

**Coursework Task**

**Higher Information Systems**

*Valid for session 2008/2009 only*

**Please read Section I carefully before issuing materials to candidates.**

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## Coursework Task

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## **Section 1**

### **Organisation and conditions for assessment**

## Organisation and conditions for assessment

The assessment is designed to test the candidate's ability to apply knowledge and understanding and practical skills, developed through study of the Relational Database Systems and Using Information units. The mark out of 60 should be submitted to the SQA unscaled. This will be combined with the examination mark out of 140 to establish the candidate's overall grade of award. This mark should also be used in conjunction with internal examination marks or other evidence in the preparation of a candidate's estimated grade of performance.

The notional design length for the assessment is 8–10 hours. However, a candidate may be permitted additional time if required.

The assessment is to be undertaken under "open book" conditions, but under the supervision of a teacher or lecturer to ensure that the work submitted is the candidate's own work. The teacher or lecturer may give the candidate guidance and/or help if requested. Any such help should be reflected in the marks awarded. Once the task has been completed and marked, it should not be returned to the candidate for further work.

These instructions are designed to be used in conjunction with data files provided with the electronic distribution of the task. These can be downloaded from the SQA secure website.

Please note special instructions for this years task on pages 6 to 8.

**Two versions of a database are being supplied this year. It is essential that candidates are issued with the correct version at the appropriate times. They must not be given access to the second version until they have submitted answers to prior tasks.**

## Special Arrangements for Higher Coursework 2008-09

### Centres are asked to pay special attention to the following arrangements.

Candidates are not required to spend time entering data into a database. Instead, the data should be prepared beforehand and provided to candidates by the centre.

To facilitate this, Microsoft Access (2000 format) and Filemaker (v.5) as well as text (tab) delimited and csv data files have been provided. It is intended that candidates will be provided with **two versions** of the database.

The **first database** contains all 4 tables that the candidate will be required to edit as part of Task 2. Each table will have all attributes present but all attributes will be default text type – ie no keys, formatting, validations, relationships etc. The database should **not be populated at this time**. Candidates will be required to modify the database structure to match the data dictionary issued to them at the start of Task 2. Candidates will be required to submit a printout of the Documenter (or equivalent) as evidence for Task 2. Candidates will **not** use their database structures to complete Tasks 3-5. Instead, centres should issue candidates with the second, fully populated database.

The **second database** will be a complete implementation of the system. This will include all validations, relationships etc – ie an exact implementation of the data dictionary provided to candidates at Task 2. This working database should be issued to candidates **after** Task 2 has been submitted. Candidates **must** use this working database to complete Tasks 3-5.

Microsoft Access and Filemaker files are provided. Centres using other systems will require to create both versions of the database from the tab separated and csv files provided. These files can also be used if centres encounter any difficulties with the supplied Access or Filemaker databases.

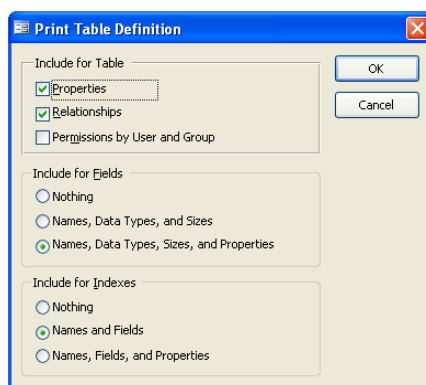
Additional notes follow which detail how candidate evidence is to be generated.

## Notes:

Candidates should be given a copy of the marking grid from Section 3 (**not** the detailed marking instructions) before starting the task so that they are aware of the mark distribution for each part.

The entire Coursework task consists of seven tasks. Centres should take note of the points detailed below for each task.

