# Level 2 Create designs and test software components (7266/7267-201)
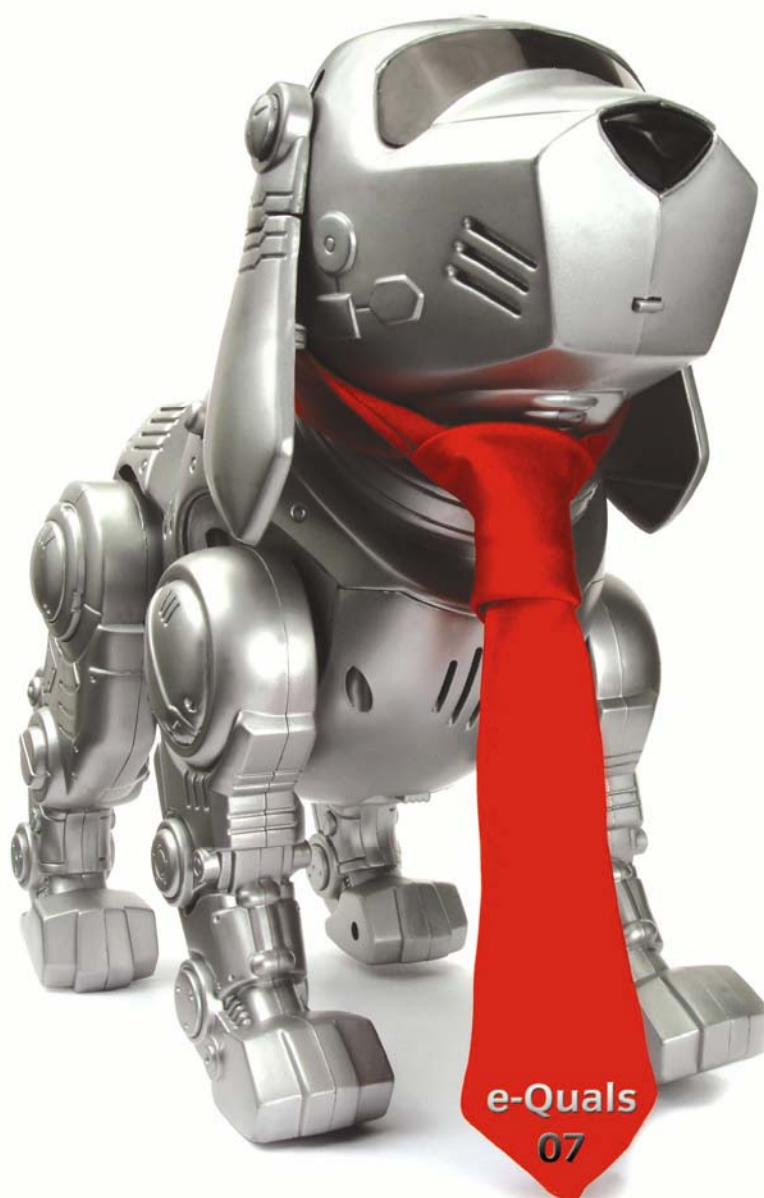
**e-Quals**
**Assignment guide for Assessors**
Assignment D

# Contents

**Level 2 Create designs and test software components (7266/7267-201)** Assignment D

# Level 2 Create designs and test software components (7266/7267-201) Assignment D

## Introduction – Information for Marking Assessors

## About this document

This assignment comprises the part of the assessment for Level 2 Create designs and test software components (7266/7267-201).

The task information for this assignment is contained in the *Candidate Instructions* document. The following notes for guidance are provided to assist assessors in planning the delivery of the assignment to candidates.

### Important information

This document must **not** be shown to candidates prior to assessment.

Feedback **may** be given to candidates after the assessment using this document, but they must not be allowed to keep a copy.

## Health and safety

The importance of safe working practices, the demands of the Health and Safety at Work Act 1974 (HASWA) or national and / or local health and safety regulations, associated regulations and Codes of Practice associated with the particular industry, must always be stressed. This will include directives form the European Union (EU) where appropriate. Candidates have responsibilities for maintaining the safety of others as well as their own. Anyone behaving in an unsafe fashion must be stopped and a suitable warning given. A candidate should never be allowed to continue on an assignment if they have contravened these requirements. This may seem rather strict but, apart from the potentially unpleasant consequences, each candidate must acquire the habits required for the workplace.

