CSI-13

BACHELOR IN INFORMATION TECHNOLOGY

Term-End Examination

00817

December, 2011

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**. Question No. **1** - **10** carry **1** mark each.*

SECTION - A

1. IEEE 802.2 is a _____ protocol.

    (a) LLC (b) TCP

    (c) MAC (d) ICC

2. Which of the following is not a valid wiring scheme ?

    (a) 10 BASE FL (b) 100 BASE T4

    (c) 100 BASE TX (d) 100 BASE RL

3. Which of the following function does not belong to Data Link Layer ?

    (a) Addressing (b) Error Control

    (c) Flow Control (d) Multiplexing

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4. What is a size of CRC field in Token Ring frame ?

    (a)   2 bytes   (b)   4 bytes

    (c)   6 bytes   (d)   1 byte

5. Remote Procedure Call is _____.

    (a)   Client/Server Mechanism

    (b)   Peer to Peer Mechanism

    (c)   Both (a) and (b)

    (d)   None of the above

(Question no. 6 to 10)

State **True/False** for the following statements :

6. RJ-45 is a type of connector.

7. Radio Broadcasting is an example of Full duplex communication.

8. Session layer of OSI Model handle encryption.

9. Routers operate at Network layer of OSI Model.

10. IEEE standard for MAN is IEEE 802.9.

11. Assume you are designing a network for a university, which has 20 lecture rooms, one Administration department, 40 teachers rooms and one management department. Each Lecture room and Teacher room is having a computer, while administration and management department has 20 computers, 10 printers and 2 FAX machine each. Administration is working as the central office which maintain all databases and main server. The main server is connected to all computers and servers of other departments. Give answers of the following, based on the network defined above :

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

   (b) Justify the need of each hardware device you may use in the network at different locations.   **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 hardwares and softwares that can be used 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) Fast ethernet

    (ii) Transport layer

    (iii) Gateway

    (b) What is Token Ring ? How does it work ? **9**
        Explain the fields of Token Ring Frame Header.

13. Write *three* differences between each of the following pairs : **5x3=15**

    (a) IEEE 802.4 and IEEE 802.5

    (b) Virtual circuit and Datagram

    (c) Simplex and Full Duplex Communication

    (d) Bridge and Gateway

    (e) Fiber optics and Twisted pair

14. (a) Windows NT supports a range of standard **8**
        user groups. What are these groups and
        what are their access privileges in Windows
        NT ?

    (b) What is application level proxy server ? **7**
        How does it help to provide security in
        Networks ? Explain the layer structure of
        proxy server with the help of diagram.

15. (a) Draw and explain the NTRS Master file   8
table structure and define its components.

(b) What is print server ? Explain the processes   7
of print queue management.