

GCSE

Information & Communication Technology B

General Certificate of Secondary Education 1995/1095

Mark Scheme for the Components

June 2007

1995/1095/MS/R/07

Oxford Cambridge and RSA Examinations

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by Examiners. It does not indicate the details of the discussions which took place at an Examiners' meeting before marking commenced.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the Report on the Examination.

OCR will not enter into any discussion or correspondence in connection with this mark scheme.

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CONTENTS

General Certificate of Secondary Education Information and Communication Technology B (1995/1095)

MARK SCHEMES FOR THE COMPONENTS

Component	Content	Page
2380/01	Paper 1 (Foundation)	1
2380/02	Paper 1 (Higher)	11
	Grade Thresholds	12

Mark Scheme 2380/01 June 2007

INSTRUCTIONS ON MARKING SCRIPTS

All page references relate to the Instructions to Examiner booklet (revised June 2006)

For many question papers there will also be subject or paper specific instructions which supplement these general instructions. The paper specific instructions follow these generic ones.

1 Before the Standardisation Meeting

Before the Standardisation Meeting you must mark a selection of at least 10 scripts. The selection should be drawn from several Centres. The preliminary marking should be carried out **in pencil** in strict accordance with the mark scheme. In order to help identify any marking issues which might subsequently be encountered in carrying out your duties, the marked scripts must be brought to the meeting. (Section 5c, page 6)

2 After the Standardisation Meeting

- a) Scripts must be marked in **red**, including those initially marked in pencil for the Standardisation Meeting.
- b) All scripts must be marked in accordance with the version of the mark scheme agreed at the Standardisation Meeting.

c) Annotation of scripts

The purpose of annotation is to enable examiners to indicate clearly where a mark is earned or why it has not been awarded. Annotation can, therefore, help examiners, checkers, and those remarking scripts to understand how the script has been marked.

Annotation consists of:

- the use of ticks and crosses against responses to show where marks have been earned or not earned:
- the use of specific words or phrases as agreed at standardisation and as contained in the final mark scheme either to confirm why a mark has been earned or indicate why a mark has not been earned (eg indicate an omission);
- the use of standard abbreviations eg for follow through, special case etc.

Scripts may be returned to Centres. Therefore, any comments should be kept to a minimum and should always be specifically related to the award of a mark or marks and be taken (if appropriate) from statements in the mark scheme. General comments on a candidate's work must be avoided.

Where annotations are put onto the candidates' script evidence, it should normally be recorded in the body of the answer or in the margin immediately adjacent to the point where the decision is made to award or not award the mark.

d) Recording of marking: the scripts

- i) Marked scripts must give a clear indication of how marks have been awarded, as instructed in the mark scheme.
- ii) All numerical marks for responses to part questions should be recorded unringed in the right-hand margin. The total for each question (or, in specified cases, for each page) should be shown as a single ringed mark in the right-hand margin at the end of each question.
- iii) The ringed totals should be transferred to the front page of the script, where they should be totalled.
- iv) Every page of a script on which the candidate has made a response should show evidence that the work has been seen.
- v) Every blank page should be crossed through to indicate that it has been seen. (Section 8a d, page 8)

e) Handling of unexpected answers

The Standardisation Meeting will include a discussion of marking issues, including:

- a full consideration of the mark scheme in the context of achieving a clear and common understanding of the range of acceptable responses and the marks appropriate to them, and comparable marking standards for optional questions;
- the handling of unexpected, yet acceptable answers. (Section 6a, bullet point 5, page 6)

There will be times when you may not be clear how the mark scheme should be applied to a particular response. In these circumstances, a telephone call to the Team Leader should produce a speedy resolution to the problem. (Appendix 5, para 17, page 26)

Question	Expected Answer	Mark	Total	
1				
	Task	Software type		
	To calculate staff hours	Email software		
	To change the details on a website	Diary software		
	To design the graphics on a leaflet	Spreadsheet		
	To store patient addresses	Database		
	To check dentist availability	Graphics software		
	To explore the World Wide Web	Web design software		
	To send an email	Web browser		
	Answers:			
	One mark for each correct app	olication	1x6	[6]
2	Input devices One mark for each correctly st	tated point up to two marks.		
	Example answers:			
	MiceKeyboardScannerTouch screenCard Reader		1x2	[2]
	Output devices One mark for each correctly st	tated point up to two marks.		
	Example answers:			
	PrinterScreen / VDU / MonitorPlotter		1x2	[2]
	Storage devices One mark for each correctly st	tated point up to two marks.		
	Example answers:			
	 CD DVD Hard disk / Hard drive Floppy disk Memory / USB stick Flash card 		1x2	[2]

