# Level 2 Create automated procedures for ICT Operating Systems (7266-416)

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

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# Contents

**Level 2 Create automated procedures for ICT Operating Systems (7266-416)**


| | |
|---|---|
| Introduction – Information for Candidates | 2 |
| Candidate instructions | 3 |

# Level 2 Create automated procedures for ICT Operating Systems (7266-416) Assignment B

Introduction – Information for Candidates

## About this document

This assignment comprises all of the assessment for Create automated procedures for ICT Operating Systems (7266-416).

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## 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 Create automated procedures for ICT Operating Systems (7266-416)
# Candidate instructions

Candidates are advised to read **all instructions** carefully before starting work and to check with your assessor, if necessary, to ensure that you have fully understood what is required.

## Time allowance: 2 hours

**Assignment set up:** A scenario is provided for candidates in the form of a company specification for services they require.

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

- Task A - requires candidates to explore different strategies for spooling printed output.
- Task B - requires candidates to explore methods of allocation of space for disk storage.
- Task C - required candidates to work with command languages.

## Scenario

System Software Experts specialise in developing software for operating systems. They have been hired to provide solutions for a client's problems. As a contracted employee of System Software Experts your manager has assigned you the task of providing solutions.

## Task A

System Software Experts have been contracted to write software for controlling the spooling of printed output on a multi-programming multi-user system with one printer. Two strategies are being considered.

Strategy 1 - Priority

This strategy allows a priority rating to be assigned to files for printing. Files are given a priority rating from 1 to 3 with rating 1 being given top priority. A new file is printed immediately after all previous files with equal or higher priority have been printed.

Strategy 2 – Size

This strategy allows files to be printed according to size. The smallest file is printed first. A new file is printed after all previous files with equal or smaller sizes have been printed.

*Table 1* below shows the table of files to be printed at a given moment in time:

| Position | Filename | Priority Rating | Size in bytes |
|---|---|---|---|
| 1 | FL001 | 3 | 10555 |
| 2 | FL002 | 2 | 8564 |
| 3 | FL003 | 3 | 25674 |
| 4 | FL004 | 1 | 35698 |
| 5 | FL005 | 2 | 6945 |
| 6 | FL006 | 1 | 12486 |

Files are entered into the table in the order in which they arrive.

1 For **each** of the above strategies produce a list showing the order in which the files will be printed.

Another file is added: FL007, with a priority rating of 1 and a size of 22392 bytes.

File FL002 is no longer required and is deleted.

2 For **each** of the above strategies produce a revised list showing the new order in which the files will be printed.

Some printed output is taking a long time to produce because it is at the end of the list whichever strategy is used.

3 Suggest ONE solution which could double the speed of printing.

## Task B

A client has contacted your manager because access to his hard disk is getting slower and slower. Your manager has asked you to investigate the problem as the client is suggesting it is your company's software which is at fault.

Table 2 below shows the allocation of files on the client's hard disk drive.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| File1 | File3 | File6 | File2 | File6 | File2 | | File3 | |
| | File5 | File1 | | File1 | | | File2 | File5 |
| | File4 | | File1 | File2 | | | File6 | |
| File7 | File2 | | File4 | | File2 | | File6 | File2 |
| | | File4 | | File5 | | File2 | File3 | |
| | File3 | | | File1 | | | File6 | File5 |

1 Suggest ONE reason why the accesses to the hard disk drive are getting slower.

2 Suggest ONE solution that will increase the speed of access to the hard disk drive.

## Task C

Your manager has asked you to write some file housekeeping tasks using a command language. The code should be fully commented and include the procedure name and author name.

1 Create two directories called TEST and COPY.

2 Use a text editor to create a text file called FILE1.TXT. This file should include the following text:

This text is in the file called FILE1 created by *your name*.

3 Save FILE1.TXT in the directory TEST.

4 Use a text editor to create a text file called FILE2.TXT. This file should include the following text:

This text is in the file called FILE2 created by *your name*.

5 Save FILE2.TXT in the directory TEST.

6 Using a command language
   a. create and run a procedure that performs as follows:
      - copies all the files in the directory TEST to the directory COPY and displays a directory listing of the TEST and COPY directories if successful
      - displays an error message "An error has occurred in A" on the screen if unsuccessful

      Evidence can be provided by redirection of output or a Screen Print.
   b. Name the procedure A.
   c. Save the procedure in the TEST directory.
   d. Print a listing of the commented procedure A.

7 Using a command language
   a. create and run a procedure that performs as follows:
      - renames all files with an extension of .TXT in the directory COPY with an extension of .BAK, then displays a directory listing of the directory COPY on the screen if successful
      - displays an error message "An error has occurred in B" on the screen if unsuccessful.

      Evidence can be provided by redirection of output or a Screen Print.
   b. Name the procedure B.
   c. Save the procedure in the directory TEST.
   d. Print a listing of the commented procedure.

8 Using a command language
   a. create and run a procedure that performs as follows:
      - displays a directory listing of all the files in the directory TEST,
      - displays an error message "An error has occurred in C" on the screen if unsuccessful.

      Evidence can be provided by redirection of output or a Screen Print.
   b. Name the procedure C.
   c. Save the procedure in the directory TEST.

d. Print a listing of the commented procedure.

9 Using a command language

a. create and run a procedure that performs as follows:
   - deletes all the files in the directory COPY then displays a directory listing of all the files in the directory COPY on the screen if successful
   - displays an error message “An error has occurred in D” on the screen if unsuccessful.

   Evidence can be provided by redirection of output or a Screen Print.
b. Name the procedure D.
c. Save the procedure in the directory TEST.
d. Print a listing of the commented procedure.

10 Using a command language

a. reate and run a procedure that performs as follows:
   - returns to the system command line.
b. Name the procedure E.
c. Save the procedure in the directory TEST.
d. Print a listing of the commented procedure.

11 Using a command language

a. create and run a procedure that performs as follows:
   - displays a menu as follows

     MENU

     A Copy files from TEST to COPY
     B Rename .txt files in COPY
     C Directory listing of TEST
     D Delete files in COPY
     E Exit

     Enter an option:
   - runs the procedures A, B, C, D and E.

   Evidence can be provided by redirection of output or a Screen Print.
b. Name the procedure MENU.
c. Save the procedure in the directory TEST.
d. Print a listing of the commented procedure.

**Note**

- At the conclusion of this assignment, hand all paperwork and removable media to the test supervisor.
- Ensure that your name is on the removable media and all documentation.
- If the assignment is taken over more than one period, all removable media and paperwork must be returned to the test supervisor at the end of each sitting.

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