

Pearson Edexcel International GCSE

Information and Communication Technology

Paper 2: Practical Paper

14–18 May 2018

Time: 3 hours

Paper Reference

4IT0/02

You must have:

Short treasury tag, cover sheet

Data Files: AWARDS, BADMINTON, CRUACHAN, NOMINEES,
WEBPAGES, IMAGES folder

Instructions

- Complete your candidate details on the cover sheet provided.
- At the end of the examination use a treasury tag to attach your printouts to page 2 of the cover sheet.

Information

- There are **five** activities in this examination paper totalling **100** marks.
- The marks for the parts of tasks are shown in round brackets: e.g. **(2)**.

Advice

- Read through the instructions on page 3.
- Attempt **ALL** activities.
- Take breaks away from the computer from time to time.
- Label your printouts clearly as instructed in each task.

Turn over ►

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Instructions to Candidates

This paper consists of **five** activities.

Work through the activities and tasks in order.

Do not spend too much time on any one activity.

A suggested time is given at the start of each activity.

For all tasks, you **MUST** enter the task number, your name, candidate number and centre number **BEFORE PRINTING**.

This table shows the marks and data files needed for each activity.

Activity		Marks	Data files needed
1	Using Art/Imaging and Graphics Software (AG)	13	IMAGES folder
2	Using Database Software (DB)	27	CRUACHAN
3	Using Web Authoring Software (WA)	17	WEBPAGES, IMAGES folder
4	Using Spreadsheet Software (SS)	28	BADMINTON
5	Using Word Processing (WP)	15	AWARDS, NOMINEES
Total Marks		100	

For all activities, you may also need to use word processing software.

Scenario

Sammi Weston is the organiser of the Cruachan Badminton League.

These are Sammi's contact details.

Ms Sammi Weston
Cruachan Badminton League
Cashel Road
Clannagh
Republic of Ireland

Telephone: 020 916 2018

Email: sammiw@cruachanbl.org.ie

Website: www.cruachanbl.org.ie

Activity 1 – Using Art/Imaging and Graphics Software (AG) (suggested time 25 minutes)**Task AG1**

Sammi wants a logo for the 2018 badminton competition.

Open a new document using word processing software.

Enter **Task AG1**, your name, candidate number and centre number in the footer of the document.

SAVE the word processed document as **TASK AG1**.

(a) Create a logo for the 2018 badminton competition.

It must be fit for purpose and include:

- the text **CBL-2018**
- **one** suitable image from the **IMAGES** folder.

(3)

SAVE the logo as **CBL**.

Paste a copy of **CBL** into **TASK AG1**.

RESAVE TASK AG1.

DO NOT PRINT at this stage.

(b) In document **TASK AG1**, identify **three** features that make a logo fit for purpose.

(3)

Make sure that **TASK AG1** is still on **one** side of A4.

RESAVE TASK AG1.

PRINT TASK AG1 on **one** side of A4.

(Total for Task AG1 = 6 marks)

Task AG2

Open a new document using word processing software.

Enter **Task AG2**, your name, candidate number and centre number in the footer of the document.

SAVE the word processed document as **TASK AG2**.

Sammi wants to use the image **GROUP** on the club's website.

In a suitable graphics package, open the image **GROUP** from the **IMAGES** folder

The image shows a group of people in front of a wall.

(a) The image must remain rectangular.

Crop the image to remove:

- the lower half of the people (to approximately waist level)
- the person on the left
- the two people on the right
- the section of the wall above the people.

(3)

(b) There is a window in the wall (the black rectangle) between the male with the black top and the female with the brown top.

Alter the image so that the window is no longer visible.

(2)

SAVE the image as **COLTS**.

Paste a copy of **COLTS** into **TASK AG2**.

RESAVE TASK AG2.

DO NOT PRINT at this stage.

(c) Answer this question on document **TASK AG2**.

The image will be used on a website.

Explain **one** benefit of reducing the size of the image **COLTS** before it is used on the website.

(2)

RESAVE TASK AG2.

PRINT TASK AG2 on **one** side of A4.

(Total for Task AG2 = 7 marks)

TOTAL FOR ACTIVITY 1 = 13 MARKS

Activity 2 – Using Database Software (DB) (suggested time 45 minutes)

Sammi has created a database to store player and team details.

Player details are stored in the **PLAYER** table.

Task DB1

Open the **CRUACHAN** database.

Open the **PLAYER** table.

The structure of the **PLAYER** table is:

Field Name	Data Type	Description
PLAYER_ID	Text	Unique code for each player – consists of three digits followed by first letter of first name, first letter of last name. e.g. 123SW for Sammi Weston
FIRSTNAME	Text	Player first name
LASTNAME	Text	Player last name
GENDER	Text	M for male or F for female
DOB	Date/Time	Player date of birth (short date format e.g. 01/01/2018)
PHONE	Text	Player telephone number
EMAIL	Text	Player email address
TEAMCODE	Text	Player team code (one of AA, BB, CC, DD, EE, FF, NA)

(Note: TEAMCODE is the first letter of each word of the team name; **NA** is for players not in a team.)

(a) Sammi wants a new player added to the database.

Add these player details to the **PLAYER** table.

Player_ID digits	171
First name	Maria
Last name	Brett
Gender	Female
Date of birth	12 March 1997
Telephone number	020 916 5888
Email address	mariabrett@contact.org.ie
Team	Clicka Colts

(3)

(b) Sort the **PLAYER** table in alphabetical order of **FIRSTNAME** within alphabetical order of **LASTNAME**.

(2)

SAVE the **PLAYER** table.

Open a new document using word processing software.

Set the orientation to landscape.