Qu	estion	Expected Answer	Mark	Total
3	(a)	One mark for each correctly stated point up to two marks.		
		Example answers:		
		 A manual Installation instructions Key code / licence key Shortcut guide Technical spec Cert of authenticity / licence (agreement) Warranty Advertising leaflets 		
		Register cardQuick start guide	1x2	[2]
3	(b)	One mark for each correctly stated point up to two marks.	IAL	L ² J
		Example answers:		
		 DVD / CD A paper based manual Paper based (installation) instructions 	1x2	[2]
3	(c)	One mark for you agree to a licence by opening.	IXE	L ² J
		One mark for each correctly stated point up to one mark.		
		Example answers:		
		 Easier than signing an agreement Cheaper than posting back an agreement Shows the shop you have may have used the software Tells you it is an original copy 	1x2	[2]

Question		Expected Answer	Mark	Total
4	(a)	Answer: Patient number	1	[1]
4	(b)	Answer:		
	` '	Patient surname	1	[1]
4	(c)(i)	Answer: 0015	1	[1]
4	(c)(ii)	One mark is awarded for:	I	נין
		Set (database) fieldAdd verificationAdd validation		
		 An additional mark is awarded for the expansion eg Set a date field Any form of verification eg double enter the data or 		
		 the use of a hardware or software verifier Any relevant validation method eg loop or number range 	1x2	[2]
4	(d)	One mark for each correctly stated point up to two marks. One mark for a description, one mark for an example. Example answers: Number of digits that can be entered Method of validation		
		An additional mark for an example from database	1x2	[2]
4	(e)(i)	Answer:		
		A valid description eg a field is a single piece of data	1	[1]
4	(e)(ii)	Answer:		
		A record is <u>all</u> the data for <u>one</u> patient	1	[1]

Qι	estion	Expected Answer	Mark	Total
5	(a)	Answer: qsZx7596	1x1	
		Reasons: One mark for each valid reason given up to 3		
		marks.		
		Example reasons:		
		Combining numbers and letters		
		It is not a word/name		
		Lower case and capitals		
		Length	1x3	[4]
5	(b)	One mark for each correctly stated point up to two marks.		
		Example answers:		
		Very difficult to remember		
		May be written down – therefore less secure		
		Could be transcribed incorrectly		
		, in the second	1x2	[2]

Qu	estion	Expected Answer	Mark	Total
6	(a)	One mark for each correctly stated point up to three marks.		
		Example answers:		
		Low bandwidth		
		Slow computer Too many graphics / large images		
		Too many graphics / large imagesComputer doing other things at the same time		
		Server busy / too many people / too much traffic		
		Corver busy r too many people r too maon trains	1x3	[3]
6	(b)	One mark for each correctly stated point up to two marks.		L -3
		Example answers:		
		Spaces in email address		
		Should not have a full stop at the end of the address		
		Incorrect address		
		Should be .com Can you down.		
		Server down	1x2	[2]
6	(c)	Answer:		
		A program		
		It replicates itself		
			1x2	[2]
6	(d)	One mark for each correctly stated point up to three marks.		
		Example answers:		
		By email		
		By the internet		
		By a corrupted program By a relief and distributions By a corrupted program By a corrupted pro		
		By an infected disk Via the patwork		
		Via the networkBy sharing files		
		CD By Sharing files CD		
		Memory sticks		
		,	1x3	[3]