- Task 1 can be completed using a hardcopy of the proforma provided or can be produced by the candidate. **Task 1 must be completed and data dictionary handed in for marking before the materials for Task 2 are issued.**
- Task 2 asks for a “printout or hardcopy of the table structure showing field types and validation checks etc”. This is to provide evidence that the correct field types have been used and all necessary validation checks implemented. **Centres should note the additional information in the detailed marking instructions indicating acceptable evidence.** Producing this **printout** is NOT part of the task and if a candidate has difficulty then the assessor should help them.
  - In FileMaker Pro8, to get a printout of the design, candidates should adhere to the following instructions.
    - (1) Select the “Define” option from the File menu and then select the “Database” option from the sub-menu.
    - (2) Click on the Tables tab.
    - (3) Highlight both tables by clicking on the name of the first table then holding down the shift key and clicking on the other table.
    - (4) Click on the Print button.
  - In MS Access, to get a printout of the design, candidates should adhere to the following instructions.
    - (1) Select the “Analyze” option from the Tools menu and then select the “Documenter” option from the sub-menu.
    - (2) Select the table(s) required and then click Options button.
    - (3) Make sure that the following options are checked/selected:
      - Include for Table
        - Properties
        - Relationships
      - Include for Fields
        - Names, Data Types, Sizes and Properties
      - Include for Indexes
        - Names and Fields
    - (4) Required table design is displayed on screen and can be printed.



- Task 2 also requires a printout or hardcopy of the relationships.
  - Printing Relationships in FileMaker 8.
    - (1) Select the “Define” option from the File menu and then select the “Database” option from the sub-menu.
    - (2) Click on the Relationships tab then click on the Print button.
  - Printing Relationships in Access
    - (1) Open the Relationships window.
    - (2) Select the “Print Relationships” option from the File menu.
- Tasks 3-5 must be completed using the complete database created by or provided to the centre. **Candidates should only be issued with this database after submission of Task 2 evidence.**
- Task 5 requires a further printout of macros/scripts. **Centres should note the additional information in the detailed marking instructions indicating acceptable evidence.**
- Task 6(a) can be completed using a hardcopy of the proforma provided or can be produced by the candidate.
- Task 6(b) requires inclusion of 2 articles – the **content** of article 1 is **not** being assessed, provided it meets the requirements of the task. The **content** of article 2 **is** being assessed and should include the issues suggested to candidates.
- Task 7 requires candidates to produce a report – candidates have been provided with a sample layout.



## **Section 2**

### **Coursework Task**

## Coursework Task: GoGoGadgets.com

### Higher Information Systems Coursework Task 2008-2009

#### Background

GoGoGadgets.com is a website that specialises in quirky and unusual gadgets that are available for purchase through its on-line catalogue. Before customers can make a purchase from the website, they must first register with GoGoGadgets. Customer details are stored by GoGoGadgets in a **Customer** table. On registering, customers are notified by e-mail of their unique customer ID which must be used in all future purchases.

GoGoGadgets' product range is stored in a table called **Item** and these items can be browsed through an on-line catalogue. Each item is categorised as one of the following: Boys Toys, Girls Gizmos, Office Distractions, Personal Grooming and Computer Accessories. All items cost less than £50.

When placing an order, customers must first log-in and create a new order – this order is added to an **Order** table. Customers can then add items from the catalogue to an order. More than one item can be added to a given order. Each individual item ordered is stored in a separate table called **OrderLine**.

A relational database has been set up to store details of customers, items, orders and order lines.

The normalised data model for GoGoGadgets has been produced, as follows. (Primary keys are shown in **bold and underlined**, while asterisks (\*) indicate foreign keys.)

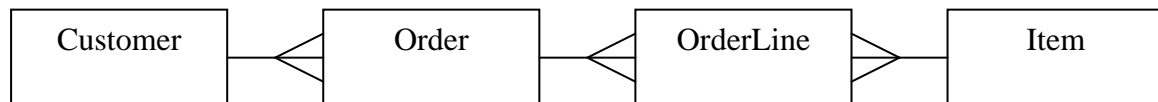
Customer    (**Customer ID**, Forename, Surname, Address1, Address2, Address3, Postcode, Customer\_email)

Item        (**ItemID**, Description, Category, Price)

Order       (**Order No**, Customer ID\*, OrderDate, OrderDispatched)

Orderline   (**Order No\***, **Item ID\***, Quantity)

The entity-relationship diagram for the system is shown below.



A data dictionary has been produced prior to implementation in a relational database. Part of this is shown overleaf.

