A Q A
ASSESSMENT and
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ALLIANCE

General Certificate of Education

GCE Applied Information and Communication Technology 8751, 8753, 8756, 8757 and 8759

IT10   Advanced Spreadsheet Design

Mark Scheme

2009 examination - January series

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.

AQA
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Version 1.0

Externally assessed work
Examiner Mark Scheme
January 2009

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

Centre name: ....   Centre no:

Candidate name: ....   Candidate no:

	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.			
Item (b) 4 marks	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.			
	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) 9 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
Item (c)	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.		
Item (d) 4 marks	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.	
Item (e) 9 marks	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.		
				4 marks	

	1 mark	2 marks	3 marks	4 marks	Marks
Item (f) **4 marks**	Candidate has produced an outline for a testing strategy.	Candidate has produced a testing strategy that 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.			
Item (g) **8 marks**	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** including testing all outputs.	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.	

	1 mark	2 marks	3 marks	4 marks	Marks
Item (h) 18 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.		

	1 mark	2 marks	3 marks	4 marks	Marks
Item (i) 4 marks	Candidate has attempted to evaluate their spreadsheet system.	Candidate has evaluated their spreadsheet system using the evaluation criteria.	Candidate has critically evaluated their spreadsheet system using the evaluation criteria, relating their comments to the needs of their client.	Candidate has critically evaluated their spreadsheet system using the evaluation criteria, relating their comments to the needs of their client, and identified areas of their system that could be improved in the future.	
Item (j) 2 marks	Candidate has compared times taken with the original estimates in their time plan.	Candidate has explained times taken compared with the original estimates in their time plan.			
Item (k) 2 marks	Candidate has evaluated their own performance in producing their system.	Candidate has evaluated their own performance in producing their system, identifying strengths and weaknesses and areas for improvement.			
Quality of written communication 4 marks	Candidate uses written expression in a non-specialist way.	Candidate uses written expression with some specialist vocabulary to organise information.	Candidate uses written expression with suitable specialist vocabulary to organise and interpret information.	Candidate uses written expression with appropriate specialist vocabulary to organise and interpret information within complex subject matter.	

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
JE Just Enough – the evidence presented is weak but has been credited
BOD Benefit Of the Doubt – credit has been given where poor English, writing or expression is an issue