WJEC CBAC

GCSE

251/01

INFORMATION AND COMMUNICATION TECHNOLOGY (PILOT)

PAPER 1

Foundation Tier

P.M. MONDAY, 13 June 2011

1 hour

Examiner's Use Only		
Question	Maximum Mark	Mark Awarded
1	11	
2	2	
3	9	
4	9	
5	6	
6	10	
7	4	
8	5	
9	2	
10	2	
Total Mark	60	

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.

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.

If you run out of space in the question-and-answer booklet you may use continuation sheets. Number the questions clearly and put your sheets in this question-and-answer booklet.

INFORMATION FOR CANDIDATES

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

*Answer **all** questions.*

1. An estate agent uses Desktop Publishing (DTP) software to create the following business card.

> *M Houseman*
>
> 12 Court Yard
> Cellan
> Cardiff
> Wales
> CA37 7RE
>
> Tel 02929967927

(a) Tick (✓) which **four** of the following features were used to produce this business card.

[4]

CLIP ART	1
BORDER ART	2
RIGHT JUSTIFY	3
CENTRE TEXT	4
FONT STYLE	5

(b) Give **one** feature of the DTP software which could be used to check for spelling mistakes. [1]

....

(c) Give **two** other *types* of documents the estate agent could produce using DTP software.
[2]

Document 1 ....

Document 2 ....

(d) Give a suitable example of how each of the following types of software could be used by the estate agent in running his business. [2]

The first one has been done for you.

Type of software	Use in an estate agent's business
Spreadsheet	*To work out the profit and loss accounts for the business.*
Multimedia software	
Database software	

(e) Give **one** potential health risk the estate agent could suffer when using a computer and say how it could be prevented. [2]

Health risk ....

Prevention ....

....

⑪

2. Complete the following sentences using only the words given in the list below by putting a letter, A, B or C in the correct box.

A. INFORMATION

B. DATA

C. FIGURES

Use each word only once.

(a) Raw readings collected from sensors are called ☐ [1]

(b) The readings are used to create a graph and this gives us ☐ [1]

②

Turn over.

3. A sports centre manager has begun to set up a computerised database of members. Part of this database is shown below.

Member Number	Name	Gender	Start Date	Club	Disabled Parking Permit
1432	Davies, Y	M	01/01/2010	Basketball	Y
5276	Ali, R	M	04/05/2010	Tennis	N
2863	Peters, L	F	03/09/2010	Soccer	Y
8234	Mertson, S	M	12/09/2010	Tennis	N
2869	Jones, D	F	03/01/2010	Basketball	Y
2945	Smith, F	F	02/09/2010	Soccer	N
2876	Evans, L	M	14/09/2010	Soccer	N

(a) How many *records* are in this database? [ ] [1]

(b) State the *'keyfield'*. .... [1]

(c) The manager wants to use validation techniques in the database to prevent errors when entering the data. Circle which of the following is the **most suitable** validation technique for each field.
Do not use the same technique twice. [2]

Field	*Validation Techniques*
Gender	**PRESENCE CHECK** **LIST BOX** **CHECK DIGIT** **FORMAT CHECK**
Start Date	**PRESENCE CHECK** **LIST BOX** **CHECK DIGIT** **FORMAT CHECK**

(d) The 'Gender' field uses coded data e.g. M and F.
Give **one** advantage of using coded data. [1]

....

....

(e) How many members in the database shown above are in the '*Tennis*' Club? [ ]

[1]

(f) The manager wants to send a letter to all disabled parking permit holders.
Write down the *field* and the *search* data needed to get this data from this database. [1]

....

(g) Give **one** reason why the manager would add a new record to this database. [1]

....

(h) Give **one** advantage of keeping membership data on a computer database. [1]

....

....

4. Bank cards can be used in shops at the Point of Sale (POS) system commonly called a '*checkout*'.

(a) Give **two** types of *bank card* that can be used at the POS. [2]

....

(b) Give a reason why bank cards have a PIN number. [1]

....

(c) Tick (✓) to show which **two** *input* devices are found at a shop *checkout*. [2]

Tick (✓) **two** boxes only

Weighing scales | 1 |

Card reader | 2 |

Speaker | 3 |

Printer | 4 |

(d) *Other than bank cards,* give **two** different ways shoppers can pay for their goods. [2]

(i) ....

(ii) ....

(e) Bar codes on goods do **not** contain the *Price*.

Give **two** items of data *encoded* in the bar code. [2]

....

Turn over.

5. A student has £100 a week to spend and is trying to save £60 to buy a concert ticket. The student used the following spreadsheet to help him plan his budget.

	A	B
1		
2	Weekly Income	£100
3		
4	Food	£20
5	Utilities	£10
6	Phone and Internet	£10
7	Clothes and entertainment	£20
8	Rent	£25
9	TOTAL	£85
10		
11	Savings	£15

(a) Give the total amount he is planning to save in **one** week. [1]

(b) Tick (✓) which **two** of the following are *cell formatting* features used in this spreadsheet. [2]

Tick (✓) **two** boxes only

Right Align ☐ 1

Decimals ☐ 2

Formulas ☐ 3

Currency ☐ 4

(c) Write a label, A, B, C or D in the box to show which of the following formulas could be used to give the Total Cost in **Cell B9**. [1]

A   =B9+C9+D9+E9
B   =SUM(B4:B8)
C   =B4+B5+B6+B7+B8
D   =Total Cost B:E

(d) Give a formula which could be used to give the *Savings* in **Cell B11**. [1]

....

(e) The student produced a graph of his spending as shown below.