Entity	Attribute	PK/ FK	Data Type/Size	Unique	Required	Validation	Format
Customer	CustomerID	PK	Number	Y	Y	>=0001 and <=9999	0000
	Forename		Text (10)	N	Y		
	Surname		Text (15)	N	Y		
	Address1		Text (20)	N	Y		
	Address2		Text (20)	N	N		
	Address3		Text (20)	N	Y		
	Postcode		Text (8)	N	Y		
	CustomerEmail		Text (25)	Y	A		
Item	ItemID	PK	Number	B	Y		0000
	Description		Text (50)	N	Y		
	Category		Text (20)	N	Y	C	
	Price		Number	N	Y	<50	Currency
Order	OrderNo	PK	Number	Y	Y		0000
	CustomerID	FK	Number	N	Y	D	0000
	OrderDate		Date	N	Y		dd/mm/yyyy
	OrderDispatched		Date	N	N		dd/mm/yyyy
OrderLine	OrderNo	PK/FK	Number	E	Y	Lookup from Order	0000
	ItemID	PK/FK	F	N	Y	Lookup from Item	0000
	Quantity		Number	N	Y		

For text attributes, the number in brackets indicates the size of the attribute (number of characters).

In the Format column, the symbols

- 0 represents a single digit
- d, m and y indicate digits used to represent the day, month and year in a date field

Task		Evidence Required
1	Using the background information provided, complete the data dictionary by making appropriate entries in the Task 1 Proforma.	Task 1 Proforma (Appendix 1)

**You must now submit your answer to Task 1 to your teacher/lecturer.**

Before attempting the tasks in this section ask your teacher/lecturer for a completed data dictionary.

You will also need access to pre-prepared database tables.

You **MUST** complete tasks in the sequence indicated.

Task	Evidence Required
<b>2</b> A database has been set up containing the Customer, Item, Order and OrderLine tables.	
(a) Edit the structure of each table to ensure it matches the data dictionary provided. You should pay particular attention to; <ul style="list-style-type: none"><li>• primary and foreign keys</li><li>• data type/size</li><li>• unique</li><li>• required</li><li>• validation</li><li>• format</li></ul>	Hardcopy (printout or screenshots) of table structure including field types, validation checks etc.
(b) Set up/edit the relationships between all the tables as indicated by the entity-relationship diagram.	Hardcopy (printout or screenshots) of relationships between tables.

**You must now submit all hardcopies for Task 2 to your teacher/lecturer.**

Ask your teacher/lecturer for the complete database. This database must be used to carry out Tasks 3-5.

You are an employee of GoGoGadgets. One of your tasks is to produce invoices for each customer which details all of their orders for the finance department. These invoices need to show all items ordered, the individual item totals, the order total and the overall total for all that customer's order.

A sample invoice for customer Karen Springer is shown below.

Customer Invoice		CustomerID 0023			
		Karen	Springer		
Order No	4582	Order Date	21/09/2008		
ItemID	Description	Category	Price	Quantity	Total Price
1701	Foot Massager	Personal Grooming	£23.00	1	£23.00
Order Total					£23.00
Order No	2051	Order Date	14/06/2008		
ItemID	Description	Category	Price	Quantity	Total Price
6526	Miracle Eye Cream	Personal Grooming	£18.00	2	£36.00
3188	Mini Shaver	Boys Toys	£7.00	3	£21.00
Order Total					£57.00
Order No	4734	Order Date	22/12/2007		
ItemID	Description	Category	Price	Quantity	Total Price
9323	Electronic Parking Aid	Girls Gizmos	£32.00	1	£32.00
Order Total					£32.00
Order No	6212	Order Date	21/12/2007		
ItemID	Description	Category	Price	Quantity	Total Price
6584	Alpine Army Watch	Boys Toys	£34.00	2	£68.00
4908	Bunion Corrector	Personal Grooming	£11.00	2	£22.00
5472	USB Foot Warmer	Computer Accessories	£13.00	2	£26.00
Order Total					£116.00
				Invoice Total	£228.00

Task	Evidence Required
3	Using appropriate database functions create an invoice for customer Luke Muirhead, customer ID 7853. The layout should be similar to the one shown above. The data should be sorted with the most recent order first.
	Printout of report/layout

GoGoGadgets ran a promotion in the run up to Christmas by offering a 5% discount to the total of any order placed in December 2007. A report was generated so that Head Office could analyse the impact of that promotion. This report is shown below.

