Level 2 Testing ICT systems 2 (7266/7267-405/7540-231)

e-Quals
Assignment guide for Candidates
Assignment A

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Level 2 Testing ICT systems 2 (7266/7267-405/7540-231)
Assignment A

Introduction – Information for Candidates

About this document

This assignment comprises all of the assessment for Level 2 Testing ICT systems 2 (7266/7267-405/7540-228).

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 2 hours.

Level 2 Testing ICT systems 2 (7266/7267-405/7540-231)
Candidate instructions

Time allowance: 2 hours

Assignment set up:

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

- Task A – prepare the system for testing and then run a diagnostic test on the system
- Task B – fix **one** problem that has been found, carry out basic functional tests and check for malware on the system
- Task C – compile and produce a report covering what you have done and found during the previous two tasks

Scenario

You work as a system support technician in a large call centre. Your supervisor has been asked to provide a PC workstation for a temporary manager, but has not been allowed to purchase or build a new one. He has found a spare system in a store room but has no idea if it works or what its specification is. Your task is to find out this information, to test it to see if it works well enough for the manager to use and to provide a report of your test results. If you find a fixable fault, you will be asked to apply a simple fix.

Hand in your written answers on the answer sheet provided**.**

Task A – Prepare the system for testing and then run a diagnostic test on the system

You will be given some diagnostic software to use for this task.

1 Carry out an external and an internal visual inspection of the system.

2 Identify, record and resolve any problems on the System Hardware Test Report provided.

3 Boot up the system and find out the information requested on the recording sheet marked 'System Information'.

4 Check the details obtained in Task A1 against the system requirements for the diagnostic application. Report the compatibility problems accurately.

5 Prepare the system for testing:

a) close unnecessary programs including those such as anti-virus programs that may have auto-started on boot-up
b) back up data files (as detailed by your Assessor).

6 Power up all connected peripherals (printer, scanner etc).

7 Run the test software and set the test parameters as instructed by your Assessor. Ensure that the results and any recommendations are saved to a text log file.

8 Initiate the test process and monitor it, following any instructions that appear on the screen.

Q1 Briefly describe the function of the following that are commonly supplied with an operating system.

a) **Two** test and maintenance utilities used on hard drives.
b) **One** utility for the protection of data.

Q2 Briefly describe the features and functions of typical diagnostic software.

a) Memory tests.
b) Hard drive tests (other than that described in Question 1a.
c) I/O tests.
d) Display mode tests.

Q3 Briefly describe the purpose and main features of the POST.

Task B – Fix one problem that has been found, carry out basic functional tests and check for malware on the system

1 Highlight in the log file the fault that has been found and explain how you are going to fix it. Re-name the log file '*your name* Log file 1'. Note: if the test has found more than one fault and you are in any doubt as to which one you should fix, show your Assessor each of the faults and ask for advice. As long as you have identified a fault correctly then you will not lose marks.

2 Identify the fault to your Assessor. Fix the fault. If required, obtain a replacement component. Record full details of both removed and replacement items.

3 Boot up the system, do a functional test on the replaced component and configure the system to suit the new component.

4 Repeat the diagnostic test but only for the replaced component. Record the results in a log file and re-name it '*your name* Log file 2'.

5 Do a manual update of the anti-virus software and virus definitions.

6 Do a virus scan of the whole system and delete any viruses that you find.

Q4 Briefly describe the purpose and function of the following types of test.

a) Stress test.
b) Integration test.
c) Security/vulnerability test.
d) Usability test.

Q5 State **four** sources of information on testing, diagnosis and product information for IT systems.

Task C – Compile and produce a report covering what you have done and found during the previous two tasks

1 Write a brief summary of everything you did to prepare, test and fix the PC.

2 Write details of

a) the fault that you found using the diagnostic software
b) the symptoms of the fault
c) what you did to fix the fault.

Attach the details of the component that you noted in Task B2.

3 Close down the system.

Q6 For **each** of the following items write down **one** typical fault and **one** possible fix for each fault.

a) BIOS/CMOS.
b) Printer.
c) Video card.
d) Power supply.

4 Hand all paperwork and removable storage media to your Assessor. Ensure that your name is clearly identified on your work.

5 Sign above your name and hand all paperwork to your Assessor.

End of assignment

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