# Level 3 Maintain ICT equipment and systems 3 (7266/7267-510/7540-328)

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

## e-Quals
## Assignment guide for Candidates
Assignment D

**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, © City & Guilds Limited 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 © City & Guilds Limited. 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 time of publication. 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 responsibility for any 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


| | |
|---|---|
| Introduction – Information for Candidates | 2 |
| Level 3 Maintain ICT equipment and systems 3 (7266/7267-510/7540-328) | 3 |
| Candidate instructions | 3 |

# Level 3 Maintain ICT equipment and systems 3 (7266/7267-510/7540-328) Assignment D

Introduction – Information for Candidates

## About this document

This assignment comprises all of the assessment for Level 3 Maintain ICT equipment and systems 3 (7266/7267-510/7540-328).

---

## 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 Maintain ICT equipment and systems 3 (7266/7267-510/7540-328) Candidate instructions

## Time allowance: 4 hours

## Assignment set up:

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

- Task A – Devise maintenance schedules for two different networks
- Task B – Devise a maintenance schedule for laptops
- Task C – Diagnose and fix a base unit fault

## Scenario

You work as an ICT support technician in a factory. The company has two separate networks, one for administration sales and marketing and one for production support. The production support network has most of its 25 workstations in the main production area which has a dust-laden atmosphere. Much of the cabling is laid on the surface in enclosed ducting, but it passes through areas of high electromagnetic interference (EMI). The administration system is entirely in a normal office environment.

The maintenance engineers who look after the machinery in the factory use laptops to store their maintenance records and to run test software for the production machines. They have wireless Internet links so they can download information and software updates from the manufacturers' websites.

Read all of the instructions carefully and complete the tasks in the order given.

## Task A – Devise maintenance schedules for two different networks

Your Assessor will give you a description of the systems you will be working with in Tasks A and B.

1 For **each** network, identify **three** different environmental aspects or type of use that could cause a reduced performance and/or reported faults.

2 Briefly describe the type of information you would need to help resolve **each** of the above issues and list the best sources of the information in each case.

3 Devise **two** separate maintenance plans, **one** for **each** of the two networks taking account of their different modes of use. Explain the differences between the two plans.

Q1 Explain the terms **preventative**, **predictive** and **corrective** maintenance.

## Task B – Devise a maintenance schedule for laptops

1 List the additional technical and security issues that are introduced by using laptops as described in the scenario.

2 Devise a maintenance plan for these laptops including any normal maintenance and the additional items needed to address the issues listed in Task B1. The plan must include at least **one** test. Categorise **each** of the maintenance operations as predictive, preventative or corrective and indicate clearly when and how often **each** operation should take place.

Q2 Briefly describe the type of information you would need to help resolve **each** of the above issues and list the best sources of the information in each case.

Q3 Give **three** other items of information that might need to be evaluated during routine maintenance.

## Task C – Diagnose and fix a base unit fault

You have been asked to look at a problem on a networked workstation. Your Assessor will provide brief symptoms and sufficient equipment to enable you to test and repair the base unit.

1 Write down **four** relevant questions to ask your Assessor to build up sufficient information to allow you to fix the reported fault in the base unit.

2 Obtain answers to the above questions from your Assessor. Record the answers to your questions and all of the details of the following testing, fault finding and repair tasks.

3 Using the information you have been given, decide and write down the further information you will need to find from the system to help you decide what the problem is, and how you are going to find it.

4 Carry out the necessary procedures and tests to obtain the information you need. Decide what the problem is.

5 Using additional information and/or materials obtained from your Assessor, take the necessary action to resolve the problem.

6 Select and carry-out post-repair tests and checks to confirm the problem has been resolved.

7 Re-configure the base unit according to instructions supplied by your Assessor and record the settings.

8 Remove any test software and shut down the system.

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**

**Published by City & Guilds**
**1 Giltspur Street**
**London**
**EC1A 9DD**
**T +44 (0)20 7294 2468**
**F +44 (0)20 7294 2400**
**www.cityandguilds.com**

City & Guilds is a company registered in England and Wales (company number 16513878)