Orders Placed December 2007				
OrderNo	OrderDate	OrderTotal	5 % Discount	Total After Discount
2030	04/12/2007	£103.00	£5.15	£97.85
9302	05/12/2007	£12.00	£0.60	£11.40
5482	20/12/2007	£42.00	£2.10	£39.90
3246	21/12/2007	£148.00	£7.40	£140.60
5435	21/12/2007	£54.00	£2.70	£51.30
6212	21/12/2007	£116.00	£5.80	£110.20
6867	21/12/2007	£17.00	£0.85	£16.15
4734	22/12/2007	£32.00	£1.60	£30.40
4708	24/12/2007	£10.00	£0.50	£9.50
<b>Totals For Month</b>		<b>£534.00</b>	<b>£26.70</b>	<b>£507.30</b>
<b>Number of orders placed</b>				<b>9</b>

The management of GoGoGadgets then decided to try and boost sales in the quiet period after Christmas by offering a 20% discount to the total order price of any order placed in January 2008.

Task	Evidence Required
<p><b>4</b> Head Office want to analyse how effective their January promotion has been and have asked you to prepare a report similar to the one shown above. This report must show:</p> <ul style="list-style-type: none"> <li>• all orders placed in January 2008 showing the order date and order total rather than individual items on the order</li> <li>• the value of each order's 20% discount</li> <li>• the value of each order after discount</li> <li>• a summary field showing the overall monthly total before discount</li> <li>• a summary field showing the overall total discount for the month</li> <li>• a summary field showing the overall monthly total after discount</li> <li>• the number of orders placed in January 2008</li> </ul> <p>The report should be sorted by order date as shown. Where two or more orders are placed on the same day, they should be sorted by OrderNo in ascending order.</p>	<p>Printout of form/layout</p>

A customer satisfaction survey has revealed that customers would like to be able to browse catalogue pages organised by category.

**Category Selector Form (Fig a):**

Buttons: Boys Toys, Girls Gizmos, Office Distractions, Personal Grooming, Computer Accessories

**Item Form (Fig b):**

ItemID	Description	Category	Price
3323	Electronic Parking Aid	Girls Gizmos	£32.00
4046	Phone Neck Cradle	Girls Gizmos	£6.00
1157	Travel Pillow & Blindfold	Girls Gizmos	£3.00
2843	Nail Art Set	Girls Gizmos	£12.00
4132	Stick-on Jewels	Girls Gizmos	£4.00
6292	Hair Bare Tweezers	Girls Gizmos	£19.00
4197	Illuminating map reader	Girls Gizmos	£3.00
*0000			£0.00

Return to Category Selector

Record: 1 of 7 (Filtered)


Fig (a): Category Selector Form

Fig (b): Single Category Form (Girls Gizmos)

Task		Evidence Required
5	Use the database to perform the following tasks.	
	<p>(a) Create a Category Selector form similar to the one shown in Fig (a) above. Choose any of the five categories and create a navigational link to a separate form that shows only items from the chosen category (eg Fig (b)).</p> <p>(b) Amend the single category item form to include a link back to the Category Selection form.</p> <p><b>Each navigational link should close the current view/form and open the selected form.</b></p>	<p>Screen shots of forms/layouts</p> <p>Printout of macros/scripts used to control navigational features</p>



The customer care department of GoGoGadgets often send newsletters to customers with details of special offers or promotions as demonstrated below.

	<b>GogoGadgets.com</b> <b>Luke Muirhead of Glasgow</b> <b>Have we got news for you!!</b>	<b>December 2007</b>
		<b>Christmas Special</b>

**Luke—Save £££s this January!!! 20% off EVERY order!!!**

**D**on't let the post-Christmas blues get you down!! This January, we are delighted to announce our biggest ever special offer—20% of EVERY order! That's right, you've read it correctly. Any order placed in January automatically qualifies you for a MASSIVE 20% discount!