## Location of assignment

Any suitable environment.

## Equipment required for this assignment

Candidates will need to have access to a secure work area, either on a stand-alone PC or on a network.

## Security

Centres should ensure that all data produced by candidates is kept secure and that assignments are, once downloaded, kept locked safely away until their use. It is the responsibility of the centre/assessor to ensure that the candidate taking an assignment /test is the correct person. Ideally, centres should produce a written strategy outlining their procedures for ensuring the above takes place.

## Notes on the content of this assignment

Tasks A and B can be completed separately to Tasks C and D.

For Tasks C and D the candidate must be provided with the Photo.exe file, which runs under 32 bit Windows, for the software testing. An executable file is provided and is available for downloading from the web site.

Candidate will need to hand in a completed copy of appendix B.

## Evidence and recording

See evidence and recording table.

## Time considerations

It is recommended that the candidates should complete this assignment within **4 hours**

If the assignment is taken over more than one period, all removable storage media and paperwork must be returned to the test supervisor at the end of each sitting.

A period of 7 days must have elapsed before an unsuccessful candidate can retake this assignment.

## Files to be provided by the centre

|   | For Task | File specification | Type | File name |
|---|----------|--------------------|------|-----------|
| 1 | C | Executable program to be used for testing | .exe | Photo.EXE |
|   |          |                    |      |           |

**All files are available from our website.**

# Level 2 Create designs and test software components (7266/7267-201)

Assignment coversheet

| | |
|---|---|
| **Candidate name** | |
| **City & Guilds registration number** | |
| **Centre name** | |
| **Centre number** | |
| **Date of assessment** | |
| **Grade achieved** | |

# Level 2 Create designs and test software components (7266/7267-201)
Marking and grading criteria

## How to mark this assignment

All candidate instructions are shown for ease of marking. A mark should be given for each task specified in the marking, if the candidate achieves it. At the end of the marking criteria candidates' marks should be totalled and an overall grade should be given according to the prescribed number of criteria shown.

**Grading criteria**

**Pass** –   all criteria shown as **[  ]** and **14** shown as **(  )**.
**Credit** – all criteria shown as **[  ]** and **17** shown as **(  )**.
**Distinction** – all criteria shown as **[  ]** and **19** shown as **(  )**.

**Please note:** DO NOT MARK PRINTOUTS WITHOUT A NAME.

| Task A | Outcome Reference | Evidence and recording | Candidate instructions | Marking criteria | Marking | |
|---|---|---|---|---|---|---|
| 1 | 2.1, 3.1, 3.2, 3.3 | Program design language algorithms for the Validation routines | Use a program design language to produce the design for the validation routines. Perform all validation as required for the design. Any assumptions you make about the design must be documented. | Parameters passed and used as on structure chart | [ ] | |
| | | | | Validation performed correctly on at least FOUR of the following: | [ ] | |
| | | | | • Entrant's Number – modulus s 11 check | | ( ) |
| | | | | • Entrant's Number – 6 digits | | ( ) |
| | | | | • Entrant's Number - numeric | | ( ) |
| | | | | • Date of Entry - Full date check | | ( ) |
| | | | | • Category Code – People, Landscape, Garden, Close-up | | ( ) |
| | | | | • Camera Type – D or F | | ( ) |
| 2 | 3.4 | Program design language algorithms for the Validation routines | Some error codes have already been defined for the software and are shown below with their associated message. The error codes 8 – 12 are unassigned and if required can be used for extra error messages for your routines. Document any new error messages used. | Error codes in table used correctly and any new error messages documented | [ ] | |
| 3 | 3.1 | Appendix B | Appendix B shows a sample code snippet containing references to Internal and External filenames. You are required to identify these as instructed. | External Filename identified | | ( ) |

