

General Certificate of Education June 2010

Applied ICT IT10

Advanced Spreadsheet Design

Unit 10

Final

Mark Scheme

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this Mark Scheme are available to download from the AQA Website: www.aqa.org.uk

Copyright © 2010 AQA and its licensors. All rights reserved.

COPYRIGHT

AQA retains the copyright on all its publications. However, registered centres for AQA are permitted to copy material from this booklet for their own internal use, with the following important exception: AQA cannot give permission to centres to photocopy any material that is acknowledged to a third party even for internal use within the centre.

Set and published by the Assessment and Qualifications Alliance.



Version 2.0

Externally assessed work Mark Scheme June 2010

GCE Applied ICT (8756/7/9) Unit 10: Advanced Spreadsheet Design (IT10)

| Centre name: | | | Centre n | 10: | | | |
|-----------------|-------|-----------------|-----------------|--------|---|--|--|
| Candidate name: | | | Candida | te no: | | | |
| | Page | Maximum mark | Mark awarded | | _ | | |
| | Total | 70 | | | | | |

For each item a mark of zero will be recorded for all non-creditworthy responses.

| | 1 mark | 2 marks | 3 marks | 4 marks | Marks |
|---------------------|---|---|--|---------|-------|
| Item (a) 2 marks | Candidate has produced a time plan that identifies the tasks required in an appropriate order. | Candidate has produced a comprehensive list of tasks in an appropriate order, and has included an estimate of time required for all tasks. | | | |
| | Candidate has attempted to describe the background of the client and why a spreadsheet system is required. | Candidate has clearly described the background of the client and why a spreadsheet system is required. | | | |
| Item (b) 4 marks | Candidate has identified the intended user(s) of the system, and their skill level. | Candidate has identified the intended user(s) of the system, and produced design notes indicating how the skill level of the user has affected their designs. | | | |
| Item (c) 3 marks | Candidate has listed some client needs. | Candidate has produced a comprehensive list of client needs. | Candidate has produced a comprehensive list of client needs and explained how their proposed system will meet these needs. | | |