Forgotten to buy some Christmas presents for some loved ones? Got friends unexpectedly visiting from afar and have no gifts for them? We have

the answer! With our 5 distinct and unique categories, Boys Toys, Girls Gizmos, Office Distractions, Personal Grooming and Computer Accessories, you're sure to find something to suit!

**20% off**

Or perhaps you were waiting for that special gift at Christmas that didn't arrive?

Why not treat yourself to that pointless, useless item you've always wanted.

And rest assured that here at GogoGadgets we will deal with your January order in the same professional and efficient way we always do.

As an additional indication of our commitment to top quality goods and service, we will aim to make sure that any order placed in January will be dispatched, direct to your door or place of choice, within 24 hours of the order being placed.

So why delay? Take advantage of this first ever 20% extravaganza today!!


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**Featured Products for this month**

**W**e have selected some of our old favourites and some new additions to our catalogue. We hope you'll enjoy reviewing these products as much as we did!


Like our newest remote control helicopter—lightweight and easy to control anywhere!



Or what about our stylish T-Equaliser—amaze your friends with a T-Shirt that moves and animates in response to sound!!



Ever thought about converting all those old vinyl LPs into mp3s—easy with this plug-in USB turntable!



**Special points of interest:**

- Lookout for forthcoming Easter promotion
- New products to be added throughout the year
- On-line competitions coming for our loyal customers

You have been asked to create a newsletter for GoGoGadgets to send to their existing customers. **Each newsletter has to be personalised for each customer by merging the first name, surname and address 3 attributes from the Customer table.**

Task	Evidence Required
<p><b>6</b> (a) The newsletter could be produced using either word processing or desk top publishing software. Select the most appropriate type of software for creating the newsletter and complete the proforma, giving reasons for your choice by comparing;</p> <ul style="list-style-type: none"> <li>• the functionality of the software, and</li> <li>• the usability of the software</li> </ul> <p>You should compare at least <b>two</b> features for each criteria.</p>	<p>Task 6 (a) proforma (Appendix 3)</p>
<p>(b) The newsletter should include the two articles described below.</p> <p><b>Article 1</b> GoGoGadgets is going to run an Easter promotion offering special discounts, Buy One Get One Free deals etc. The article should feature at least <b>two</b> products from the Item table and include a graphic of each featured item. Body text should wrap around the graphic.</p> <p><b>Article 2</b> GoGoGadgets want to highlight the advantages that their e-commerce operation brings to customers. The article should cover at least <b>three</b> relevant issues such as cost savings that can be passed on to customers, efficiency, accuracy and speed of placing and dispatching orders, flexibility of when and where orders can be placed.</p> <p>In the creation of your publication you should:</p> <ul style="list-style-type: none"> <li>• personalise the newsletter by merging with the Customer table from the database (first name, surname and address3)</li> <li>• include the two articles detailed above</li> <li>• use a consistent house style ensuring each article has a headline and uses a sans serif font</li> <li>• use 14 or 16 point text with a two line drop capital for the first paragraph in each article</li> <li>• use a 12 point sans serif font for the main text</li> <li>• ensure text wraps around any graphics and flows between columns</li> <li>• ensure that text and graphics fill the space available, and there is no unnecessary white space</li> </ul>	<p>2 printouts</p> <p>one printout showing newsletter with field markers</p> <p>one printout showing merged newsletter for one customer</p>

Business analysts at GoGoGadgets have gathered information regarding its business operations since the company was formed in 2002.

*“At the start of 2002, GogoGadgets operated with 35 high street branches as well as their on-line operation. In 2002, their fixed costs were £700,000 whilst revenue for that first year of operation was £763,000. The next year, by closing 10 branches and switching those operations to the on-line facility, costs decreased by 15% to £595,000 whilst in the same period, revenue rose by 8% to £824,040. 2004 saw the closure of a further 5 branches, reducing costs by a further £95,000 to £500,000. 2004 also saw revenue rise to £900,000. GogoGadgets closed 12 branches in 2005, with costs now running at £250,000 but revenue actually dropped to £760,000. A decision was made in 2006 to close all high street branches except the store at Head Office with the result that costs levelled at £90,250 with revenue for that year of £795,000. With the one remaining branch at Head Office and all operations now on-line, GogoGadgets’ costs for 2007 were £114,000 with a total revenue of £865,000.”*

It has been suggested that the information in its current form is not very well presented.

