BSc. (Hons) Business Information Systems
Part Time
BIS1212 – TELECOMMUNICATIONS AND NETWORKING IN BUSINESS
Resit Examinations for 2002 – 2003 / Semester 1

Duration: 2 ½ hours

Instructions to Candidates:

1. Answer ALL questions
2. Always start a new question on a fresh page.
3. Each question is of the same weight 20 marks
4. The total marks are 100.

This question paper contains 5 questions and 4 pages.
Question 1

i) Describe the functions and use of
   a) analog line emulator
   b) emulator
   c) performance monitor
   d) log files
   e) Inventory software

   [10]

ii) Describe a situation in which it would be beneficial for a network manager to take control of a workstation’s keyboard.

   [4]

iii) Compare the Simple Network Management Protocol (SNMP) and the Common Management Information Protocol (CMIP).

   [6]

Question 2

i) State the role and services provided by the following servers in a network.
   a) Global Catalog Servers
   b) Name Servers
   c) Domain Controllers
   d) DHCP Servers
   e) Remote Access Servers
   f) File and Print Servers

   [15]

ii) State the role and services provided by 2 other type of servers than those in the list in i).

   [5]
Question 3

a) What is a Virtual Private Network? [3]

b) What is a firewall? [3]

c) What is the role of a gateway in a WAN? [4]

d) Describe three potential problem areas when setting up an international network. [10]

Question 4

You have a file server with 600 MB of data. If you use 1.4 MB disks to back up this data.

a) How many disks are necessary? [3]

b) Your backup utility provides a data compression ratio of 1.8:1 for your files, which means that on average, 1.8 bytes can be compressed into 1 byte. Using this compression ratio, how many disks are required? [5]

c) List the advantages of a more suitable backup medium. [3]

d) Draw a table showing different Primary Backup Technologies and their capacities. [9]
Question 5

a) Define and give an example of a(n)

(i) dotted quad IP address
(ii) URL
(iii) DNS

b) Define the terms subnetting and masking?

c) Find the subnetwork address for the following situation:

   IP address: 45 123 21 8
   Mask: 255 192 0 0

   [6]

   [4]

   [6]

   [4]

d) What is the difference between a physical address and a logical address?