Question	Expected Answer	Mark	Total
7	This question should be marked in three sections. One mark for any valid answer.		
	Example answer:		
	First section		
	One mark for scrambled or encoded		
	Second section One mark for an expansion		
	Public keyPrivate key		
	Password or pass phrasePGP		
	Third section One mark for each need (max 2 marks)		
	Dentist has very personal information		
	 Lots of people could access data Dentist needs to send data to other dentists 	1x4	[4]
8	One mark for each correctly stated point up to four marks.		
	Example answers:		
	 A calculator is only useful when the calculations are simple 		
	Spreadsheets automatically update related cells		
	Spreadsheets can produce graphs		
	The Dental Surgery will need to calculate the cost of each stage of treatment.		
	 each stage of treatment The patient is also likely to want a printout of these 		
	 calculations Another advantage is a spreadsheet stores many of 		
	the calculationsIt is difficult to change the numbers you have entered		
	in a calculator		
	Spreadsheets use formulas	1x4	[4]

Question	Expected Answer	Mark	Total
9	One mark for each of the following key information:		
	 A link to another page The name of the dentist surgery Clear/simple design/appropriate Different styles or size of font/word art/graphics 	1x4	[4]

[Total Paper : 55]

Mark Scheme 2380/02 June 2007

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No half marks.

No credit for named software, unless qualified.

No marks for 'quicker', 'easier', 'cheaper', 'more efficient' unless further explanation relevant to the question is given.

Each line on the mark scheme below is worth one mark unless clearly shown otherwise. Items separated by / are alternatives. Items in brackets are not compulsory for the mark.

1			
		True? √	
	Each patient must agree to the storage of sensitive data about him/herself.	√	
	The practice must state the purpose for which the data is required.	√	
	The practice can collect any amount of data on each patient.		
	It does not matter if some of the data stored is inaccurate.		
	Data must be kept up to date.	√	
	Once data has been collected, it can be kept indefinitely.		
	The practice must take steps to ensure that data is not lost or misused.	√	
	One mark for each tick in the correct place (maximum four marks) Lose one mark for each tick over 4. No marks for ticking more than 6 boxes.).	4
2 (a)	One mark for each correctly stated point up to four marks.		
	 Example answers: multi media refers to the use of pictures (1 mark) sound (1 mark) 		
	 animation/video (1 mark) all combined to form a single page or presentation (1 mark) 		
	 saying it is a combination (1 mark). 		4
(b)			
	One mark for each correctly stated point up to two marks.		
	Example answers:		

3	One mark for each correctly stated device and one for the method.	
	Example answers:	
4	Device (do not accept voice activated): microphone (1 mark) scanner (1 mark) touch screen (1 mark) sketch pad/tablet (1 mark) trackable cursor (1 mark). One additional mark for the way the device is used/method: voice recognition software (1 mark) OCR (1 mark) tablet and hand writing conversion software (1 mark). One mark for each correctly stated point up to two marks for each device.	2
	Maximum four marks if the candidates have only mentioned advantages. To gain six marks, candidates must mention at least two disadvantages. Marks cannot be given for repeated advantages/disadvantages. The mark should be awarded once only.	
	Example answers:	
	Flash memory/memory stick:	
	DVD: Iarge data storage (1 mark) easy to store (1 mark) can get scratched (1 mark) need a DVD read-writer (1 mark) computer you transfer data to needs to have a DVD reader (1 mark).	
	 cheap (1 mark) easy and relatively high data capacity (1 mark) not as high a data capacity as a DVD (1 mark) need a CD read-writer (1 mark) easy to store (1 mark) can get scratched (1 mark). 	6

One mark for each correctly stated point up to two marks for each device. A maximum of two negative comments for each system, which implies an advantage of another system, can gain marks.

Marks cannot be given for repeated advantages/disadvantages. The mark should be awarded once only.

Example answers:

Networked desktop computer

One mark for its use:

- to store patient data (1 mark)
- to store appointments (1 mark)
- to collect data from external sources (1 mark).

One mark for valid explanation of benefit to dental practice:

- usually holds a large amount of data, which is useful for the dental surgery as they will have a large number of patients (1 mark)
- has a large screen to display more patient information (1 mark)
- fast this is useful to speed up the administration in the dental surgery (1 mark)
- permanent connection to internet allows the dentist to access data at will (1 mark)
- permanent connection to Intranet allows staff to share dental information (1 mark).

Notebook/laptop computer

One mark for its use:

- to keep up to date with personal emails (1 mark)
- to work outside the office (1 mark).

