

Candidate Name	Centre Number	Candidate Number
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OXFORD CAMBRIDGE AND RSA EXAMINATIONS
General Certificate of Secondary Education

INFORMATION AND COMMUNICATION TECHNOLOGY

2357/02

PAPER 1 (HIGHER TIER)

Monday **23 MAY 2005** Afternoon 1 hour 15 minutes

Candidates answer on the question paper.
 No additional materials are required.

TIME 1 hour 15 minutes

INSTRUCTIONS TO CANDIDATES

Write your name, Centre number and candidate number in the spaces at the top of this page.
 Answer **all** the questions.
 Write your answers, in blue or black ink, in the spaces on the question paper.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [] at the end of each question or part question.
 No marks will be awarded for using brand names of software packages or hardware.
 The total number of marks for this paper is **60**.

FOR EXAMINER'S USE	
1	
2	
3	
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6	
7	
8	
9	
TOTAL	

This question paper consists of 11 printed pages and 1 blank page.

Answer **all** questions.

- 1 A car sales showroom keeps a database of its stock. The table below shows part of the database.

Car stock code	Colour	Type of car	Year of manufacture	Price	Sold
AC7E4	Blue	Estate	1998	£4,000.00	Yes
AC7E5	Red	Saloon	1997	£3,599.00	No
AC7E6	Blue	Hatchback	1999	£6,000.00	Yes
AC7E7	Green	Estate	2000	£8,000.00	No
AC7E8	Blue	Saloon	2001	£9,500.00	Yes
AC7E9	Silver	Hatchback	1996	£4,500.00	Yes
AE7E10	Grey	Convertible	2004	£14,000.00	Yes

- (a) When the database was designed, each field was given a field type.
Tick (✓) **one** box in each row to show the most suitable field type for each of the fields.

Field name	Field type chosen		
	Boolean	Alphanumeric	Numeric
Price			
Sold			
Car stock code			
Type of car			

[4]

- (b) Which field would be most suitable as a key field?

.....[1]

- (c) The data in the table could be sorted into ascending order of Year of manufacture.
What is the price of the car that would appear at the top of the table?

.....[1]

- (d) The salesperson searches the data in the table for cars using this query:

Colour = Blue OR Type of car = Saloon

How many cars does he find?

.....[1]

2 A journalist has a desktop computer and a palmtop computer.

(a) Give **three** advantages of the palmtop.

Advantage 1

.....

Advantage 2

.....

Advantage 3

.....[3]

(b) In the office she types reports and presents them as multimedia presentations.
Give **two** features of the desktop computer that make it more suitable than the palmtop computer for these tasks.

Feature 1

Feature 2[2]

3 This is a spreadsheet of the money that Kathryn has spent in one week.

	A	B	C	D
1			<u>Cost</u>	<u>Totals</u>
2	<u>Travel</u>			
3	Bus fares to school		7.5	
4	Bus fares to home		7.5	
5	<i>Total bus fares</i>			15
6				
7				
8	<u>Food and drink</u>			
9	Drinks		10.80	
10	Chocolate bars		4.5	
11	Sandwiches		3.75	
12	Packets of crisps		2.5	
13	<i>Total food and drink costs</i>			21.55
14				
15	<u>Total Spent</u>			
16				

(a) Describe how Kathryn would make a chart on her computer of the amounts spent on food and drink.

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.....[2]

(b) The amounts in columns C and D should be formatted. Describe how this could be done.