| 1 mark | 2 marks | 3 marks | 4 marks | Marks |
|--|---|--|---|---|
| Candidate has stated some of the processing to be undertaken in the proposed spreadsheet system. | Candidate has produced a description of the processing to be undertaken in the proposed spreadsheet system. | Candidate has produced a detailed description of the processing to be undertaken in the proposed spreadsheet system. | | |
| | | | | |
| Candidate has stated the inputs and outputs required. | Candidate has specified the inputs and outputs required. | Candidate has specified in detail the inputs and outputs required. | | |
| | | | | |
| Candidate has produced some evaluation criteria for their solution. | Candidate has produced both qualitative and quantitative evaluation criteria for the solution. | Candidate has produced both qualitative and quantitative evaluation criteria that are appropriate to assess if the client needs have been met. | Candidate has identified both qualitative and quantitative evaluation criteria, and has stated why they are appropriate to assess if the client needs have been met. | |
| | | | | |
| Candidate has produced simple design work of the user interface to be implemented. | Candidate has produced design work of the user interface to be implemented, annotating the key features of the interface. | Candidate has produced annotated design work of the user interface to be implemented, justifying the use of the key features of the interface in relation to user needs. | | |
| | | | | |
| Candidate has produced simple design work for a spreadsheet system demonstrating some of the functionality of the software to be used. | Candidate has produced design work for a spreadsheet system demonstrating all of the functionality of the software to be used. | Candidate has produced design work for a spreadsheet system and has justified how the functionality of the software meets the client needs. | | |
| | | | | |
| Candidate has annotated design work for a spreadsheet system with comments from the client. | Candidate has produced evidence of updated design work for a spreadsheet system following comments from the client. | Candidate has explained changes to design work for a spreadsheet system in line with comments from the client. | | |
| | Candidate has stated some of the processing to be undertaken in the proposed spreadsheet system. Candidate has stated the inputs and outputs required. Candidate has produced some evaluation criteria for their solution. Candidate has produced simple design work of the user interface to be implemented. Candidate has produced simple design work for a spreadsheet system demonstrating some of the functionality of the software to be used. Candidate has annotated design work for a spreadsheet system with comments from the | Candidate has stated some of the processing to be undertaken in the proposed spreadsheet system. Candidate has stated the inputs and outputs required. Candidate has produced some evaluation criteria for their solution. Candidate has produced simple design work of the user interface to be implemented. Candidate has produced simple design work for a spreadsheet system demonstrating some of the functionality of the software to be used. Candidate has a annotated design work for a spreadsheet system with comments from the client. Candidate has a produced simple design work for a spreadsheet system demonstrating some of the functionality of the software to be used. Candidate has produced simple design work for a spreadsheet system demonstrating some of the functionality of the software to be used. Candidate has produced simple design work for a spreadsheet system demonstrating all of the functionality of the software to be used. Candidate has produced design work for a spreadsheet system with comments from the client. | Candidate has stated some of the processing to be undertaken in the proposed spreadsheet system. Candidate has stated the inputs and outputs required. Candidate has produced some evaluation criteria for their solution. Candidate has produced simple design work for a spreadsheet system demonstrating some of the functionality of the software to be used. Candidate has produced simple design work for a spreadsheet system with comments from the client. Candidate has as tated the inputs and outputs required. Candidate has produced some evaluation criteria for their solution. Candidate has produced simple design work for a spreadsheet system with comments from the client. Candidate has produced simple design work for a spreadsheet system with comments from the client. Candidate has annotated design work for a spreadsheet system with comments from the client. Candidate has annotated design work for a spreadsheet system with comments from the client. Candidate has annotated design work for a spreadsheet system with comments from the client. Candidate has annotated design work for a spreadsheet system with comments from the client. | Candidate has stated some of the processing to be undertaken in the proposed spreadsheet system. Candidate has stated the system. Candidate has stated the inputs and outputs required. Candidate has produced some evaluation criteria for their solution. Candidate has produced some evaluation criteria for the solution. Candidate has produced simple design work of the user interface to be implemented, annotating the key features of the interface. Candidate has produced simple design work for a spreadsheet system demonstrating some of the software to be used. Candidate has produced some the interface to be interface. Candidate has produced simple design work for a spreadsheet system demonstrating the functionality of the software to be used. Candidate has produced some work of the user interface to be interface. Candidate has produced simple design work for a spreadsheet system demonstrating some of the functionality of the software to be used. Candidate has produced sign work of the software to be used. Candidate has produced sign work of the software to be used. Candidate has produced sign work of the user interface to be interface. Candidate has produced sign work of the user interface to be interface. Candidate has produced sign work of the user interface to be interface. Candidate has produced sign work of the user interface to be interface to be interface. Candidate has produced sign work of a spreadsheet system demonstrating the functionality of the software to be used. Candidate has produced design work for a spreadsheet system demonstrating the functionality of the software to be used. Candidate has produced evidence of the functionality of the software work for a spreadsheet system in line with comments from the client. |

