Past Papers Questions:

3.10 Common Network Environments, Connectivity and Security Issues

May/June 2002

October/November 2002

May/June 2003

3 Data security and privacy are major problems in using wide area networks. Describe methods that can be used to minimise these problems. [9]

6 (c) A company has a number of offices around the world. Describe ways in which computers can be used to aid communication between the company's offices. [8]

October / November 2003

7 A research department in a teaching hospital needs to share the results of its research with other, interested, bodies and individuals. At present research is published and discussed via the Internet.

(a) The National Association of Teaching Hospitals (NATH) is considering the use of a private intranet for such communications.
Discuss the advantages and disadvantages of using an intranet in this example. [6]

May/June 2004

8 Explain the part played in network systems by
(i) switches;
(ii) routers;
(iii) bridges;
(iv) modems. [8]

October/November 2004

1 A user has just received and read a message via electronic mail. Describe four typical facilities of electronic mail which would help the user to manage the message. [8]

May/June 2005

5 An organisation manages an intranet.
(a)   (i) Explain how an intranet differs from the internet. [2]

(ii) Pages on the intranet are produced using hypertext mark up language (HTML). Describe three HTML methods that can be used to enhance free text to make the pages more user friendly. [6]

October/November 2005

7 (a) Some messages which are passed on a network are confidential.
State the meanings of the terms
(i) encryption,
(ii) message authentication
and explain how they are used to maintain confidentiality of messages. [6]

(b)   (i) Explain how
                (I) partitioning,
                (II) duplication
        may be used to distribute data on a network.   [2]

        (ii) Explain the implications, to both the data and the network manager, of duplicating the
        data.   [4]

May/June 2006

4 A sales manager for a company is responsible for a large sales team working over a wide
geographical area. Members of the sales team communicate with each other by use of email.
Describe four features of email that the manager finds useful, giving an example of the use to
which each will be put.   [8]

October/November 2006

7   (a) Explain what is meant by a hypertext mark up language.   [2]

         (b) Describe three features of a hypertext mark up language that could be used when designing
         a web page.   [6]

May/June 2007

4 A retail business is to open a web site which will allow customers to order and pay for goods.
Explain the problems that can arise due to the confidential nature of some of the data. State ways
of overcoming these problems.   [8]

October/November 2007

3 A retail business specialises in souvenir items for tourists. It has a number of shops in different
cities. Discuss how the Internet can be used in this business.   [6]

13 A mail order company employs a number of computer operators who take orders by telephone.
There is also a warehouse department from which orders are dispatched. The management staff
interrogate the data to inform their decisions. The computers in all three areas are networked with
a central storage facility.
        (a) Discuss, the different topologies and media available for transmitting data around the
        network, with reference to suitability for this example.   [8]
        (b) Describe how various users can be given different access to the data held on the central
        database.   [2]

May/June 2008

2 The medical notes of patients who attend a medical centre are kept on a computer system.
        (b) The computer systems of all the medical centres in the area are connected to the area
        hospital. This means that patients can attend any centre and the hospital can access any record
        in case of emergency.

Explain why the administrators of the system chose to use an intranet for communication of data rather
than the Internet.   [4]