



ASSESSMENT and
QUALIFICATIONS
ALLIANCE

Mark scheme

June 2003

GCE

Computing

Unit CPT3

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- **Marks*** mean that the marks for that (part) of question are dependent on the evidence.

Qn.	Answer		Mark	Evidence	Total Mark
1a	For two extra fields; name (1 mark), Date received; - Date returned; Original Grade; Re-mark Grade; A both dates or both grades + similar use <i>Other fields accepted if used appropriately, but if not obvious, use must be sensible</i> e.g. Original Examiner; Re-mark Examiner; Centre address A Remark_ID (primary key field)	& logical use (1 mark); } to check that re-mark is turned round within 3 } weeks; } to find if remark changes grade; }	1 + 1 1 + 1		
	Evidence i of definition, ii of <u>use</u> <i>Look at page, and continuation page if obvious, Allow 2 or 3 references.</i>	i. Coding of definition / table design view/ written description in design section / spreadsheet design ii. coding of use / query design / formula view / output clearly using specified field		1 1	6*

1b	<i>Candidate No.</i> text / string; A Integer R Number, Long Integer <i>Scripts return</i> Yes/No / Binary /Boolean / Text 1 (3) char long; R alpha <i>Original mark</i> Integer; A Byte, Percent to 0 dp R Number, long integer <i>1 mark for type, 1 for reason.</i>	most efficient way of storage / because of leading zero; Whole number, R no calcs required < 32,000 Only 2 possible answers; always a whole number; <i>If wrong type, reason not given.</i>	1 + 1		
2a i	Appropriate method used; Details of method in action; <i>e.g.</i> <i>IF <u>subject_code</u> = <u>required_subject_code</u> THEN ...</i> <i><u>Filter on <u>subject code column</u> in spreadsheet</u></i> <i><u>QBE with <u>subject code</u> criteria</u></i> <i><u>SELECT details WHERE <u>Subject Code</u> = <u>required_subject_code</u></u></i>	e.g. IF statement / Filter / QBE / SELECT A Search R Look for	1		
	<i>Allow method only for (i); not (ii) and (iii). Must be able to produce hard copy list by method given.</i>				
	Evidence – must be coding / QBE design grid. SS special case where explanation of filters accepted			1	3*

2 a ii	Fields for both grades / use lookup to find grades;		1		
	Extra field for / calculate difference between grades;		1		
	// IF LOOKUP(original grade) <> LOOKUP (re-mark grade)	<i>1 mark for IF function, 1 mark for working 'LOOKUP' function</i>	2		
	// SELECT / QBE etc. marked as above	<i>No need to test that mark has changed as if it hasn't, the grade will not change anyway. Not wrong if they have done so.</i>	2		
	Evidence – hard copy of list			1	3*
2 a iii	Date received field; (even if given in Qn 1)		1		
	Today's date input / stored;	A date returned / remarked field	1		
	Extra fields for /calculate difference between dates /other suitable use to filter required records ;		1		
	Evidence – coding or hard copy			1	4*
2b	Repeat....Read next record....until EOF / While Not EOF DO;	A SQL – max 3 marks	1		
	IF Remark_date = Today's _date;		1		
	Compare old and new grades;		1		
	IF grades unchanged THEN;		1		
	Print details;		1		
	Good flow of logic;		1		
	<i>1 mark per point</i>				5
		<i>To max</i>			

3a	Appropriate steps for placing logo: Any 3 points <i>e.g. scanned in logo from spec. / re-created it from ClipArt; saved it as a (type specified) file; importing / inserting; placing / sizing; set it up in a template / report / printed to provide pre-printed stationary;</i>	Max	3		
	Evidence Hard copy of report with Logo			1	4*
3b	Other criterion for good design; Method of achieving this; For two such criteria each: <i>e.g. spacing of information; clear layout; specific contents as specified in brief; other if appropriate;</i>		1 1		
	Evidence Other design criteria 1 mark each to max:	A if document not hard copy, (may be design) or not referenced.		2	6

4a	Simple validation rule / method; Need type of rule, details Other workable method accepted;	A I would have.... with suitable method <i>Details of rule should be in context</i>	1		1
4b	Test data of two candidates with same number from different centres; If two candidates were doing same subject; // composite primary key on remark record; Centre no & candidate number; // Use auto-number / different primary key; // Set centre number to no duplicates; Candidate number to duplicates – yes; //Alternative valid suggestions accepted;;	A compound key;	1 1 1 1		
	<i>Evidence:</i> printout showing this / written explanation / table in design view with composite key / test plan with evidence of some testing.	Can be given even if test data not given.		1	3*
4c	Example of test data being increased + evidence Example of test data being decreased + evidence	<i>Output showing mark increased / decreased. Test plan with evidence of some testing.</i> <i>Can evidence mark even if (i), (ii) not given..</i>	1 1	1 1	4*
5a	Candidates (many) are entered from (one) Centre; Candidates (many) take (many) subjects; A many ~ one (as that is the case for this spec.) Centres (many) enter candidates for (many) subjects;	<i>1 mark for each correct relationship;</i> A relationship diagram from Access if shows 1 to many	1 1 1		3

5b	Interview with; Questionnaires to: Look at documentation; Observation of; <i>Other suitable, but must be different.</i>	subject officer (suitable manager); Centres; past records / statistics; old system; <i>Data source accepted on its own, method needs source for credit.</i>	1 + 1 1 + 1		4
6a	Validation Rule; Second entry; Visual check; System check; Control totals ' check digits; OCR / scanner for candidate details; A input masks <i>For 1 suggestion, up to 2 marks.</i>	Mark ≤ 100 / range check / presence check on specified field(s); in verification mode; by a second person; on all amendments; on batches of data entered; to eliminate human error at this stage; A Referential integrity if explained <i>1 mark for method, 1 for expansion relating to their solution</i>	2		2
6b	Physical locks, cards; network firewall; encrypt data; Keys / cards / biometric identification (e.g. retina scan); (password protected) screen savers; system password / Log off terminals; log of network users;	controlled entry to locations; which controls access through to the database; so unintelligible to casual user / use a key to encode file; for registered users; which come in after the computer has not been used for so-many minutes; to restrict access to network / workstation / when not in use; <i>up to 2 marks for each of 2 suggestions to max :</i>	4		4

7a	Comparison with original objectives; Number of complaints; Number of breakdowns / maintenance incidents; Cost of a remark compared to old system; Turnaround time for a remark; Data volumes as anticipated; Ease of Use / user feedback / measure of user satisfaction;	<i>1 mark for each of 3 suggestions to max:</i> <i>Must be in context.</i>	3		3
7bi	There may be a need to add another part to the system; An error may have been discovered once the system was up and running; There may be a better / more efficient / way of doing some part; Change in Technology R Change in grade boundaries, new subjects	<i>Adaptive, corrective, or perfective accepted if explained.</i> <i>1 mark for one reasonable suggestion</i>	1		1
7bii	Annotated listing of program / macros; Functional description of modules; Description of all formulae used / formula view; Testing procedures, including test data used with results; Data dictionary / list of variables; File structure documentation; System requirements; Data flow diagrams; System flow charts; Forms, reports, queries, tables in design view; A ER Diagrams;	<i>1 mark for each of 3 items to max</i>	3		3
	TOTALS		54	11	65