

**GENERAL CERTIFICATE OF SECONDARY EDUCATION
INFORMATION AND COMMUNICATION
TECHNOLOGY**

2357/02

Paper 1
(Higher Tier)

Candidates answer on the question paper

OCR Supplied Materials:

- None

Other Materials Required:

- None

**Thursday 8 January 2009
Afternoon**

Duration: 1 hour 15 minutes



Candidate Forename		Candidate Surname	
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Centre Number						Candidate Number				
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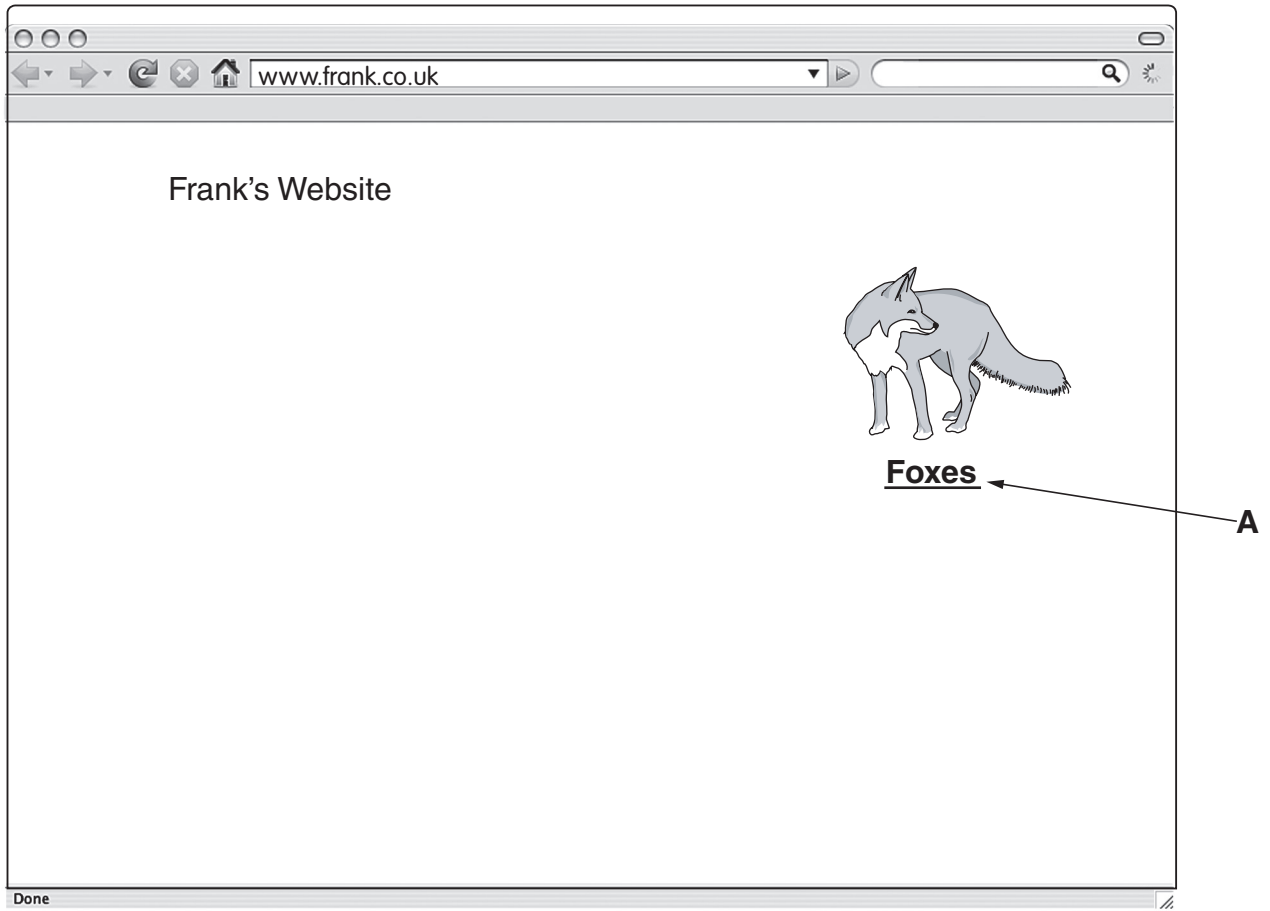
INSTRUCTIONS TO CANDIDATES

- Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer **all** the questions.
- Do **not** write in the bar codes.
- Write your answer to each question in the space provided.
- Additional answer space is available on the lined pages at the back of this booklet. Answers on these pages **must** be clearly numbered.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this paper is **60**.
- No marks will be awarded for using brand names of software packages or hardware.
- This document consists of **12** pages. Any blank pages are indicated.

