UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Advanced Subsidiary Level and Advanced Level

MARK SCHEME for the June 2005 question paper

9691 COMPUTING

9691/02 Paper 2 (Practical Tasks), maximum raw mark 60

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 Examiners were initially instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began. Any substantial changes to the mark scheme that arose from these discussions will be recorded in the published *Report on the Examination*.

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 must be read in conjunction with the question papers and the *Report on the Examination*.

 CIE will not enter into discussion or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the June 2005 question papers for most IGCSE and GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses

Grade thresholds for Syllabus 9691 (Computing) in the June 2005 examination.

	maximum	minimum mark required for grade:		
	mark available	А	В	E
Component 2	60	54	52	40

The thresholds (minimum marks) for Grades C and D are normally set by dividing the mark range between the B and the E thresholds into three. For example, if the difference between the B and the E threshold is 24 marks, the C threshold is set 8 marks below the B threshold and the D threshold is set another 8 marks down. If dividing the interval by three results in a fraction of a mark, then the threshold is normally rounded down.

June 2005

GCE A/AS LEVEL

MARK SCHEME

MAXIMUM MARK: 60

SYLLABUS/COMPONENT: 9691/02

COMPUTING
Paper 2 (Practical Tasks)

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The mark points indicated on the mark scheme are listed below. Indicate with a tick where each mark has been awarded.

Please note that where a **Maximum Mark** is indicated, candidates cannot be awarded anything greater than that amount, even if the number of ticks against mark points exceeds the maximum. If the number of ticks is less than the maximum, then the number of ticks is the mark to be awarded.

Please ensure that you attach this mark sheet to each candidate's work.

1 (a)		each of the following attributes, providing it has been ven an appropriate data type.	√
	Lecturer Table	Max 4 ma	arks
	Lecturer ID	A unique field	
		Appropriate data type	
	Lecturer name	Gives name of the lecture	
		Text string type	
	Office	Identifies the lecturer's office	
		 Alphanumeric string type contains 2 uppercase letters, 3 digits 	
		Validation/mask for Office ID	
	Phone	4-digit telephone number	
		Numeric string type	
		 Validation/mask for phone number 	
	Module Table	Max 2 ma	arks
	Module ID	A unique field	
		 Alphanumeric string type - 2 letters, 4 digits 	
		Validation/mask for module ID	
	Description	Name of the module	
		 Text string type 	
	Module/Lecturer	table Max 2 ma	arks
	Module ID	A unique field	
		Alphanumeric string type	
		 Validation/mask for module ID 	
	Lecturer ID	A unique field	
		Appropriate data type	
	• 1 mark if key	/ for lecturer table has been clearly specified	
	• 1 mark if key	/ for module table has been clearly specified	
	-	for ModuleLecturer table has been clearly specified ite key (both attributes)	
ax 11 marks		Sub-total 1 (a)	

Page 2	Mark Scheme	Syllabus	Paper
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		√
(b) (i)	The form has a clear heading and description of its purpose	•
(6) (1)	The form has a clear fleading and description of its purpose There are boxes for all the attributes need to be input	
Max 2 marks	Sub-total (b) (i)	
Wax Z IIIai KS	Sub-total (b) (i)	
(ii)	The form has a clear heading and description of its purpose	
(,	There are boxes for all the attributes need to be input	
Max 2 marks	Sub-total (ii)	
(iii)	The form has a clear heading and description of its purpose	
	There are boxes for each attribute	
	The values can be chosen from the list	
Max 2 marks	Sub-total (iii)	
(c)	The user is asked for a lecturer's ID	
	This can be chosen from a list	
	A correct list of modules is produced	
Max 2 marks	Sub-total (c)	
(1)		
(d)	There is a heading describing the purpose of the list	
	The report has a date	
	The page(s) are numbered	
	All the modules are listed	
	In module ID order All the least war for a set was data and listed.	
Max 3 marks	All the lecturers for each module are listed Sub total (d)	
wax 3 marks	Sub-total (d)	
2	Give 1 mark for each sequence enclosed in parentheses and 1 mark	
2	for the output	
	N.B. Candidates are not expected to include the parentheses; these	
	are for marking purposes only.	
(i)	(1,2,) (4,5,6,7,8,9,10,11,) (27,28,30,31,32,33,34)	
	Output: Invalid string	
Max 4 marks	Sub-total 2 (i)	
,		
(ii)	(1,2) (4,5,6,7,8,9,) (11,12,13,14,15,16,18,19,20,21,) (25,26,)	
	(12,13,14,15,21,22,24,25,26,) (12,26,27,28,29,30,32,33,34)	
May 7 marks	Output: Valid string	
Max 7 marks	Sub-total (ii)	
(iii)	(1,2,4,5,6,7,8,9) (11,12,13,14,15,16,18,19,20,21,)	
(''')	(25,26,12,13,14,15,) (21,22,24,25,26,12,13,14,15,16,17,18,20,21,)	
	(25,26,12,) (26,27,28,30,31,32,33,34)	
	Output: Invalid string	
Max 7 marks	Sub-total (iii)	

Page 3	Mark Scheme	Syllabus	Paper
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		✓
3 (a)	User can only enter digits 0 and 1	
, ,	User can choose one of the four operators (+ , - , * , /)	1
	There are three boxes, two for data entry and one for output	1
	There is a clear button	
Max 4 marks	Sub-total 3 (a)	
(b)	The code is well annotated	
	Meaningful names have been used throughout	
	The function will accept binary number (or string of binary digits)	
	The function correctly returns the decimal equivalent	
Max 4 marks	Sub-total (b)	
(c)	The code is well annotated	
	 Meaningful names have been used throughout 	
	 The function will accept a decimal number 	
	 The function correctly returns the binary equivalent 	
Max 4 marks	Sub-total (c)	
		1
(d)	The code is well annotated	=
	Meaningful names have been used throughout	=
	There is correct code for all four functions	
Max 3 marks	Sub-total (d)	
		1
(e)	There is a set of test data for each operation	
	The code correctly adds two binary numbers	
	The code correctly subtracts two binary numbers with a positive	
	result	-
	The code correctly subtracts two binary numbers with a negative	
	result The code correctly multiplies two binary numbers	-
	The code correctly multiplies two binary numbers The code correctly divides two binary numbers.	-
Max 5 marks	The code correctly divides two binary numbers Sub total (a)	
wax 5 marks	Sub-total (e)	
	Total (Max 60)	1
i	i Giai (Max 00)	1