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

www.cityandguilds.com/e-quals07
August 2009
Version 1.1

e-Quals
Assignment guide for Candidates
Assignment B

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

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 **four** tasks

- Task A – evaluate network performance data and report on findings and make recommendations
- Task B – create a routine maintenance procedure, schedule for the network and carry out the initial maintenance procedure
- Task C – set up network system users and a folder structure
- Task D – monitor network performance and establish a benchmark

Scenario

You are employed by an Internet based computer component retailer to look after its ICT systems. The company is undergoing a reorganisation; you have been tasked with evaluating the current system and reorganising the security policy.

You will be given information and performance figures for the existing system and information on access permissions required for the re-organised network. You will also be given equipment that represents part of the revised system.

Task A – Evaluate network performance data and report on findings and make recommendations

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

1 Analyse the data. If performance or another problem is indicated by the data, 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 and give reasons for your decision.

3 On the answer sheet, write **three** additional questions to ask **any** member of the company's staff in order to clarify the information given, and to gain a better indication of the root cause of the problems.

4 Discuss the questions with your Assessor and obtain additional information to assist in the faultfinding process.

5 In the light of Tasks A1-4, and the problem description in the scenario, compile a short report making recommendations as to corrective actions to be taken

- immediately (**one**)
- in the long term as a permanent fix (**two**).

Task B – Create a routine maintenance procedure, schedule for the network and carry out the initial maintenance procedure

The remainder of the assignment will involve using a system and additional information provided by your Assessor.

1 Carry out a physical audit of the system, gathering sufficient information to add to that already provided by your Assessor, to produce a complete set of system records.

2 Create an **8-point** routine maintenance procedure and schedule for the network that meets Health and Safety regulations and minimises user disruption. Print a copy of the schedule for later use.

3 Carry out **four** actions in the maintenance procedure as directed in the schedule created in Task B2. Record the results on the printed schedule.

Task C – Set up network system users and a folder structure

Q1 Describe, with **two** reasons, a suitable back-up system that could be used by the company. Include the medium and the number, type and frequency of back-ups.

Q2 State with reasons, how many separate recording media/folders will be required for one back-up cycle and devise a unique numbering system for them.

1 Design a matrix guide for the back-up system showing the schedule/types of back-up to be carried out over a one-month cycle. This should be suitable for any operator to tell which labelled medium to use on any given day, what type of back-up to perform and where to store the back-up. Assume the system is in use five days a week.

Q3 Give **two** reasons why it is poor practice to carry out a full daily back-up.

Q4 State **six** items of information that should appear on the operational record for a machine (workstation and/or server) that is part of a network.

Q5 When choosing a location in which to store magnetic and/or optical back-up media, state **five** environmental factors that need to be assessed.

Q6 Briefly describe **three** types of hardware that are commonly used to make back-ups of data held on a system. State **one** advantage and **one** disadvantage for **each**.

Task D – Monitor network performance and establish a benchmark

1 Set up a network monitoring utility to monitor **four** network parameters.

2 Establish and record a benchmark set of data.

Q7 Briefly describe **three** security risks that could apply to the above system and suggest **one** method for reducing **each** risk.

Q8 Briefly describe **three** commonly used network transmission media and give **one** typical use for **each**.

Q9 Name **four** protocols used in internetworking 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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