Level 3 Testing ICT systems 3 (7540-321/7630-352)

Systems and Principles
Assignment guide for Candidates
Assignment B

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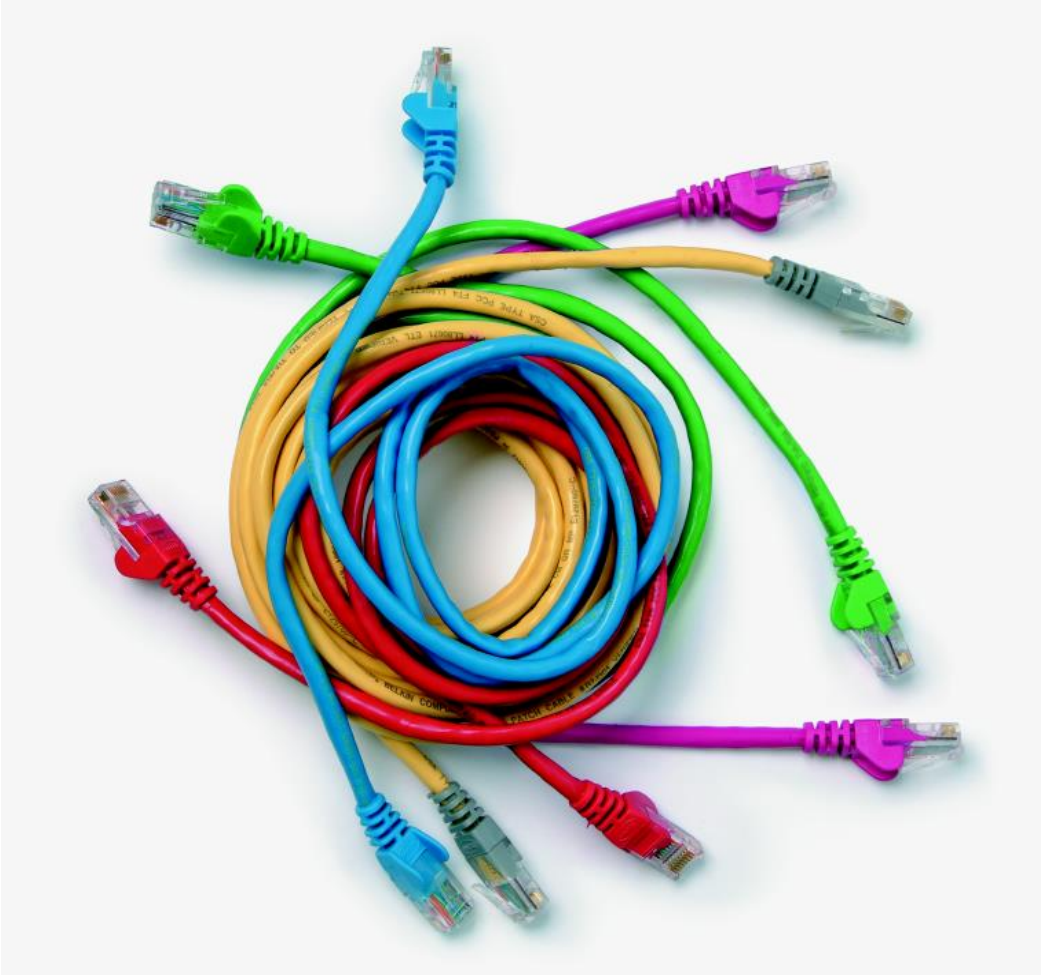

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Level 3 Testing ICT systems 3 (7540-321/7630-352)
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Introduction – Information for Candidates

About this document

This assignment comprises all of the assessment for Level 3 Testing ICT systems 3 (7540-321/7630-352).

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 **5 hours**.

Level 3 Testing ICT systems 3 (7540-321/7630-352)

Candidate Instructions

Time allowance: 5 hours

Assignment set up:

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

- Task A – Gather system information and design a test plan
- Task B – Carry out a planned test schedule
- Task C – Compile a test report

Scenario

You have recently been offered the post of ICT system support supervisor for a 24-hour customer call centre – part of a mail order company. The call centre manager has expressed concern over the frequency of system failures and the general overall slow performance of the system at certain times.

Your first task in your new post will be to design a comprehensive test plan to evaluate the system integrity and performance, and to identify problem areas. You will then be tasked with implementing the test plan and drawing conclusions from the results.

The call centre is staffed by 150 helpdesk operators, working in three 8-hour shifts, 6 days a week, with a break from 2000 hrs Saturday to 0600 Monday. In addition to 55 help desk terminals, there are a further 20 administrative and managerial workstations, which are in use 5 days a week, Mon – Fri 0900-1700. Your Assessor will provide further technical details – the only details available about the system are those that have been supplied by your Assessor.

Task A – Gather system information and design a test plan

1 Using the details given in the scenario and the information provided by the Assessor, devise a comprehensive test plan for the complete system. The plan should take into account:

a) the system, or relevant parts of it, must remain operational during the working times stated in the scenario – you must maintain a minimum of 45 operational helpdesk terminals
b) all data within the system must remain live, accessible and secure at all times, although it may be copied. Copies must also remain secure at all times
c) any customer access to the product database via the Internet may be taken off-line for a maximum of one hour at a time, maximum twice in any 24 hours
d) no more than five administrative and managerial workstations to be off-line during their working hours
e) you will be permitted to call in assistance for software application testing only

The plan must cover all major operational aspects of the system and should include **six** tests

and **six** monitoring operations. Plan details should include:

f) aims of the test programme
g) tests required and monitoring operations
h) reasons for each test and monitoring operation
i) differentiate between whole system and system component tests
j) tests that address functionality, capacity and security
k) tests that could affect data security and measures to avoid problems
l) diagnostic software and hardware required
m) time allocations for each test including reasons why a particular day/time has been selected
n) additional technical assistance required.

Task B – Carry out a planned test schedule

The Assessor will supply you with a typical ICT workstation. This represents one of the administration workstations referred to in Task A.

(Please complete Tasks B1 and B2 using the Answer Sheet provided.)

1 List **three** suitable questions you would ask the end user in order to gain extra information.

2 Discuss your questions with the Assessor and record any additional information gained from your discussion.

3 Carry out a system audit and record details on the System Audit Form. Identify system hardware and software configuration settings and record the details on the System Audit Form.

4 Select appropriate hardware and software tests from the plan devised in Task A. Record them in the test column on the appropriate Test Report.

5 Note any applicable tests that may affect existing workstation data and the measures to be taken to prevent loss or corruption of this data. Record these on the appropriate Test Report.

6 Take appropriate action to safeguard the system state of the workstation. Take screen prints.

7 Using the software tools detailed on the test plan, implement the test plan and record the results on the appropriate Test Report.

8 Note on the appropriate Test Report any test results that are not as expected.

Task C – Compile a test report

1 Using the data collected in Tasks A and B, compile a short Results Report detailing:

a) any faults found during the tests
b) recommended repair action and/or action carried out to allow the tests to continue
c) actual system performance compared with expected performance
d) **two** recommended upgrade/modification options to improve performance.

2 (Please complete Task C2 using the Answer Sheet provided.)

State the purpose and function of the following types of software:

- Burn-in
- Stress test.

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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