

CAMBRIDGE INTERNATIONAL EXAMINATIONS  
Cambridge Career Award in Information and Communications Technology  
Standard Level

**DATA ANALYSIS**

**5192/A**

Optional Module: Practical Assessment

2003

**1 hour**

No Additional Materials are required.

**READ THESE INSTRUCTIONS FIRST**

Make sure that your name, Centre number and candidate number are shown on each printout that you are asked to produce.

Carry out **every** instruction in each task.

Tasks are numbered on the left hand side of the page, so that you can see what to do, step by step. On the right hand side of the page for each task you will find a box which you can tick (✓) when you have completed the task; this checklist will help you to track your progress through the assessment.

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At the end of the assessment put **all** your printouts into the Assessment Record Folder.

This document consists of **3** printed pages.



You work for a food wholesale company called Food Chain. You have been asked by the sales department to calculate the value of current food orders.

All currency values should be in dollars with the \$ sign visible.

- 1 Create a data model which looks like this:



1.1.1

Information Table					
Code	1	2	3	4	5
Disc	5%	10%	15%	20%	25%

Company	Order	Code	Discount	Value	Concession	Total

The cells in these columns will represent:

<i>Company</i>	Name of company
<i>Order</i>	The value of each order before discount
<i>Code</i>	A code will be given to each customer to calculate the discount to be given
<i>Discount</i>	Looks up the discount percentage using the code
<i>Value</i>	Calculation of the discount
<i>Concession</i>	Concession is an additional discount given if the order is greater than 1500
<i>Total</i>	Total of order after value and concession is taken away.

- 2 In the *Information Table* name the range of cells which hold the data for *Code* and *Disc*. Give this range the name **Info**



1.1.4

This range will be used to calculate the *Discount*.

- 3 In the main table in the cell under *Discount*, enter a formula using Lookup. This formula looks up the *Disc* in the *Information Table* using the *Code*.



1.1.4

- 4 In the main table in the cell under *Value*, enter a formula to multiply the *Discount* by *Order*.



1.1.3

- 5 In the *Concession* column enter a formula to perform the following calculations:



1.1.4

If the *Order* is greater than 1500, calculate *Order* multiplied by 5%.  
If the *Order* is less than 1500, the result will be zero.

- 6 In the cell under *Total*, enter a formula which subtracts the *Value* and *Concession* from the *Order*  
e.g.  $Order - (Value + Concession)$   1.1.3
- 7 Format the cells in the *Discount* column to a percentage format.  3.1.1
- 8 Format the cells in the *Order*, *Value*, *Concession* and *Total* columns to display the \$ sign (dollar) with 2 decimal places.  3.1.1
- 9 Copy down all formulae entered in steps 3 - 6 so that 9 rows of data can be entered.  1.1.1
- 10 Set your page orientation to landscape.  3.3.1
- 11 Save the data model and print a copy of the sheet showing the formulae used. Make sure that the contents of all cells are visible and that the printout fits on a single printed page.  3.2.1  
4.1.1
- 12 Enter the following data into the model to test that it works correctly:  1.1.2  
1.2.1

Company	Order	Code	Discount	Value	Concession	Total
Evergreens	1735.79	1				
Patel Inds	1589.65	5				
Price Mart	2478.36	5				
Sam's Cafe	89.47	5				
Toy Store	4832.96	3				
Wilson's Store	7892.00	1				
Sam's Cafe	125.36	1				
Rowley Shop	1273.14	4				
Watkins Sports	4587.00	3				

- 13 Save this data and print a copy showing the values. Make sure that the contents of all cells are visible and that the printout fits on a single printed page.  3.2.1  
4.1.1
- 14 Produce a printout showing only the rows where the *Total* > 1500 and the *Code* >= 3.  2.1.1  
4.1.1
- 15 Produce a printout showing only the rows where the *Code* = 5 and the *Concession* > 0.  2.1.1  
4.1.1

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You work for an international company called Gem Export, which sells jewels and precious stones.

You have been asked by the marketing department to calculate the cost of the gems which are going to be advertised on the internet.

All currency values should be in dollars with the \$ sign visible.

1 Create a data model which looks like this:



1.1.1

### Cutting options

<b>Gem cut</b>	<b>cabochons</b>	<b>faceted</b>
<b>Cutting cost</b>	<b>5</b>	<b>10</b>

Name	Precious	Gem cut	Carat	Carat Value	Cut Cost	Insurance	Total Value

The cells in these columns will represent:

<i>Name</i>	Name of the gems
<i>Precious</i>	The type of each gem
<i>Gem cut</i>	The cut of the gem face
<i>Carat</i>	The weight of each gem
<i>Carat Value</i>	The cost per carat
<i>Cut Cost</i>	The cost of cutting each gem
<i>Insurance</i>	Calculation of the insurance
<i>Total Value</i>	Calculation of the total cost of the gem

2 In the *Cutting options* table name the range of cells which hold the data for *Gem cut* and *Cutting cost*. Give this range the name **cut**