| Task B | Outcome Reference | Evidence and recording | Candidate instructions | Marking criteria | Marking | |
|---|---|---|---|---|---|---|
| 1 | 3.6 | Program design algorithms for Validation routines | The design conforms to the design specification. | The design attempted to conform to the specification | | ( ) |
| 2 | 2.1 | Program design algorithms for Validation routines | The design uses the most appropriate data type(s). | The design declared variables of an appropriate data type | [ ] | |
| 3 | 3.5 | Program design algorithms for Validation routines | The design is consistent and complete. | The design was consistent and complete | | ( ) |
| 4 | 2.1 | Program design algorithms for Validation routines | The program design language clearly shows variable names and data types, constants, argument names and data types, return value data types and any data structures used. | The program design language clearly showed variable names and data types, constants, argument names and data types, return value data types and any data structures | | ( ) |
| 5 | 3.2 | Program design algorithms for Validation routines | The program design language clearly shows the beginning and end of each iteration, selection and routine. | The program design language clearly showed the beginning and end of each iteration, selection and routine | | ( ) |

| Task C | Outcome Reference | Evidence and recording | Candidate instructions | Marking criteria | Marking | |
|---|---|---|---|---|---|---|
| 1 | 4.1, 4.2 | Test plan | Prepare a test plan to carry out functional testing of the software. | Test plan produced | [ ] | |
| | | | | Test plan included testing for validation, file and printed output | | ( ) |
| 2 | 4.3 | Test data | Prepare the test data to be used with the test plan. | Test data created | [ ] | |
| 3 | 5.1, 5.2, 5.3 | Test log | Use the test plan and test data to carry out a series of tests and record the test results in a test log. | Test log recorded results of testing | [ ] | |
| | | | | Evidence of testing produced ie printed output, screen prints and file output | [ ] | |
| | | | | Found at least FOUR of the following errors | [ ] | |
| | | | | • Error message "7: Camera Type must be D or F" incorrect should have the error number 4 | | ( ) |
| | | | | • Category Code Landscape spelt incorrectly in list on screen (Lanscape) | | ( ) |
| | | | | • Date validated but allows 29 days in February for any year. | | ( ) |
| | | | | • Three records appear on a page instead of four | | ( ) |
| | | | | • Error message "2: Entrant's Number is not 6 digits" does not appear when incorrect number of digits entered | | ( ) |
| | | | | • In file, Camera Type is duplicated | | ( ) |

| Task C | Outcome Reference | Evidence and recording | Candidate instructions | Marking criteria | Marking | |
|---|---|---|---|---|---|---|
| 4 | 6.1, 6.4 | Observation | Maintain a safe working environment for self and others. Use and maintain equipment, materials and accessories to a safe standard. | Maintained a safe working environment for self and others. Used and maintained equipment, materials and accessories to a safe standard. | | ( ) |
| 5 | 6.5 | Report | Write a brief report which identifies two possible hazards that could cause accidents to occur in the IT work area. | Identified two appropriate hazards eg overloaded power points, trailing cables. | | ( ) |
| Task D | Outcome Reference | Evidence and recording | Candidate instructions | Marking criteria | Marking | |
| 1 | 4.2 | Test plan | The test plan contains a test number, date, purpose and type of test and expected outputs for stated inputs. | The test plan contained a test number, date, purpose and type of test and expected outputs for stated inputs. | | ( ) |
| 2 | 4.3 | Test data | The test data tests the software execution under normal and exceptional circumstances. | The test data fully tested for valid, invalid and boundary data. | | ( ) |
| 3 | 5.3 | Printed output, screen prints, file output | Evidence of printed output, screen prints and file output must be cross referenced to the correct test number. | Printed output, screen prints and file output cross referenced to the correct test number. | | ( ) |
| Totals [ ] and ( ) | | | | | | |

# Level 2 Create designs and test software components (7266/7267-201)

Marking summary

## About the Candidate

| | | | |
|---|---|---|---|
| **Candidate name** | | **City & Guilds registration number** | |
| **Centre name** | | **Centre number** | |

## About the assessment

| | |
|---|---|
| **Date of assessment** | |

| | | | |
|---|---|---|---|
| **Number of [ ] achieved** | | **Number of ( ) achieved** | |

Pass – all criteria shown as [ ] and 14 shown as ( ).
Credit – all criteria shown as [ ] and 17 shown as ( ).
Distinction – all criteria shown as [ ] and 19 shown as ( ).

| | |
|---|---|
| **Overall grade achieved** | |

## Signatures

| | | | |
|---|---|---|---|
| **Candidate Signature** | | **Date** | |
| **Quality nominee** (if sampled) | | **Date** | |
| **Assessor Signature** | | **Date** | |
| **External Verifier Signature** (if sampled) | | **Date** | |