

Candidate Name	Centre Number	Candidate Number

WELSH JOINT EDUCATION COMMITTEE
General Certificate of Secondary Education



CYD-BWYLLGOR ADDYSG CYMRU
Tystysgrif Gyffredinol Addysg Uwchradd

178/03*265/02

GCSE INFORMATION AND COMMUNICATION TECHNOLOGY PAPER 1
GCSE (SHORT COURSE) INFORMATION AND COMMUNICATION TECHNOLOGY

(Higher Tier – Grades D to A*)

P.M. TUESDAY, 23 May 2006

(1 hour 30 minutes)

Examiner's Use Only	
Total Mark	

INSTRUCTIONS TO CANDIDATES

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **all** questions.

Write your answers in the spaces provided in this booklet. Where the space is not sufficient for your answer, continue the answer at the back of the book, taking care to number the continuation correctly.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.

No certificate will be awarded to a candidate detected in any unfair practice during the examination.

1. A designer's first attempt at producing a poster to advertise a fashion show is shown below.

Fashion Show
at
The Design Studio
on
22nd of December
Time: 12 o'clock

She uses some of the features of her Desktop Publishing (DTP) software to improve the poster. This improved poster is shown below.



- (a) Give **two** features of the DTP software used to improve this poster. [2]
- (i) (ii)
- (b) Give **two other different** documents the designer could produce to help organise the fashion show. [2]
- (i) (ii)

2. A student is planning to furnish a flat. He has priced three options as shown in the spreadsheet below.

	A	B	C	D
1	Goods	Option A	Option B	Option C
2	Flooring	£1,000	£500	£800
3	Curtains	£200	£300	£280
4	Sofa	£1,800	£1,000	£500
5	Chair	£300	£300	£340
6	Lamp	£100	£50	£60
7	Coffee table	£200	£70	£120
8	Rug	£200	£180	£200
9	TV	£600	£200	£500
10	Total	£4,400	£2,600	£2,800
11	10 % Discount	£440	£260	£280
12	Total Bill	£3,960	£2,340	£2,520

- (a) Which of the following formulas could be used to give the **Total** for **Option A** in CELL B10? [1]

- A =B2+B3+B4+B5+B6+B7+B8+B9
 B =B2+C2+D2
 C =SUM(B2:B12)
 D =SUM(B2:B9)
 E =TOTAL(B2:B10)

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- (b) He changes the cost of the sofa in **Option A** from £1800 to £1500.

Give **two other** cells that would also change. [2]

.....

- (c) Which of the following formulas could the student have typed in to give the 10 % discount in Cell B11? [1]

- A =B10 - 10
 B =(B10/100) * 90
 C =B10 * 0.9
 D =B10 * 0.1

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- (d) Give a suitable formula for the **Total Bill** in D12. [1]

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- (e) *Other than automatic recalculation*, give **two** advantages of using a spreadsheet for calculating the different furnishing options. [2]

Advantage 1:
.....
.....

Advantage 2:
.....
.....

3. Banks issue different types of plastic cards to customers.

- (a) Give **three** different *types* of plastic cards used by bank customers. [3]

- (i)
- (ii)
- (iii)

- (b) On the back of these bank cards are magnetic strips. Give **three** items of data encoded in the magnetic strip. [3]

- (i)
- (ii)
- (iii)

(c) Mugging and card copying are crimes often associated with the use of these bank cards.

(i) Give **two** methods used to prevent the copying of bank cards. [2]

I.

II.

(ii) State **one** *other* crime associated with the use of such cards and describe **two** methods of prevention. [3]

Crime:

Prevention 1:

Prevention 2:

(d) These cards are used to obtain cash from automatic teller machines (ATMs) commonly called *cashpoints*.

(i) Give **two** advantages *to customers* in using ATMs to obtain cash rather than going into the bank. [2]

Advantage 1:

Advantage 2:

(ii) Give **three** *other* services, apart from obtaining cash, that are available at ATMs. [3]

Service 1:

Service 2:

Service 3:

4. A new e-commerce company wants to sell videos and music online.

- (a) Use the list given below to complete the table showing the most suitable facility needed for each task. [3]

Broadband

Web page

Media company

Shopping basket

Virus protection

Secure payment site

Task	Facility needed
Advertising the videos and music for sale on the Internet.	
Storing details of the videos and music you are going to buy.	
Purchasing videos and music.	

- (b) The customer can receive their goods by mail or they can *download* them.

Discuss the advantages and disadvantages of *downloading* goods rather than having them sent by normal post. [4]

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5. A shop has four standalone computers. The owner has decided to network these computers.

(a) Give **two** *advantages* of a network for the shop owner. [2]

Advantage 1:
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Advantage 2:
.....

(b) Give **four** rules staff working in the shop must follow when using the *network*. [4]

- (i)
- (ii)
- (iii)
- (iv)

(c) Give **two** rules staff working in the shop must follow when using the *Internet*. [2]

- (i)
- (ii)

(d) The shop owner has used her DTP software to create a leaflet with details of special offers. She now needs to email the leaflet to all customers.

Describe how the shop owner could best do this. [3]
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(e) She sends her leaflet using a *modem*.
Give the purpose of a *modem*.

[1]

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.....

(f) The shop owner wants to use broadband to connect to the Internet.
Give **one** advantage of using broadband over the normal telephone line.

[1]

.....
.....

6. Give suitable examples of how a school pupil could use the following to help with schoolwork. [4]

Distance learning:

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.....

Sound technology:

.....
.....

A sensor:

.....
.....

Digital imaging software:

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7. A student enters *data* into a database. Part of this database is shown below.

Code	Town	Date of visit	Special feature	Type	Coastal
1	Harlech	13/04/05	Castle	Tourist	Y
2	Newquay	15/04/05	Harbour	Tourist	Y
3	Brecon	16/04/05	National Park	Rural	N
4	Port Talbot	17/04/05	Steel Mill	Industrial	N
5	Rhyl	12/04/05	Sun Centre	Tourist	Y
6	Lampeter	14/04/05	College	Rural	N
7	Aberystwyth	15/04/05	Pier	Tourist	Y

(a) State what is meant by *data*. [1]

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(b) Give **one** advantage of *encoding* data. [1]

(c) The database will be sorted in *ascending* order of **Date of visit**.

Give the date which would appear at the *top* of the list. [1]

(d) The student wants to find the details on all *rural* towns.
Write down the *field* and the *search* data needed to get the data from this database. [1]

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(e) The student wants to find the details on all *coastal* towns which are *tourist* centres.
Describe how he can get the information from this database. [3]

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8. Weather forecasts can be obtained on teletext services or interactive services.

(a) Give **one** advantage of using *interactive* services rather than *teletext* services to obtain the weather forecasts. [1]

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(b) Weather forecasts are produced by simulation models.

Give **one** *disadvantage* of using simulation models to predict the weather. [1]

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.....

9. People can use their interactive digital television to receive many TV channels.

(a) In addition to *these extra TV channels*, interactive digital television offers many other services.

Give **three** *other different types* of service available on interactive digital television. [3]

(i)

(ii)

(iii)

(b) Give **two** *disadvantages* of using interactive digital television. [2]

Disadvantage 1:

.....

Disadvantage 2:

.....

10. Give an example of use for **each** of the following methods of data entry. [3]

(a) O.M.R.

Example of use:

(b) M.I.C.R.

Example of use:

(c) O.C.R.

Example of use:

A series of horizontal dotted lines for writing.

A series of horizontal dotted lines for writing.

For continuation only.

A series of horizontal dotted lines for writing.