About City & Guilds
City & Guilds is the UK's leading provider of vocational qualifications, offering over 500 awards across a wide range of industries, and progressing from entry level to the highest levels of professional achievement. With over 8500 centres in 100 countries, City & Guilds is recognised by employers worldwide for providing qualifications that offer proof of the skills they need to get the job done.

City & Guilds Group
The City & Guilds Group includes City & Guilds, ILM (the Institute of Leadership & Management) which provides management qualifications, learning materials and membership services, NPTC which offers land-based qualifications and membership services, and HAB (the Hospitality Awarding Body). City & Guilds also manages the Engineering Council Examinations on behalf of the Engineering Council.

Equal opportunities
City & Guilds fully supports the principle of equal opportunities and we are committed to satisfying this principle in all our activities and published material. A copy of our equal opportunities policy statement is available on the City & Guilds website.

Copyright
The content of this document is, unless otherwise indicated, © The City and Guilds of London Institute 2009 and may not be copied, reproduced or distributed without prior written consent.

However, approved City & Guilds centres and learners studying for City & Guilds qualifications may photocopy this document free of charge and/or include a locked PDF version of it on centre intranets on the following conditions:

- centre staff may copy the material only for the purpose of teaching learners working towards a City & Guilds qualification, or for internal administration purposes
- learners may copy the material only for their own use when working towards a City & Guilds qualification

The Standard Copying Conditions on the City & Guilds website also apply.

Please note: National Occupational Standards are not © The City and Guilds of London Institute. Please check the conditions upon which they may be copied with the relevant Sector Skills Council.

Publications
City & Guilds publications are available on the City & Guilds website or from our Publications Sales department at the address below or by telephoning +44 (0)20 7294 2850 or faxing +44 (0)20 7294 3387.

Every effort has been made to ensure that the information contained in this publication is true and correct at the time of going to press. However, City & Guilds’ products and services are subject to continuous development and improvement and the right is reserved to change products and services from time to time. City & Guilds cannot accept liability for loss or damage arising from the use of information in this publication.

City & Guilds
1 Giltspur Street
London EC1A 9DD
T +44 (0)20 7294 2800
F +44 (0)20 7294 2400
www.cityandguilds.com
learnersupport@cityandguilds.com
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction – Information for Candidates</td>
<td>2</td>
</tr>
<tr>
<td>Level 3 ICT systems and network management (7266/7267-506/7540-368)</td>
<td>3</td>
</tr>
<tr>
<td>Candidate instructions</td>
<td>3</td>
</tr>
</tbody>
</table>
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.
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