GCE 2004
June Series

AQA

ASSESSMENT and
QUALIFICATIONS
ALLIANCE

Mark Scheme

Computing
Unit CPT3

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.

Computing: Unit CPT3

The following notation is used in the mark scheme

- **; - means a single mark;**

- **/ - means alternative response;**

- **A – means acceptable creditworthy answer;**

- **R – means reject answer as not creditworthy;**

- **I – means ignore.**

Q	Answer	Notes **starred marks dependent on evidence**	Mark	Evidence	Total Mark
1a	Evidence;	Coding where data items set up / Table design view / written description in Design section including name & data type		1	
1b	car registration text /char /string 7/8/9;; number of tyres integer/byte 1/not needed <u>only if integer</u>/ 1 byte ;; **TO** 1 character **R** Number tel – no text /char/string 10 - 20;; NB if c(iii) states formatted with leading zeros **A** integer mark as C/B	Field lengths suggestions only – reasonable values accepted, but these answers to be <u>most suitable for solution</u> 1 mark ea. to max:	2* 2* 2*		
1c	car reg. mixed characters & digits; number of tyres whole number/between 1 and 5; tel – no leading zeros/spaces/other chars ; **A** No properties of a number e.g. no calculation		1 1 1		10

| 2a | COMPANY/CUSTOMER{<u>CompanyID</u>,
CompanyName, ContactName, PhoneNo, Address,
Postcode, DiscountGiven} ;;

CAR{<u>CarReg</u>, CompanyID, ……….} ;;
A vehicle identification number as primary key
A company name instead of company id if specified as
primary key above

TYRE{<u>TyreType</u>, ManufacturersCode, CustomerPrice,
QtyInStock} ;;
A ManufacturersCode as Primary Key

FITTING{<u>CarReg, Date</u>, Mileage, NoOfTyres} ;;
A Fitting/Invoice number as primary key

A any identification of correct primary key
A plural table names | These are minimum.
1 mark for key field, 1
for all others specified
ignore any extra fields

Primary key not
underlined penalise
once then take first field
only.

A underlined primary
key in any position | 8 | | |
| 2b | Foreign key - a field which is a (primary) key field in
one table / record;
 and also an attribute in a second;
A table linkage
// e.g. CustomerID is the key field of the customer file;
and an attribute in the car file;

composite key - a record identifier made up of more
than one field;
 because no one field uniquely identifies a record;
// e.g.   CarReg and Date;
both required to identify a tyre fitting; | | 1
1

1
1 | | 12 |

3	A Tyre type; B Cost of tyres **A** any Customer details; C any details of new tyres fitted; D <u>details</u> for invoice; **A** example of single detail **R** invoice	Ignore any extra details	1 1 1 1		4

4a	Evidence that some customers allowed a discount;	Discount field setup or used coding / query of selection screen dump / hard copy showing customers selected invoice with discount mentioned either given and not given		1	
	Search / query / select / IF….THEN; extra field in customer record / other workable approach;		1* 1*		
4b	Evidence of coding for calculations	Coding / expression		1	

	Multiply number of tyres by tyre price;
	If discount
	
	    then subtract 5% / multiply by .95;
	    else leave unaltered
	calculate 17.5% /VAT rate of price /OR multiply by 1.175;
		1 per point to max	max 4*		

4c	Evidence	Hard copy of invoice must contain Invoice number <u>top right</u> Date Company Name Post Code Telephone Number Car Registration Number Number of Tyres Price (total and/or individual) VAT		1	
	print 2 copies; use 2-part ncr paper with impact printer; two copies on single page:	workable solution	1*		10*

5a	Evidence of validation of CarReg;	coding / input mask /test **R** screen dump of message box out of context		1	
	validation rule / input mask / coding for validation; action to be taken;		1* 1*		
5b	Evidence of test plan showing testing number of tyres;			1	
	0/1/5/6; example of erroneous data eg letter / blank/ number <0 or >6;		1* 1*		
5c	Evidence of test on accuracy of calculation;	could be a manual check		1	
	Method of checking: Compare invoice calc with other calc;		1* 1*		9*

6	Standard text available; Search for latest fitting record for each car; Identify/extract cars with latest fitting date greater than 1 year ago; Mark each record showing letter sent; Get current tyre price; Calculate quotation figure; Combine with standard text to form report e.g. mailmerge;	1 per point to max	5		5

7a	A standard format; for a type of document which is used frequently; into which specific text is inserted as required;	1 per point to max	2		
7b	Typeface /font used / size / colour/; Margins/Layout; use of logo; positional settings; standard text;	1 per point to max	3		5
8	Buy hardware; Set up hardware; Load software; Enter data; Test system; Train staff;	1 per point to max	4		4

9a	Modem; <u>Contract</u> with ISP; Browser/FTP/Telnet/Software to connect to an ISP; Telephone connection e.g. ISDN line, ADSL / cable/ satellite	1 per point to max	2		
9b	Faster communication than mail; Save on postage costs; message can wait if not available on phone; proof of delivery with read receipt; Can send same message (advertising new services) to all customers in one shot;	1 per point to max	2		
	Get up-to-date prices from supplier; Can down-load electronically - easier than typing prices in/cheaper to buy on-line; Set up his own web page/site; Advertise to attract new custom; Search the Internet for competitors; Compare prices so he remains competitive; Contact customer's mobile phone to inform car ready; Customer can collect car more quickly; **A** use of fax machine	1 mark for valid use, 1 for appropriate benefit to max	2		6

END OF CPT3 MARK SCHEME