

GCSE
INFORMATION AND
COMMUNICATION TECHNOLOGY

ICT B (Higher Tier)

THURSDAY 18 JANUARY 2007

Additional materials:
Candidates answer on the question paper
Flowchart stencil
Candidates pre-prepared materials

H 2380/02

Morning

Time: 1 hour 30 minutes



Candidate
Name

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Centre
Number

--	--	--	--	--

Candidate
Number

--	--	--	--

INSTRUCTIONS TO CANDIDATES

- Write your name, Centre number and Candidate number in the boxes above.
- Answer **all** the questions.
- Use blue or black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure you know what you have to do before starting your answer.
- Do **not** write in the bar code.
- Do **not** write outside the box bordering each page.
- **WRITE YOUR ANSWER TO EACH QUESTION IN THE SPACE PROVIDED. ANSWERS WRITTEN ELSEWHERE WILL NOT BE MARKED.**

INFORMATION FOR CANDIDATES

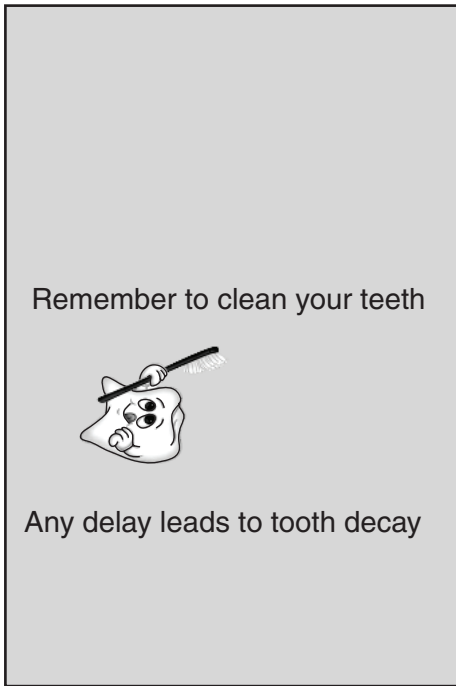
- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this paper is **80**.
- No marks will be awarded for using brand names of software packages or hardware.

FOR EXAMINER'S USE

1	
2	
3	
4	
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6	
7	
8	
9	
10	
11	
12	
13	
TOTAL	

This document consists of **14** printed pages, **2** blank pages and an Insert.

- 1 Wordsworth Dental Practice actively encourages young people to look after their teeth. Two versions of a poster are shown below. Poster 1 was changed using ICT to make poster 2.



Poster 1



Poster 2

Changes have been made to the poster using common software tools.

State **four** changes that have been made and describe how you would make each change.

Change 1

How

..... [2]

Change 2

How

..... [2]

Change 3

How

..... [2]

Change 4

How

..... [2]

2 State the type of software that would be most suitable for each of the following tasks.

(a) To organise appointments effectively.

..... [1]

(b) To send data quickly to other dentists.

..... [1]

(c) To draft and modify contracts of employment.

..... [1]

(d) To design and produce a folded printed leaflet.

..... [1]

(e) To edit digital pictures.

..... [1]

(f) To store patient details.

..... [1]

3 Wordsworth Dental Practice communicates with patients by the use of email and text messaging.

State **two** methods that could be used to communicate with patients who have no email or mobile phone.

Method 1

..... [1]

Method 2

..... [1]

4 Wordsworth Dental Practice uses a database. One of the dentists accidentally copies an older version of the database over the newest version.

(a) Explain **two** methods that could be used to reduce the effect of this human error and prevent the error happening again.

Method 1

.....

.....

.....

Method 2

.....

.....

..... [4]

(b) Each patient has to sign a paper-based contract before joining the surgery. The dentist scans these documents and stores them on a computer system.

Describe **two** methods that can be used to organise these documents so they can be found quickly.

Method 1

.....

.....

Method 2

.....

