Level 3 ICT systems and network management (7266/7267-506/7540-368)

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e-Quals
Assignment guide for Candidates
Assignment A

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Level 3 ICT systems and network management (7266/7267-506/7540-368) Assignment A

Introduction – Information for Candidates

About this document

This assignment comprises all of the assessment for Level 3 ICT systems and network management (7266/7267-506/7540-368).

Health and safety

You are asked to consider the importance of safe working practices at all times.

You are responsible for maintaining the safety of others as well as your own. Anyone behaving in an unsafe fashion will be stopped and a suitable warning given. You will **not** be allowed to continue with an assignment if you compromise any of the Health and Safety requirements. This may seem rather strict but, apart from the potentially unpleasant consequences, you must acquire the habits required for the workplace.

Time allowance

The recommended time allowance for this assignment is **4 hours**.

Level 3 ICT systems and network management (7266/7267-506/7540-368) Candidate instructions

Time allowance: 4 hours

Assignment set up:

This assignment is made up of **two** tasks

- Task A – Devise a preventative maintenance programme
- Task B – Set up and monitor a network

Scenario

You are the network manager for a small company whose network appears to have a number of operating problems. The assignment is in two parts. Task A is concerned with the network described on the information sheet and Task B is concerned with the network in the assessment room.

Task A – Devise a preventative maintenance programme

Your Assessor will give you a description of the network, a set of network performance data and a recent System Fault Report Log. Analyse the data and answer the following.

1 State if performance or another problem is indicated by the data. If so, explain the nature of the problem and the data values that lead you to that conclusion.

2 Identify **two** possible root causes of any problems indicated in Task A1.

3 In light of your answer to Task A1, make a recommendation as to immediate action to solve any problems.

Q1 Describe **three** possible network problems that could be identified with the use of network monitoring tools.

4 Devise an **eight**-point preventative maintenance programme for the network described.

Q2 State **seven** items of information that should typically be included in system operation records. Describe the properties of **each**.

Task B – Set up and monitor a network

The remainder of the assignment should be carried out using the client-server network and specification provided by your Assessor.

Where possible, you should produce screen prints as evidence at each stage.

1 Examine the basic network configuration and record the protocols used.

2 Make any necessary adjustments to the protocol configuration in order to optimise system performance and security. Record the new settings.

3 Using passwords, user names and data files, supplied by your Assessor, set up **nine** user folders in **three** equal groups. Name the groups 'Sales', 'Accounts' and 'Administration'.

4 Set up the access rights for each user, ensuring that users are taken directly to their own group folder at log-on and **cannot** see the other group folders. Create a log-on script to achieve this.

5 Designate **one** user from **each** group as the (group) manager and give **each** access to the individual folders in their own group. Give the managers access to **each** of the other group folders, but **not** the individual folders.

6 Design a test matrix and use it to test the configuration using data files supplied by your Assessor.

7 Each user is required to have a separate email address to enable them to receive emails into their own personal folders. Set up the system to allow this facility.

8 Test the email configuration by sending emails with an attachment supplied by your Assessor.

Q3 Outline **three** of the network manager's responsibilities under the current data protection legislation.

Q4 Identify **three** reasons for restricting access to a network.

Q5 Name and describe the function of **two** methods of preventing unauthorised access to a network.

9 Set up a network monitoring utility to monitor **four** network parameters for which data was provided in Task A.

10 Establish a benchmark set of data.

Q6 State **four** factors to be considered when specifying back-up procedures and briefly explain them.

Q7 Name the **seven** layers in the OSI seven-layer model.

Q8 Name **four** Internet protocols and state their normal use.

When you have finished working:

- Sign each document above your name and label all removable storage media with your name.
- Hand all paperwork and removable storage media to your assessor.

If the assignment is taken over more than one period, all paperwork and removable media must be returned to the test supervisor at the end of each sitting.

End of assignment

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