Head office wants you to prepare a report that includes this information in a more concise form. The report must include information about the number of branches, costs, revenue and profit for the 6 year period from 2002–2007.

Task		Evidence Required
7	(a) Using appropriate software, present a summary of the information provided by the business analysts in a table. The report must include information about the number of branches, costs, revenue and profit for the 6 year period from 2002–2007.	Printout of report

In addition, Head Office wants a summary of the effectiveness of the January promotion. The sales department gathered data from orders placed in January 2007, where no special discounts applied. A total of 6 orders were placed generating revenue of £496. Using this data and your answer to Task 4, prepare a table that demonstrates how effective the January 2008 promotion has been.

Task		Evidence Required
7	(b) In the same document/report, provide a table summarising the information provided following the January sales promotion. The table should show, for both 2007 and 2008, the total number of orders placed and the total revenue. In addition, the table should include the total discount for 2008 and the net revenue for 2008.  Following this table should be a statement which highlights the key differences between the 2 years and a suggestion on how the promotion should be altered for January 2009.	Printout of report

The report should be based around the template shown below.

<b>Gogo Gadgets Summary Report</b> <b>Business operations since 2002</b>				
<b>Financial Summary information 2002-2007</b>				
<b>January Promotions</b>				
		2007	2008	
<b>Concluding Statement</b>				

## **Section 3**

## **Marking Grid**

## Marking Grid

Name \_\_\_\_\_

Date \_\_\_\_\_

### Part I – Relational Database Systems

Task	Topic	Possible Marks	Marks Gained	Evidence	Comment
1.	A	1,0		Proforma	
	B	1,0			
	C	1,0			
	D	1,0			
	E	1,0			
	F	1,0			
2.	Edit Customer, Item, Order and OrderLine tables	4,3,2,1,0		Hardcopy of Database solution files (eg Documenter in Access)	
	Links between tables	2,1,0		Screenshot of relationships	
3.	Computed & Summary fields	3,2,1,0		Hardcopy of report	
	Report layout	2,1,0			
4.	Order details	3,2,1,0		Hardcopy of report	
	Summary fields	3,2,1,0			
	Report layout	2,1,0			
5.	Forms created	2,1,0		Screenshots of forms	
	Navigation features	3,2,1,0		Printout of macros/scripts used to control navigation	

## Part II – Using Information

Task	Topic	Possible Marks	Marks Gained	Evidence	Comment
6.(a)	Software functionality	2,1,0		Task 6 (a) Proforma	
	Software usability	2,1,0			
6.(b)	Personalised newsletter	2,1,0		Printouts showing field markers Printout showing sample customer	
	Consistent house style	4,3,2,1,0		Newsletter	
	Newsletter layout	3,2,1,0			
	Article 1	4,3,2,1,0			
	Article 2	4,3,2,1,0			
7.(a)	Table/chart	3,2,1,0		Report	
7.(b)	Table	3,2,1,0			
	Concluding Statement	3,2,1,0			

	Possible Marks	Actual Marks
Overall Total	60	

## Appendix 1

### Task 1 Proforma

<b>Name</b>	
<b>Data Dictionary Entry</b>	
<b>A</b>	
<b>B</b>	
<b>C</b>	
<b>D</b>	
<b>E</b>	
<b>F</b>	