..... [4]

6

- 6 Staff can search for dental information on the dental practice database. It is not practical to browse through all the records using a scroll bar.

Complete the chart below by inserting the missing descriptions and operators.

Operator	Description
	Greater than
<=	
	Not equal to

[3]

7 A brief description of the appointment booking procedure for Wordsworth Dental Practice is described below:

- patient logs onto the online booking system
- patient checks the online system for dentist availability
- if the correct dentist is available the patient adds a new appointment to the dentist database
- an automatic email is sent to the patient confirming the appointment.

Draw a flowchart to show the various stages of booking an appointment.

[8]

- 8 Part of a spreadsheet, used to calculate the wages of staff at Wordsworth Dental Practice, is shown below.

	A	B	C	D	E	F	G
1	Employee name	Rate of pay, per hour	Hours worked this week	Total pay before Tax	Tax	Pay after deduction of Tax	Total pay for year
2	W. Chalmers	5.45	43	234.35	35.40	198.95	
3	D. Singh	6.75	34	229.50	37.80	191.70	
4	S. Bloomer	5.45	25	136.25	22.55	113.70	
5	P. Robinson	5.75	38	218.50	32.68	185.82	
6	R. Shah	6.25	30	187.50	34.00	153.50	

- (a) Write down the formula that would be put in cell D2.

..... [1]

- (b) State **three** cells that will change if the value in cell C5 is increased to 40.

.....
 [3]

- (c) State the additional information required by the spreadsheet to calculate column G.

..... [1]

9 The Wordsworth Dental Practice database contains thousands of records.

A section of the database is shown below:

Surname	First Name	Mobile Number	E-mail	Address	Postcode	Date of Birth	Reference
Smith	John		Jsmith@wordsworth.com	Not known		07/01/46	004a
Williams	Gill	07632 698522	WiliamsG@wordsworth.com	22 East View, Littletown	DD7 8QA	08/02/46	006a
Wu	Jack	07459 668123	WuJ@wordsworth.com	12 The Lane, Wordsworth	DE6 6DD	15/03/52	001a
Koski	Brad	07652 555486	KoskiB@wordsworth.com	15 High Street, Wordsworth	DE4 4FD	02/07/56	005a
Wu	Jack	07884 335478	No email	The Mill, Trumpton	FD5 6NB	16/08/65	002a
Smith	Sally	07996 451735	Ssmith@wordsworth.com	13 Hill View, Hampton	HH5 8UH	16/09/68	003a

(a) State the field that would be used as the key field.

..... [1]

(b) Explain why a key field is important.

.....

 [2]

10 Wordsworth Dental Practice uses spreadsheet software. Explain each of the following spreadsheet terms.

(a) A formula

.....
..... [2]

(b) A function

.....
..... [2]

(c) Explain what happens to the cell references in a formula, when you copy that formula to different cells or sheets. Refer to absolute and relative references in your answer.

.....
.....
.....
.....
.....
.....
.....
.....
.....
..... [6]

11 Wordsworth Dental Practice have asked you to redesign the structure of their website. The list below shows the pages currently available to patients.

- welcome page
- dental hygiene page
- dentist booking page
- download page
- dental products ordering page
- contact us page
- dental practice information page.

Draw a diagram to show the suggested structure of the website. You should add two extra pages of your own. Do not design the pages. You have been asked to show only the structure of the website.

Marks will be awarded for:

- a clear structure for the website
- inclusion of all the pages listed
- clarity of the links between pages
- addition of two further useful pages.

12

12 Files usually have file extensions after the name of the file. Complete the chart below to show the type of files indicated by the file extensions. The first one has been completed for you.

File name / extension	Type of file
.txt .dat .rtf	Text file
.wav .mid	
.jpg .gif .tif .bmp	
.mpg .mov .avi .flc	
.htm .html	
.pdf	

[5]

14
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PLEASE DO NOT WRITE ON THIS PAGE

15
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