One mark for valid explanation of benefit to dental practice:

- takes up less desk space useful in a dental surgery if space is limited (1 mark)
- small and light can be carried around easily by the dentist (1 mark)
- portable can be used in the surgery and at home (1 mark)
- can run off batteries no trailing power leads in the dental surgery (1 mark).

Palmtop computer/PDA

One mark for its use:

- to keep personal diaries up-to-date (1 mark)
- to receive emails when out of the office (1 mark).

One mark for each valid benefit to dental practice:

- very portable a dentist can keep it in his pocket (1 mark)
- has a touch sensitive screen easy for the dentist to enter data (1 mark)
- lower memory than a desktop (1 mark)
- cheap to run (1 mark)
- low power consumption (1 mark).

6

6	(a)	One mark for each correctly stated point up to two marks.				
		Example answers:				
		DVD or CD (1 n	nark)			
			r paper based or c			
		any form of inst	ructions e.g. instal	lation (1 mark).		2
	(b)	One mark for you ag	ree to a licence b	by opening it (1).		
		One mark for each c	orrectly stated pe	oint up to one ma	ırk.	
		Example answers:				
			ing an agreement	•		
			osting back an agr	• • •	(4	
		-	you nave may na original copy (1 m	ve used the softwa	are (1 mark)	2
		tells you it is all	original copy (1 II	iaik).		
7		One mark for each c	orrectly stated po	oint up to six mar	rks.	
		Example answers:				
		 easy to make a 	conv (1 mark)			
		-	ded from the inter	net (1 mark)		
				opies exist (1 marl	k)	
		 can be stolen from 	om home (1 mark)			
			friends (1 mark)			
			• •	eived as theft (1 m	•	
		_		/ obtained (1 mark	·)	
		can easily be hi	dden/detected (1 i	пагк).		6
8		One mark for each ti	ck in the correct	place (maximum	six marks).	
		Lose one mark for ea				
		No marks for ticking	more than 8 box	es.		
			Canusiahtad	Charaviara	Dublic	- I
			Copyrighted Software	Shareware	Public Domain	
			Software		Software	
		Legal to make		1,,		1
		copies		У	У	_
		Legal to sell a copy			у	
		Legal to give a		у	у	7
		copy to a friend		У	У	4
		Protected by law	у			6
		L	1	1	l	_ _

9 (a)	One mark for each correctly stated point up to six marks.	
	Example answers:	
	random numbers and letters best (1 mark)	
	hard to remember (1 mark)	
	names too easy to search for (1 mark)	
	if you write it down people could find the paper (1 mark)	
	could jumble up own initials and date of birth (1 mark)	
	could not access if password forgotten (1 mark).	6
(b)	One mark for each correctly stated point up to one mark.	0
	Example answers:	
	limit access to computers (1 mark)	
	add a bio recognition device (1 mark)	
	use a firewall (1 mark).	1
10	This question should be marked in three sections.	
	One mark for any valid answer.	
	Example answers:	
	First section	
	One mark for scrambled or encoded (1 mark)	
	Second section	
	One mark for an expansion	
	public key (1 mark)private key (1 mark)	
	password or pass phrase (1 mark)	
	PGP (1 mark).	
	Third section	
	One mark for each need (maximum two marks)	
	dentist has very personal information (1 mark)	
	lots of people could access data (1 mark)	
	dentist needs to send data to other dentists (1 mark).	4

One mark for each valid reason that must be linked to a dentist's need. Marks can be given for each separate expanded reference to the chart headings.

Example answers:

Reasons could relate to:

- ease of use
- speed
- data size
- compatibility with existing software
- price.

No marks will be given for simply stating the title. The candidate MUST relate the reason given to the dental practice needs eg speed will be very important as the dentist has to scan in documents (1 mark) although my database is low resolution dentists would not want big files (1 mark).

Maximum of 6 marks for only stating advantages.

Example answer:

I would select database B because ease of use will be important to the dentist $\sqrt{1}$ as they will have lots of different people access the data $\sqrt{1}$. The data is also fast and this will be important in a busy dentist $\sqrt{1}$. The data size is small but the dentist will not have millions of patients $\sqrt{1}$. The cost is average and dentists will not want to spend too much on this type of software $\sqrt{1}$. D is much cheaper but is hard to use, slow and also lacks compatibility $\sqrt{1}$. The biggest drawback of my choice is compatibility with existing software $\sqrt{1}$ but the dentist could commission someone to re-enter the data $\sqrt{1}$.