## Appendix 2

### Completed Data Dictionary

Only to be issued after completion and submission of Task 1

Entity	Attribute	PK/ FK	Data Type/Size	Unique	Required	Validation	Format
Customer	CustomerID	PK	Number	Y	Y	>=0001 and <=9999	0000
	Forename		Text (10)	N	Y		
	Surname		Text (15)	N	Y		
	Address1		Text (20)	N	Y		
	Address2		Text (20)	N	N		
	Address3		Text (20)	N	Y		
	Postcode		Text (8)	N	Y		
	CustomerEmail		Text (25)	Y	Y		
Item	ItemID	PK	Number	Y	Y		0000
	Description		Text (50)	N	Y		
	Category		Text (20)	N	Y	Restricted Choice (Boys Toys, Girls Gizmos, Personal Grooming, Office Distractions, Computer Accessories)	
	Price		Number	N	Y	<50	Currency
Order	OrderNo	PK	Number	Y	Y		0000
	CustomerID	FK	Number	N	Y	Lookup from Customer	0000
	OrderDate		Date	N	Y		dd/mm/yyyy
	OrderDispatched		Date	N	N		dd/mm/yyyy
OrderLine	OrderNo	PK/FK	Number	N	Y	Lookup from Order	0000
	ItemID	PK/FK	Number	N	Y	Lookup from Item	0000
	Quantity		Number	N	Y		

## Appendix 3

### Task 6 (a) Proforma

<b>Name</b>	
<b>Software Evaluation Form</b>	
<b>Functionality</b>	
<b>Usability</b>	

## **Appendix 4**

### **Detailed Marking Instructions**

**Strictly Confidential**

## Detailed Marking Instructions – Do not issue to candidates.

<b>1</b>	A	1,0	Y (Customer e-mail required)
	B	1,0	Y (ItemID unique in Item table)
	C	1,0	Restricted Choice (Boys Toys, Girls Gizmos, Personal Grooming, Office Distractions, Computer Accessories)
	D	1,0	Lookup from Customer entity
	E	1,0	N (OrderNo not unique in OrderLine)
	F	1,0	Number
<b>2</b>	Edit Customer, Item, Order and OrderLine tables	4,3,2,1,0	All 4 tables <b>completely</b> correct (no errors) against competed data dictionary provided – 4 marks 3 tables completely correct – 3 marks 2 tables completely correct – 2 marks 1 table completely correct – 1 mark <b>It is only acceptable to use a lookup from a value list for Restricted Choice validation in Access if there is an accompanying Validation Rule or the “Limit to List” option has been set to True.</b>
	Links between tables	2,1,0	3 correct 1 to many relationships – 2 marks 2 correct – 1 mark otherwise – 0 marks
<b>3</b>	Computed and summary fields	1,0	Calculated field for each order line (Quantity x Price)
		1,0	Summary field (SUM) for each order
		1,0	Summary field (SUM) for all orders
	Report layout	1,0	Data sorted by OrderDate Descending
		1,0	Similar layout to sample, all text visible
<b>4</b>	Order details	1,0	Order totals correct
		1,0	Discount totals correct
		1,0	Totals after discount correct
	Summary fields	2,1,0	Summary totals correct
		1,0	Count function correct
	Report Layout	2,1,0	Data sorted OrderDate Ascending, OrderNo Ascending
<b>5</b>	Forms created	1,0	Category selection form
		1,0	Single item category form
	Navigation features	3,2,1,0	Macro/scripts to <b>close</b> Category Select form <b>and open</b> Item form <b>and</b> macro/script to <b>close</b> Item form <b>and open</b> Category select form – deduct 1 mark each omission <b>The macro/script evidence MUST show both the close and open operation applied to each navigational feature.</b>

<b>6(a)</b>	Software functionality	2,1,0	Comparison of 2 features of <b>each</b> type of software to produce newsletter – 2 marks Comparison of only 1 feature of each type – 1 mark
	Software usability	2,1,0	Comparison of 2 features that contribute to the usability of each type of software – 2 marks Comparison of only 1 feature that contributes to the usability of each type of software – 1 mark
<b>6(b)</b>	Personalised newsletter	1,0	Printout showing field markers
		1,0	Printout showing sample customer
	Consistent House Style	1,0	Sans serif font consistently used throughout
		1,0	Headline on each article
		1,0	1 <sup>st</sup> paragraphs 14 or 16pt size; and drop cap
		1,0	Main body text 12pt size; sans serif
	Newsletter layout	1,0	Text wrap round graphics
		1,0	Use columns (watch uneven use of text boxes)
		1,0	General layout/white space
	Article 1	4,3,2,1,0	Include 2 products from items table – 1 mark Include 2 suitable graphics – 1 mark Graphics wrapped within the text – 1 mark Set within the promotion scenario – 1 mark
	Article 2	4,3,2,1,0	Full explanations of 3 main points (cost savings to customers, 24/7 operation, efficiency, speed, accuracy etc) – 4 marks Less detailed explanations OR fewer issues discussed – 2/3 marks Only brief explanation provided – 1 mark
<b>7(a)</b>	Table	1,0	5 data items/columns (Year, Branches, Costs, Revenue, Profit)
		1,0	Profit correctly calculated
		1,0	6 years data included
<b>7(b)</b>	Table	2,1,0	All required data (deduct 1 mark any omission)
		1,0	Table suitably labelled.
	Concluding statement	1,0	More orders with discount promotion
		1,0	Less total revenue after discount (must compare Net revenue for Jan 08 with Total revenue for Jan 07)
		1,0	Repeat offer but reduce discount from 20%

