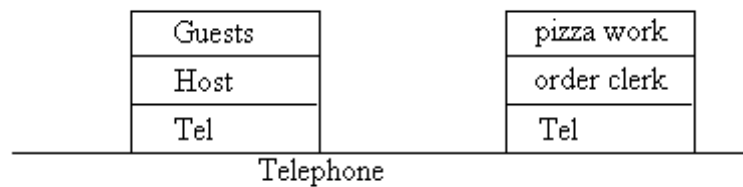


Figure 1:

2. (a) Consider a packet switching network of N nodes connected by Star, Loop and Fully connected. Give the average number of hops between stations for each case.
- (b) Discuss
 - i. X.25
 - ii. Frame relay architecture. [6+10]
3. (a) Write a short notes on Ethernet networks
- (b) Discuss in detail 10 Gbps ethernet. [8+8]
4. (a) Discuss the basic objectives of traffic & congestion control in ATM.
- (b) How the objectives can be achieved.
- (c) How ABR traffic is managed in ATM. [6+5+5]
5. (a) Discuss the basic requirements of multicasting.
- (b) Discuss path vector routing. [8+8]
6. (a) What is Differentiated Service? Explain briefly the key characteristics and uses of differentiated services?
- (b) What is a Differentiated Domain? Explain its operations? [8+8]
7. Give a brief description
 - (a) DS configuration and operation

- (b) Assured forwarding PHB
- (c) DS Code point. [6+5+5]
- 8. (a) Discuss how end to end encryption combined with link encryption would still allow enough traffic analysis to be dangerous.
- (b) Discuss the security implications of key distribution centers. [8+8]

IV B.Tech II Semester Regular Examinations, Apr/May 2006
INTERNET TECHNOLOGIES
(Information Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Discuss in brief the history of Computer Networks
(b) Discuss in brief about ATM & Broadband ISDN. [8+8]
2. (a) What is the format of ATM architecture? Discuss
(b) What are the different categories of ATM services? [8+8]
3. (a) Write a short notes on Ethernet networks
(b) Discuss in detail 10 Gbps ethernet. [8+8]
4. Discuss the functionality of
 - (a) Resource management using virtual path
 - (b) connection admission control
 - (c) parameter control usage. [6+5+5]
5. (a) Give the OSPF packet format with discussion
(b) What are the RIP limitations
(c) What is adaptive routing. [6+5+5]
6. (a) Explain the FIFO Queuing discipline. Discuss its advantages and disadvantages?
(b) Explain the weighted fair queuing discipline in detail? [8+8]
7. Give a brief description
 - (a) DS configuration and operation
 - (b) Assured forwarding PHB
 - (c) DS Code point. [6+5+5]
8. Discuss about:
 - (a) Public Key encryption
 - (b) Digital signature
 - (c) RSA algorithm. [6+5+5]

IV B.Tech II Semester Regular Examinations, Apr/May 2006
INTERNET TECHNOLOGIES
(Information Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Discuss in brief the history of Computer Networks
(b) Discuss in brief about ATM & Broadband ISDN. [8+8]
2. (a) Consider a packet switching network of N nodes connected by Star, Loop and Fully connected. Give the average number of hops between stations for each case.
(b) Discuss
 - i. X.25
 - ii. Frame relay architecture. [6+10]
3. (a) What is the need for flow control and error control.
(b) Discuss the various flow and error control techniques of DLL. [8+8]
4. (a) Discuss HDLC protocol
(b) A world wide web server is usually set up to receive relatively small messages from its clients but to transmit potentially very large messages to them. Explain, then, which type of ARQ protocol would provide less of a burden to a particularly popular WWW server. [8+8]
5. (a) Give the OSPF packet format with discussion
(b) What are the RIP limitations
(c) What is adaptive routing. [6+5+5]
6. (a) What is ISA? Explain in detail?
(b) Explain the functions used by ISA to manage congestion and QoS support? [8+8]
7. (a) What are the desirable properties for real time communications.
(b) What is the difference between hard and soft real time applications. [8+8]
8. What is simple network management protocol? Discuss. [16]

IV B.Tech II Semester Regular Examinations, Apr/May 2006
INTERNET TECHNOLOGIES
(Information Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Give the comparison of Packet switching & frame relay networks
(b) Do you support Source routing ? Why? [8+8]
2. (a) Consider a packet switching network of N nodes connected by Star, Loop and Fully connected. Give the average number of hops between stations for each case.
(b) Discuss
 - i. X.25
 - ii. Frame relay architecture. [6+10]
3. (a) Write a short notes ATM cell header format
(b) What are the uses of Virtual Channel connection. [8+8]
4. Discuss the performance issues of TCP over ATM. [16]
5. (a) Give the OSPF packet format with discussion
(b) What are the RIP limitations
(c) What is adaptive routing. [6+5+5]
6. (a) What are the design requirements for IP based internets?
(b) Discuss the ISA approach for the QoS support over IP based Internets? [8+8]
7. (a) List the design goals of RSVP.
(b) Explain label stacking.
(c) What is the purpose of RTP. [6+5+5]
8. Discuss about:
 - (a) Public Key encryption
 - (b) Digital signature
 - (c) RSA algorithm. [6+5+5]
