BACHELOR IN INFORMATION TECHNOLOGY (BIT)

Term-End Examination

June, 2010

00068900

CSI-13 : NETWORKING

Time : 3 hours   *Maximum Marks : 75*

Note :   *There are two sections in this paper. All questions from Section-A are compulsory. Answer any three questions from Section-B. Multiple Choice questions carry one mark each.*

SECTION - A

1. Which layer can use the trailer of the frame for error detection ?   **1x10=10**
   (a) Transport   (b) Network
   (c) Data link   (d) Physical

2. Which transmission share the channel capacity by both communicating devices at all time ?
   (a) Half Duplex   (b) Simplex
   (c) Full Duplex   (d) Half Simplex

3. Which of the following topology requires a central controller ?
   (a) Bus   (b) Ring
   (c) Star   (d) Mesh

4. Which of the following layer of OSI model handles "Compression" ?

(a) Physical   (b) Presentation

(c) Network   (d) Data link

5. Which of the following switching technology is best suited for data communication ?

(a) Circuit   (b) Message

(c) Both (a) and (b)   (d) Packet

6. Technology which made B-ISDN possible is :

(a) TCP/IP

(b) OSI

(c) Asynchronous Transfer Mode

(d) Synchronous Transfer Mode

7. Gateways are mainly defined as :

(a) Service provider

(b) Protocol converter

(c) Protocol provider

(d) Service converter

8. Which of the following is not a standard user group of Windows NT ?

(a) Primary operator   (b) Replicator

(c) Backup operator   (d) Power user

9. Which of the following permission may, the owner of directory, not grant to the users ?
(a) List
(b) No Access
(c) Add and Read
(d) Encrypt

10. Which of the following standard is for MAN ?
(a) IEEE 802.2
(b) IEEE 802.3
(c) IEEE 802.5
(d) IEEE 802.6

11. A software company named "Hindsoft" wants to design its network. The company has three departments at different locations in India, like Administration in Bangalore, sales in Bombay and Development at Delhi. Each Department has 30 computers, 4 printers and 2 FAX machines while administration department is working as the central office to maintain all databases and main server.

The main server is connected with the servers of other two departments. Give answers of the following, based on the network specification defined above :

(a) Draw and explain the best suited physical and logical topology.   **4**

(b) Justify the need of each network device you may use in the network.   **4**

(c) Which cable is best suited for this company ? Compare merits and demerits of all the available cables to justify your answer.   **5**

(d) Which operating system is best for this company ? Justify your answer.   **4**

(e) Explain the best hardware and software you should use in the network to implement the security.   **3**

SECTION-B

Answer *any three* questions from this section :

12. (a) Explain any two functionalities of each of the following :   6

    (i) Data link layer of OSI model

    (ii) Internet layer of TCP/IP model

    (iii) Session layer of OSI model   9

  (b) What are print servers ? Why do we need them ? Explain the print queue management.

13. Write three difference between each of the following pairs :   3x5=15

  (a) Fiber optics and Coaxial cable

  (b) Bridge and Gateways

  (c) Connection Oriented and Connectionless Services

  (d) Peer to Peer and Client-Server Networking

  (e) ATM and Frame Relay

14. (a) What are the main difference between proxy server and Firewall ? Explain different types of firewalls that use different strategies for protecting network resources.   8

  (b) What is meant by Trust Relationship ? Explain the Domain Trust Relationship and Alternative Domain Trust Relationship.   7

15. (a) What is Token Ring ? How does it work ?   **9**
In what way is it different from Ethernet ?
Also, explain the purpose of fields in Token
Ring frame header.

    (b) Explain the "Resource Password Security   **6**
Model".

16. (a) Why disk administration is an important   **9**
part of network Management ? Does it
provide security and reliability ? Also,
explain the important options provided by
disk administrator in Windows NT.

    (b) Explain the working of Token Bus Network   **6**
with the help of a suitable diagram. What
happens if a token is lost or a duplicate
token appears on the Token Bus ?

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