1.1.4

- 3 In the main table in the cell under *Cut Cost*, enter a formula using Lookup. This formula looks up the *Cutting Cost* in the *Cutting options* table using the *Gem cut* and divides this value by the *Carat*.  1.1.3  
1.1.4
- 4 In the cell under *Insurance* enter a formula to calculate the insurance cost.  1.1.3  
If the *Precious* data is *p*, calculate *Carat* x 2.50  
If the *Precious* data is not *p*, calculate *Carat* x 1.50
- 5 In the cell under *Total Value*, enter a formula which multiplies the *Carat* by the *Carat Value* and adds the *Cut Cost* and *Insurance*.  1.1.3
- 6 Format the cells in the *Carat Value*, *Cut Cost*, *Insurance* and *Total Value* columns to display the \$ sign with 2 decimal places.  3.1.1
- 7 Copy down all formulae entered in stages 3 – 5 so that at least 12 rows of data can be entered.  1.1.1
- 8 Set your page orientation to landscape.  3.3.1
- 9 Save the data model and print a copy of the sheet showing the formulae used. Make sure that the contents of all cells are visible and that the printout fits on a single printed page.  3.2.1  
4.1.1
- 10 Enter the following data into the model to test that it works correctly.  1.1.2  
1.2.1

Name	Precious	Gem cut	Carat	Carat Value	Cut Cost	Insurance	Total Value
Amethyst	sp	faceted	17.9	5.00			
Amethyst	sp	cabochons	25.87	6.00			
Aquamarine	sp	faceted	2.23	31.50			
Citrine	sp	faceted	18.88	12.00			
Diamond	p	faceted	0.29	862.00			
Emerald	p	cabochons	0.42	357.00			
Garnet	sp	cabochons	6.34	26.00			
Peridot	sp	faceted	3.52	30.00			
Ruby	p	faceted	0.7	286.00			
Sapphire	p	faceted	1.51	100.00			
Tanzanite	sp	cabochons	1.12	151.00			
Topaz	sp	faceted	15.8	11.00			

- ✓
- 11 Save this data and print a copy showing the values. Make sure that the contents of all cells are visible and that the printout fits on a single printed page.  3.2.1  
4.1.1
- 12 Produce a printout showing only the rows where the *Total Value* is greater than **150** and *Precious* is *sp*  2.1.1  
4.1.1
- 13 Produce a printout showing only the rows where the *Gem cut* equals *faceted* and *Insurance* is less than **5**  2.1.1  
4.1.1

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You work for an international car hire company called Argon Hire. You have been asked by the sales department to calculate the hire charges for vehicles which are to be advertised on the internet.

All currency values should be in dollars with the \$ sign visible.

1 Create a data model which looks like this:



1.1.1

**Insurance Table**

Category	Ins
A	0.1
B	0.15
C	0.2
D	0.25
E	0.3
F	0.35

Category	Car Type	Doors	Rate	Ins Rate	Insurance	Total	Deposit

The cells in these columns will represent:

<i>Category</i>	Car types are category A - F
<i>Car Type</i>	The type of each car
<i>Doors</i>	The number of doors on the car
<i>Rate</i>	The daily rate, based on the car type
<i>Ins Rate</i>	Looks up the insurance rate using the category
<i>Insurance</i>	Calculation of the insurance
<i>Total</i>	Calculation of the total cost of car hire
<i>Deposit</i>	Does the car require a security deposit?

- 2 In the *Insurance table* name the range of cells which hold the data for *Category* and *Ins*. Give this range the name **ins**  1.1.4
- 3 In the main table in the cell under *Ins Rate*, enter a formula using Lookup. This formula looks up the *Ins* in the *Insurance Table* using the *Category*.  1.1.4
- 4 In the main table in the cell under *Insurance*, enter a formula to multiply the *Rate* by *Ins Rate*.  1.1.3
- 5 In the cell under *Total*, enter a formula which adds the *Rate* to the *Insurance*  1.1.3
- 6 In the *Deposit* column enter a formula to show whether a deposit is required.  1.1.4  
If the *Rate* is greater than 60, display the word **“Yes”**  
If the *Rate* is not greater than 60, display the word **“No”**
- 7 Format the cells in the *Ins Rate* column to a percentage format.  3.1.1
- 8 Format the cells in the *Rate*, *Insurance* and *Total* columns to display the \$ sign (dollar) with 2 decimal places.  3.1.1
- 9 Copy down all formulae entered in stages 3 - 6 so that at least 8 rows of data can be entered.  1.1.1
- 10 Set your page orientation to landscape.  3.3.1
- 11 Save the data model and print a copy of the sheet showing the formulae used. Make sure that the contents of all cells are visible and that the printout fits on a single printed page.  3.2.1  
4.1.1
- 12 Enter the following data into the model to test that it works correctly:  1.1.2  
1.2.1

Category	Car Type	Doors	Rate	Ins Rate	Insurance	Total	Deposit
A	Economy	2	38				
B	Compact	2	44				
B	Compact	4	48				
C	Intermediate	2	58				
C	Intermediate	4	60				
D	Jeep wrangler	2	78				
E	Premium	4	94				
F	Luxury	4	95				

- |    |   |                               |                |
|----|---|-------------------------------|----------------|
| 13 | Save this data and print a copy showing the values. Make sure that the contents of all cells are visible and that the printout fits on a single printed page. | ✓<br><input type="checkbox"/> | 3.2.1<br>4.1.1 |
| 14 | Produce a printout showing only the rows where the <i>Total</i> is greater than 60 but less than 100 and <i>Doors</i> are 2                                   | <input type="checkbox"/>      | 2.1.1<br>4.1.1 |
| 15 | Produce a printout showing only the rows where the <i>Total</i> is greater than 50 and the <i>Category</i> is <i>B</i> or <i>C</i>                            | <input type="checkbox"/>      | 2.1.1<br>4.1.1 |