Spending Each Week
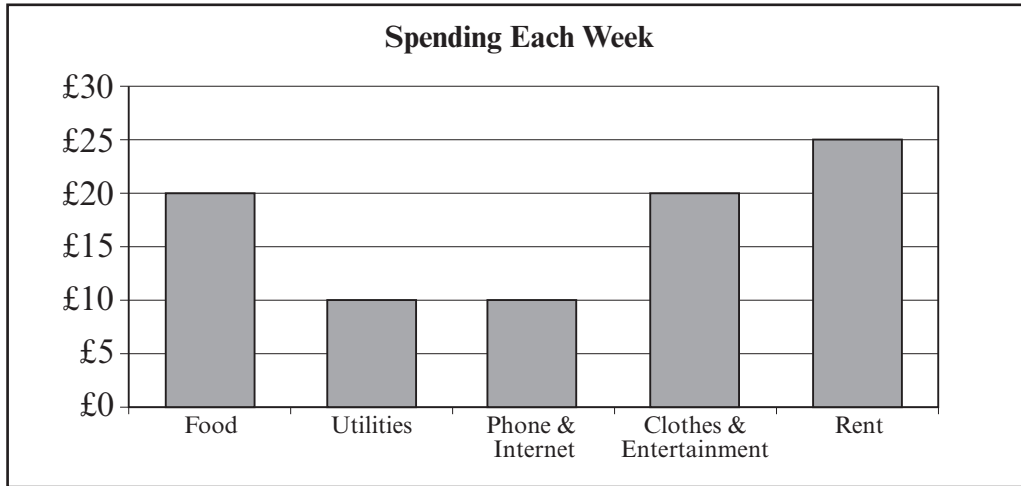
Give the *type* of graph he used. .... [1]

Turn over.

6. A school has a network

(a) What is a *network*? [1]

....

(b) Tick (✓) the **two** items needed when a new pupil is added to the school network. [2]

Tick (✓) two boxes only

IT teacher	1
Username	2
Password	3
IT room	4

(c) Give **two** rules about passwords a pupil should obey. [2]

Rule 1 ....

....

....

Rule 2 ....

....

....

(d) Tick (✓) the **two** sentences which are *advantages* of using a network. [2]

Tick (✓) two boxes only

Networks are more reliable than stand alone computers	1
Networks share viruses	2
Networks share programs	3
Networks share printers	4

(e) Teachers use email to send messages to other teachers on the network.

Tick (✓) the **two** sentences which are *advantages* of using email on the school network.
[2]

Tick (✓) two boxes only

Email is easy to use   ☐ 1

Emails are likely to spread viruses   ☐ 2

You can record when the email is sent   ☐ 3

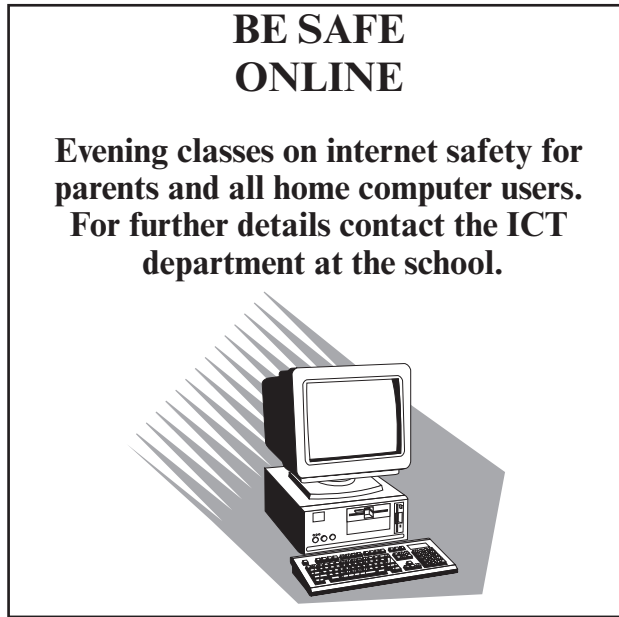Emails can be edited   ☐ 4

(f) Teachers can also put notices to pupils on the school's intranet.

Give an example of a suitable type of notice a teacher might put on the intranet *for pupils*. [1]

....

⑩

Turn over.

7. The following poster appeared in a shop.

**BE SAFE
ONLINE**

**Evening classes on internet safety for
parents and all home computer users.
For further details contact the ICT
department at the school.**

(a) Describe **two** pieces of advice home users might be given about *virus protection.* [2]

Advice 1

....

....

Advice 2

....

....

(b) Give **two** problems which could arise for *children using the Internet at home.* [2]

Problem 1

....

....

Problem 2

....

....

/4

8. A company has a website.

(a) Tick (✓) **two** essential facilities needed for a website. [2]

Tick (✓) two boxes only

An accountant | 1 |
A spreadsheet | 2 |
An internet service provider | 3 |
A web address (url) | 4 |

(b) Customers can buy the company's products online *(online shopping)*.

Other than being able to shop from home, give **one** advantage for the customer of online shopping. [1]

....

....

....

....

(c) Give **one** *disadvantage* of online shopping. [1]

....

....

....

....

(d) *Other than online shopping*, give **one** other use for a company's website. [1]

....

....

....

Turn over.

9. A computer controls a burglar alarm.
This burglar alarm is linked to a sensor and an output device.

(a) Give a suitable **sensor** which could be used in this burglar alarm system. [1]

....

(b) Give a suitable **output device** which could be used in this burglar alarm system. [1]

....

10. A computer uses *wireless* devices.

(a) Name **one** *wireless* device used with a computer. [1]

....

(b) Give **one** advantage of using *wireless* devices. [1]

....