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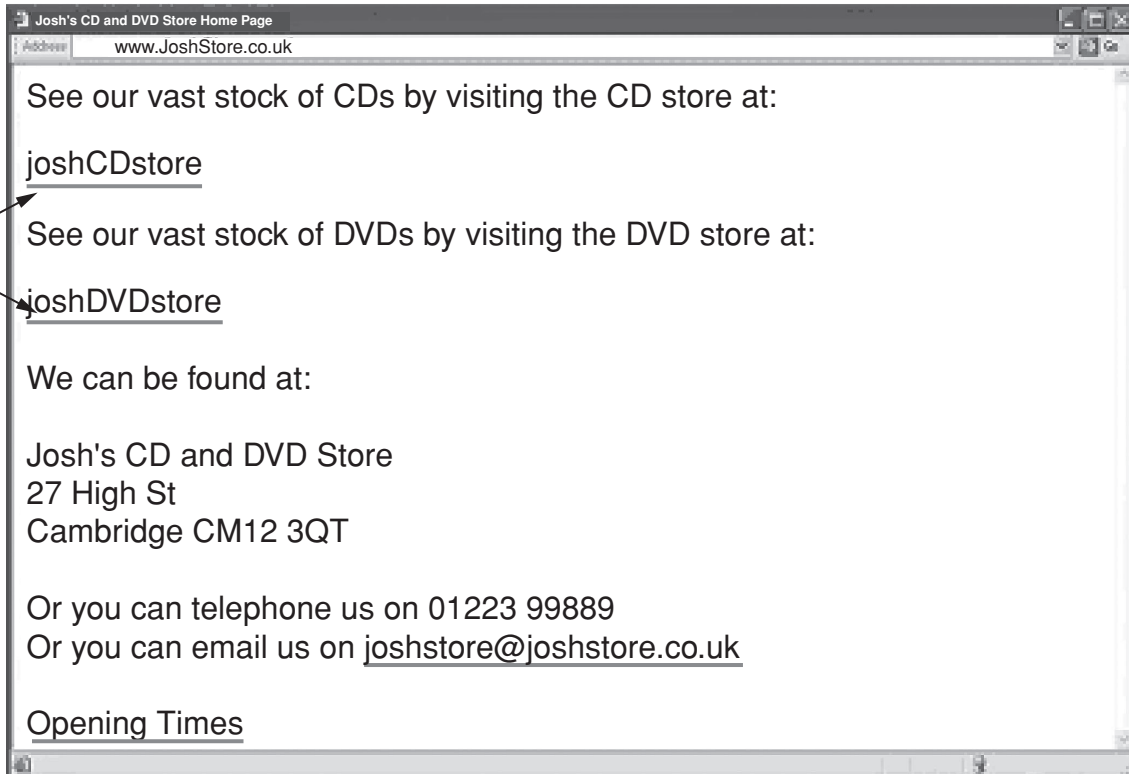
.....[2]

(c) Write a suitable formula to be put into cell D15 to calculate the total amount spent.

.....[2]

- 4 A music store has set up a website to advertise its store. The site has many pages showing its CDs and DVDs, its opening times and its contact details.

Here is the store's home page.



- (a) Why are the words at **A** underlined?

.....[1]

- (b) The homepage is very boring.

Explain how the page could be made more interesting to visitors.

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.....[4]

- (c) Give **two** suitable features that could be added to make it easier for visitors to navigate around the site.

Feature 1

.....

Feature 2

.....[2]

- (d) Customers are asking for the store to start selling CDs and DVDs over the Internet but the store manager has some worries about this.

Explain what the manager may be worried about.

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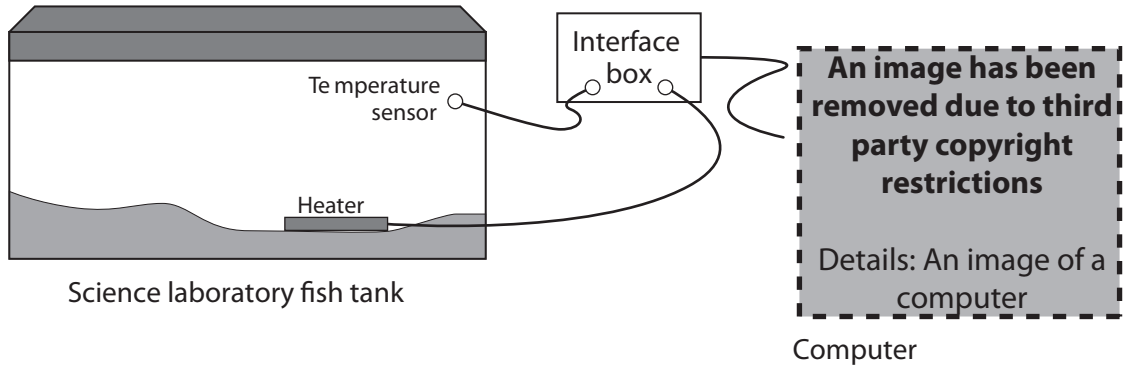
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.....[4]

- 5 The temperature of the water in a fish tank is controlled using a computer connected through an interface box to sensors and a heater.



- (a) The analogue data collected from the temperature sensor is converted into digital data for use by the computer.
Explain the differences between analogue and digital data with examples of their use.

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.....[4]

- (b) The temperature of the water in the fish tank must be kept between 18°C and 24°C. The computer is used to turn the heater on or off to manage the water temperature.

These are some of the instructions that can be used to control the heater.

Program instruction	What the instruction means or does
>	Greater than/more than/over
<	Less than/below
=	Equal to/same as
HEATER ON	Turns the heater on
HEATER OFF	Turns the heater off
IF...THEN	Checks a condition
READ	Input data
END	Ends the sequence
START	Starts the sequence

Use the program instructions to complete this program sequence for controlling the heater.

START

READ temperature

IF temperature 18

THEN

IF temperature 24

THEN

END

[4]

8 Computer programs should always be supplied with user documentation.
Describe **three** items that should be included in this user documentation.

Item 1

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Item 2

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Item 3

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.....[6]

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