## **Appendix 5**

### **Screenshots showing solutions to Tasks 3, 4 and 7**

### Task 3

Customer Invoice			CustomerID 7853		
			Luke Muirhead		
Order No	8760	Order Date	23/09/2008		
ItemID	Description	Category	Price	Quantity	Total Price
3277	Night Vision Glasses	Boys Toys	£14.00	3	£42.00
7072	Indoor Curling Set	Office Distractions	£27.00	2	£54.00
4908	Bunion Corrector	Personal Grooming	£11.00	4	£44.00
Order Total					£140.00
Order No	6087	Order Date	25/01/2008		
ItemID	Description	Category	Price	Quantity	Total Price
4046	Phone Neck Cradle	Girls Gizmos	£6.00	3	£18.00
3188	Mini Shaver	Boys Toys	£7.00	1	£7.00
0868	Screen Wipes	Computer Accessories	£2.00	2	£4.00
Order Total					£29.00
Order No	6867	Order Date	21/12/2007		
ItemID	Description	Category	Price	Quantity	Total Price
5472	USB Foot Warmer	Computer Accessories	£13.00	1	£13.00
0868	Screen Wipes	Computer Accessories	£2.00	2	£4.00
Order Total					£17.00
Order No	2080	Order Date	11/06/2007		
ItemID	Description	Category	Price	Quantity	Total Price
6292	Hair Bare Tweezers	Girls Gizmos	£19.00	2	£38.00
8692	Newton's Cradle	Office Distractions	£8.00	4	£32.00
Order Total					£70.00
Order No	7914	Order Date	26/05/2007		
ItemID	Description	Category	Price	Quantity	Total Price
6669	50 Arcade games console	Boys Toys	£13.00	1	£13.00
Order Total					£13.00
Invoice Total					£269.00

## Task 4

### Orders Placed January 2008

OrderNo	OrderDate	OrderTotal	20 % Discount	Total After Discount
2436	01/01/2008	£53.00	£10.60	£42.40
7402	05/01/2008	£36.00	£7.20	£28.80
9894	05/01/2008	£153.00	£30.60	£122.40
3354	12/01/2008	£88.00	£17.60	£70.40
9775	21/01/2008	£14.00	£2.80	£11.20
6087	25/01/2008	£29.00	£5.80	£23.20
5481	26/01/2008	£100.00	£20.00	£80.00
7265	26/01/2008	£12.00	£2.40	£9.60
0313	30/01/2008	£53.00	£10.60	£42.40
0930	30/01/2008	£12.00	£2.40	£9.60
<b>Totals For Month</b>		<b>£550.00</b>	<b>£110.00</b>	<b>£440.00</b>
<b>Number of orders placed</b>				<b>10</b>



**Task 7 (a) – Table 1**

<b>Year</b>	<b>Branches</b>	<b>Costs (£)</b>	<b>Revenue (£)</b>	<b>Profit (£)</b>
2002	35	700000	763000	63000
2003	25	595000	824040	229040
2004	20	500000	900000	400000
2005	8	250000	760000	510000
2006	1	90250	795000	704750
2007	1	114000	865000	751000

**Task 7 (b) – Table 1****January Promotions**

	<b>2007</b>	<b>2008</b>
<b>Orders Placed</b>	6	10
<b>Total Revenue</b>	£496.00	£550.00
<b>Total Discount</b>	N/A	£110.00
<b>Net Revenue</b>	N/A	£440.00