| 1 mark | 2 marks | 3 marks | 4 marks | Marks |
|--|---|--|---|---|
| Candidate has produced an outline for a testing strategy or sets of data to test the whole system. | Candidate has produced a testing strategy and includes sets of test data to test the whole system. | | | |
| Candidate has produced a test plan that tests individual parts of the spreadsheet system. | Candidate has produced a test plan that tests individual parts and the completed system in a logical order to aid implementation of the system. | | | |
| Candidate has provided evidence of carrying out testing of the individual elements of the system. | Candidate has provided evidence of carrying out testing of the individual elements of the system in line with the test plan. | Candidate has provided evidence of carrying out testing of the individual elements of the system in line with the whole of the test plan using test data that tests all formulae and functions. | Candidate has provided evidence of carrying out testing of the individual elements of the system in line with the whole of the test plan using normal, extreme and erroneous test data that tests all formulae and functions. | |
| Candidate has provided evidence of carrying out some integration testing. | Candidate has provided evidence of carrying out testing of the system as a whole. | Candidate has provided evidence of carrying out testing of the system as a whole that shows how the actual results compare with the expected results. | Candidate has provided evidence of carrying out testing of the system as a whole and has explained how the results of the testing prove that the needs of the user have been met. | |
| | Candidate has produced an outline for a testing strategy or sets of data to test the whole system. Candidate has produced a test plan that tests individual parts of the spreadsheet system. Candidate has provided evidence of carrying out testing of the individual elements of the system. Candidate has provided evidence of carrying out testing of the individual elements of the system. | Candidate has produced an outline for a testing strategy or sets of data to test the whole system. Candidate has produced a test the whole system. Candidate has produced a test plan that tests individual parts of the spreadsheet system. Candidate has provided evidence of carrying out testing of the individual elements of the system. Candidate has provided evidence of carrying out testing of the individual elements of the system. Candidate has provided evidence of carrying out testing of the individual elements of the system in line with the test plan. Candidate has provided evidence of carrying out testing of the system in line with the test plan. Candidate has provided evidence of carrying out testing of the system in line with the test plan. | Candidate has produced an outline for a testing strategy or sets of data to test the whole system. Candidate has produced a test data to test the whole system. Candidate has produced a test plan that tests individual parts of the spreadsheet system. Candidate has provided evidence of carrying out testing of the individual elements of the system. Candidate has provided evidence of carrying out testing of the individual elements of the system. Candidate has provided evidence of carrying out testing of the individual elements of the system in line with the test plan. Candidate has provided evidence of carrying out testing of the individual elements of the system in line with the test plan. Candidate has provided evidence of carrying out testing of the individual elements of the system in line with the test plan using test data that tests all formulae and functions. Candidate has provided evidence of carrying out testing of the system as a whole that shows how the actual results compare with the expected | Candidate has produced an outline for a testing strategy or sets of data to test the whole system. Candidate has produced a test plan that tests individual parts of the system. Candidate has provided evidence of carrying out testing of the individual elements of the system in line with the test plan. Candidate has provided evidence of carrying out testing of the individual elements of the system in line with the test plan. Candidate has provided evidence of carrying out testing of the individual elements of the system in line with the test plan. Candidate has provided evidence of carrying out testing of the individual elements of the system in line with the test plan. Candidate has provided evidence of carrying out testing of the individual elements of the system in line with the test plan. Candidate has provided evidence of carrying out testing of the individual elements of the system in line with the test sall formulae and functions. Candidate has provided evidence of carrying out testing of the test plan using test data that tests all formulae and functions. Candidate has provided evidence of carrying out testing of the system as a whole whole. Candidate has provided evidence of carrying out testing of the test plan using test data that tests all formulae and functions. Candidate has provided evidence of carrying out testing of the system as a whole that shows how the actual results compare with the expected |

| 1 mark | 2 marks | 3 marks | Marks |
|---|--|--|--|
| Candidate has shown some awareness of managing work effectively such as using appropriate sheet names, filenames, or named areas. | Candidate demonstrates that they have consistently managed work effectively such as using appropriate sheet names, filenames, named areas and macro names. | | |
| Candidate has produced part of a working spreadsheet system. | Candidate has produced a working spreadsheet system which partially meets the client's needs. | Candidate has produced a working spreadsheet system and explained how it meets the client's needs. | |
| Candidate has produced printouts or screenshots from the spreadsheet system. | Candidate has produced printouts or screenshots from the spreadsheet system with evidence of use of formulae. | Candidate has annotated printouts or screenshots from the spreadsheet system to explain the use of a variety of formulae that meet the needs of the client. | |
| Candidate has used complex spreadsheet features. | Candidate has used a variety of appropriate complex spreadsheet features. | Candidate has explained how the complex spreadsheet features used are appropriate for the system and for the needs of the client. | |
| Candidate has made use of macros in their spreadsheet system. | Candidate has made use of macros to automate a task other than navigation to meet the needs of the client. | | |
| Candidate has used software features to produce a system that can be used more than once. | Candidate has explained the use of software features to produce a system that can be used more than once. | | |
| Candidate has produced a spreadsheet system that provides some output. | Candidate has produced a spreadsheet system that provides some output that meets the needs of the client. | Candidate has produced a spreadsheet system that provides some output and explains how it meets the needs of the client. | |
| | Candidate has shown some awareness of managing work effectively such as using appropriate sheet names, filenames, or named areas. Candidate has produced part of a working spreadsheet system. Candidate has produced printouts or screenshots from the spreadsheet system. Candidate has used complex spreadsheet features. Candidate has made use of macros in their spreadsheet system. Candidate has used software features to produce a system that can be used more than once. Candidate has produced a spreadsheet system that provides | Candidate has shown some awareness of managing work effectively such as using appropriate sheet names, filenames, or named areas. Candidate has produced part of a working spreadsheet system. Candidate has produced part of a working spreadsheet system. Candidate has produced printouts or screenshots from the spreadsheet system. Candidate has used complex spreadsheet features. Candidate has used complex spreadsheet features. Candidate has made use of macros in their spreadsheet system with evidence of use of formulae. Candidate has used software features to produce a system that can be used more than once. Candidate has produced a spreadsheet system that provides some output. Candidate has produced a spreadsheet system that provides some output that | Candidate has shown some awareness of managing work effectively such as using appropriate sheet names, filenames, or named areas. Candidate has produced part of a working spreadsheet system. Candidate has produced part of a working spreadsheet system. Candidate has produced part of a working spreadsheet system. Candidate has produced printouts or screenshots from the spreadsheet system. Candidate has produced printouts or screenshots from the spreadsheet system. Candidate has used complex spreadsheet features. Candidate has used complex spreadsheet features. Candidate has used complex spreadsheet features. Candidate has used software features to produce a system that can be used more than once. Candidate has produced a spreadsheet system that can be used more than once. Candidate has produced a spreadsheet system that provides some output. Candidate has produced a spreadsheet system that provides some output that Candidate has produced a spreadsheet system that provides some output that Candidate has produced a spreadsheet system that provides some output that |