1 The web page below is Frank's homepage.



The web page is not very attractive to visitors. Apart from using more text, describe how the page could be made more interesting.

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..... [4]

2 Tick **two** devices that use control software.

Device	(✓)
A door bell	
An automatic light in a fridge	
An automatic washing machine	
A DVD recorder	
A school weather station	

[2]

3 This is a database of the students in a small tutor group.

Student ID	Forename	Name	Gender	Tutor Group	Home Contact Number	No. of half days absent
1010	Mohammed	Nissar	M	10A1	077 567 898	12
1018	Yoko	Sato	F	10A1	077 896 543	6
1013	Trevor	Williams	M	10A1	021 000 234	5
1012	Michaela	Harrison	F	10A1	079 772 345	4
1011	Reuben	Macavoy	M	10A1	021 888 999	3
1015	Julie	Ford	F	10A1	012 341 110	2
1016	Tracey	Hamilton	F	10A1	077 678 907	2
1017	Gurpreet	Jalfe	F	10A1	012 188 655	1
1014	Chinzia	Lee	F	10A1	077 890 002	0

(a) A search for all the males having more than four absences is to be made.

(i) Complete the query below to do this:

Gender = MALE..... No. of absences..... 4

[2]

(ii) How many records will be found?

..... [1]

(b) If the database is sorted on ascending order of Name, how many absences does the student at the bottom of the list have?

..... [1]

(c) The telephone number field is set as 'text' data type.
Give **two** reasons why 'text' is the most suitable data type.

Reason 1

.....

Reason 2

..... [2]

(d) (i) What data type should be used for the 'Number of half days absent' field?
..... [2]

(ii) Give **one** reason for choosing this data type.
.....
..... [1]

(e) Why is 'Student ID' used as a key field?
..... [1]

(f) This database is protected by a password.
Why is it necessary to do this?
.....
..... [1]

(g) Give **two** ways how this database could be used in the school.
Way 1
.....
Way 2
..... [2]

4 Hardeep is looking through his work stored on his computer and accidentally deletes some important files. He has to redo all the work.
Describe how he could have avoided the need to redo all the work.
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..... [4]

5 A company has offices in this country and overseas.

(a) Some important documents must be distributed and it is decided to use email instead of normal post.

State **three** problems that this may cause and, for each problem, state how the problem may be solved.

Problem 1

Solution

Problem 2

Solution

Problem 3

Solution [6]

(b) Video conferencing is used by the company staff so that they can hear and see each other at a distance.

Give **two** advantages of using video conferencing compared to face-to-face meetings.

Advantage 1

Advantage 2 [2]

6 A stream runs past a factory.
Describe how information technology could be used to collect data and then to analyse the data to find out if the stream is being polluted.

(i) Collect the data

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..... [4]

(ii) Analyse the data

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..... [4]

- 7 Kathryn is researching her family history and has found two old photographs, one of her grandmother and one of her grandfather.

Kathryn has scanned the photographs onto her computer.

Describe how she could use photo-editing software to produce a new image containing both her grandparents.

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..... [4]

8 Workers in a car insurance office enter data from application forms into a database. Validation and verification are both used when inputting data to minimise errors. For each, state what it is and why it is necessary.

(i) Validation
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..... [3]

(ii) Verification
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..... [3]

9 'Students often use the internet as their only source of information when carrying out research.' Discuss the issues involved in relying on the internet as the only source of information.
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..... [6]

10 Geography lessons in schools are often more interesting if multimedia presentations are used. Describe how multimedia presentation software can be used to make geography more interesting.

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..... [5]

If you use these lined pages to complete the answer to any question, the question number **must** be clearly shown.

A series of horizontal dotted lines for writing, consisting of 20 rows.



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