8

12 Document templates

One mark if answer shows candidate has an understanding of use of document templates to maintain house style, additional two marks for each correctly stated point.

Example answers:

- a pre-formatted document in which you type in your text (1 mark)
- line spacing (1 mark)
- header fonts (1 mark)
- type size (1 mark)
- already defined style/layout (1 mark).

Formatting text by using styles

One mark for each correctly stated point up to two marks.

Example answers:

- a style is a set of formatting characteristics that you can apply to text or tables (1 mark)
- a style is used to quickly change a document's appearance (1 mark)
- when you apply a style, you apply a whole group of formats in one simple task (1 mark).

5

13	One mark for each correctly stated point up to four marks.									
	Example answers:									
	 a calculator is only useful when the calculations are simple (1 mark) 									
	the Dental surgery will need to calculate the cost of each stage of									
	treatment (1 mark)									
	 the patient is also likely to want a printout of these calculations (1 mark) 									
	 another advantage is a spreadsheet stores many of the calculations (1 mark) 									
	 it is difficult to change the numbers you have entered in a calculator (1 mark) 									
	 costings on a spreadsheet can be integrated into other documents. This is not possible using a calculator (1 mark) 									
	• graphs (1 mark).	4								
14 (a)	One mark is awarded for:									
	set database field									
	add verification									
	add validation.									
	An additional mark is awarded for the expansion eg:									
	set as a date field									
	 any form of verification eg double enter the data or the use of a hardware or software verifier 									
	any relevant validation method eg loop or number range.	2								
(b)	(i) Answer:									
	A valid description eg a field is a single piece of data (1 mark).	1								
	(ii) Answer: A record is all the data for one patient (1 mark).	1								
15	Marks are awarded for:									
	 clarity (good clear layout of both pages) (1 mark) 									
	 appropriate content on both pages (eg relevant titles on both = 1 mark) 									
	 essential elements (graphics on hygiene page, forms on dental products ordering page) 1 mark each = 2 marks 									
	submit button on ordering page 1 mark									
	 links (back to home page on both pages) 1 mark for each = 2 marks 									
	house style (layout or colour similarity across both pages) 1 mark.	8								
	Total Marks	80								

General Certificate of Secondary Education ICT Syllabus B (Specification Code 1095/1995) June 2007 Assessment Series

Unit Threshold Marks

U	nit	Maximum Mark	a*	а	b	С	d	е	f	g	u
2377F	Raw	40	-	-	-	37	33	29	26	23	0
	UMS	55	ı	-	ı	48	40	32	24	16	0
2377H	Raw	40	38	34	30	26	23	21	-	1	0
	UMS	80	ı	64	56	48	40	-	-	-	0
2378	Raw	64	62	53	44	36	30	25	20	15	0
	UMS	120	ı	96	84	72	60	48	36	24	0
2379	Raw	64	62	53	44	36	30	25	20	15	0
	UMS	120	ı	96	84	72	60	48	36	24	0
2380F	Raw	55	-	-	-	36	30	25	20	15	0
	UMS	55	ı	-	ı	48	40	32	24	16	0
2380H	Raw	80	53	46	39	33	27	24	-	-	0
	UMS	80	-	64	56	48	40	-	-	-	0

Specification Aggregation Results

Overall threshold marks in UMS (i.e. after conversion of raw marks to uniform marks)

	Maximum Mark	A *	Α	В	С	D	E	F	G	U
1095	200	180	160	140	120	100	80	60	40	0
	Maximum	A *	Α	В	С	D	Е	F	G	U

	Maximum Mark	A *	A	В	O	D	ш	F	G	ט
1995	400	360	320	280	240	200	160	120	80	0

The cumulative percentage of candidates awarded each grade was as follows:

	A *	A	В	С	D	Ш	F	G	U	Total No. of Cands
1095	3.2	14.6	34.4	55.3	69.4	80.0	89.6	96.6	0	14813
1995	2.6	14.2	38.5	63.8	78.8	88.4	94.6	98.6	0	9077

For a description of how UMS marks are calculated see; http://www.ocr.org.uk/exam_system/understand_ums.html

Statistics are correct at the time of publication

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