| | 1 mark | 2 marks | 3 marks | 4 marks | Marks |
|---------------------|---|---|---------|---------|-------|
| Item (i) 2 marks | Candidate has shown that they adhered to their implementation schedule. | Candidate has shown that they monitored progress explaining any alterations to their implementation schedule. | | | |
| | | | | | |

Low mark range 0-3

Candidate has attempted to evaluate their spreadsheet system and/or their own performance. Text is readable. There may be some errors of spelling, punctuation and grammar. The reader can understand what is written but the meaning is not always clear. Candidate has used a form and style of writing and presentation which is sometimes appropriate to its purpose, but with deficiencies. Candidate has expressed straightforward ideas clearly, if not always fluently. Sentences and paragraphs may not always be well-connected. Information presented may lack structure.

Mid-mark range 4-6 marks

Candidate has evaluated their spreadsheet system using the evaluation criteria and/or the needs of the client. Candidate has reviewed their progress making some comments regarding strengths and weaknesses. Text is readable. There may be occasional errors of spelling, punctuation and grammar. Most of the meaning is clear for a reader. Candidate has, in the main, used a form and style of writing and presentation which is appropriate for its purpose. Candidate has expressed moderately complex ideas clearly and reasonably fluently. Candidate has used well-linked sentences and paragraphs so that information is generally well structured. There is some evidence of appropriate use of technical terminology.

Item (j) 10 marks

High mark range 7-10 marks

Candidate has evaluated their spreadsheet system relating the results of testing to their evaluation criteria. Candidate has critically evaluated their system in relation to the needs of the client identifying improvements that could be made in the future. Candidate has critically evaluated their own performance, identifying strengths, weaknesses and areas for improvement. Text is readable. There are few, if any, errors of spelling, punctuation and grammar. Meaning is clear for a reader. Candidate has selected and used a form and style of writing and presentation appropriate to purpose and has expressed complex ideas clearly and fluently. Information is well structured with sentences and paragraphs following on from one another clearly and coherently. Specialist vocabulary has been used appropriately, including appropriate technical terms that relate to ICT.

| Page | Maximum mark | Mark awarded |
|-------|-----------------|-----------------|
| 1 | 9 | |
| 2 | 19 | |
| 3 | 12 | |
| 4 | 18 | |
| 5 | 12 | |
| Total | 70 | |

The following standard abbreviations may be used:

NONE There is no evidence presented for this section

NA Not Appropriate – the information presented is not appropriate to the requirements of the task NE Not Enough – although there is some evidence present it is insufficient evidence to gain marks BOD Benefit Of the Doubt