Enter **Task DB1**, your name, candidate number and centre number in the footer of the document.

SAVE the word processed document as **TASK DB1**.

Paste a copy of the sorted **PLAYER** table into **TASK DB1**.

Make sure all the data is displayed and easy to read.

DO NOT PRINT at this stage.

(c) In document **TASK DB1**, explain why:

(i) the data type for **PHONE** is set as text, not number

(2)

(ii) the date of birth (**DOB**) of each player is stored, rather than their age.

(2)

RESAVE TASK DB1.

PRINT TASK DB1.

(Total for Task DB1 = 9 marks)

Task DB2

Open a new document using word processing software.

Enter **Task DB2**, your name, candidate number and centre number in the footer of the document.

SAVE the word processed document as **TASK DB2**.

(a) Sammi wants a list of players who are in the Dovea Dragons team.

She wants all fields displayed.

Create a query/search on the **PLAYER** table to find this information.

(2)

SAVE the query/search as **DB2a**.

Display the results of the query/search.

Paste a copy of the results of your search into **TASK DB2**.

RESAVE TASK DB2.

DO NOT PRINT at this stage.

(b) Sammi wants a list of players who were born on or after 1 January 2000.

The list should show only the fields **LASTNAME**, **FIRSTNAME**, **EMAIL** and **DOB** in this order.

Create a query/search on the **PLAYER** table to find this information.

(3)

SAVE the query/search as **DB2b**.

Display the results of the query/search.

Paste a copy of the results of your search into **TASK DB2**.

RESAVE TASK DB2.

PRINT TASK DB2.

(Total for Task DB2 = 5 marks)

Task DB3

Sammi has stored details of sales of team shirts in the database.

The **STOCK** table contains details of the shirts available.

The **SALE** table contains a list of the shirts sold.

The **PLAYER** table is linked to the **TEAM** table and the **SALE** table.

The **STOCK** table is linked to the **SALE** table.

Open a new document using word processing software.

Enter **Task DB3**, your name, candidate number and centre number in the footer of the document.

SAVE the word processed document as **TASK DB3**.

(a) Display the relationship diagram for the database on the screen.

Make sure that all fields in all tables are displayed.

(i) Take a screen shot of the relationship diagram.

(1)

Paste the screen shot into **TASK DB3**.

RESAVE TASK DB3.

DO NOT PRINT at this stage.

In document **TASK DB3**:

(ii) identify the primary key in the relationship between the **PLAYER** table and the **TEAM** table

(1)

(iii) explain why the relationship between the **TEAM** table and the **PLAYER** table is **one-to-many**.

(2)

RESAVE TASK DB3.

DO NOT PRINT at this stage.

(b) Sammi wants a list of the male players who have bought a large shirt.

The list should:

- show only the fields **TEAMNAME, LASTNAME, FIRSTNAME, EMAIL, SALE_DATE, COLOUR, GENDER, SIZE**
- be sorted in alphabetical order of **LASTNAME** within alphabetical order of **TEAMNAME**.

Create a query/search to find this information from the linked tables.

(4)

SAVE the query as DB3b.

Paste a copy of the results of your search into **TASK DB3**.

Make sure that all results from **Task DB3** are displayed and are easy to read.

RESAVE TASK DB3.

PRINT TASK DB3.

(Total for Task DB3 = 8 marks)

Task DB4

Sammi wants a database report using the results of the query/search carried out in **part (b)** of **Task DB3**.

Create the database report.

The database report must:

- have a suitable title
- show only the fields **FIRSTNAME, LASTNAME, EMAIL, SALE_DATE** in this order.

Make sure that:

- the column headings are easy to understand
- the database report fits onto one side of A4, portrait
- the database report is fit for purpose.

Enter **Task DB4**, your name, candidate number and centre number in the page footer.

SAVE the database report as **TASK DB4**.

PRINT the database report.

(Total for Task DB4 = 5 marks)

TOTAL FOR ACTIVITY 2 = 27 MARKS

Cruachan Badminton League Logo	CRUACHAN BADMINTON LEAGUE	
Home Athnid Allstars Brosna Bears Clicka Colts Dovea Dragons Erry Eagles Fantane Firestorm	ATHNID ALLSTARS Athnid Allstars are the 2017 champions. They won the title last year in a thrilling finish by winning their last three matches against their nearest rivals to overtake Fantane Firestorm in the last match. The team are always on the lookout for new players. If you are interested in joining Athnid Allstars, please contact Jacob James By phone 020 918 1234 By email jjames@athnidbc.org.ie	
Cruachan Badminton League Logo	CRUACHAN BADMINTON LEAGUE	
Home Athnid Allstars Brosna Bears Clicka Colts Dovea Dragons Erry Eagles Fantane Firestorm	BROSNA BEARS Brosna Bears are the most successful team in the league's history. We have won the title seven times in the last 10 years. We have also won the cup competition more times than any of the other teams. We are looking out for new players. If you want to join this successful team, please contact Hiram Khalish By phone 020 916 5678 By email hkhalish@brosna.com	

Figure 1

Activity 3 – Using Web Authoring Software (WA) (suggested time 35 minutes)

You may use any appropriate software for this activity.

Task WA1

Sammi has started to create a website for Cruachan Badminton League.

The website will have a home page (**index.html**) and a page for each team in the league.

Sammi has already created pages for Athnid Allstars (**Athnid.html**) and Brosna Bears (**Brosna.html**). These pages are shown in **Figure 1**.

Your task is to create web pages for the other four teams.

The pages must:

- use a dark blue sans serif font
- have a pale yellow background
- include:
 - links to the home page and other team pages
 - the logo you created in **part (a)** of **Task AG1** (replacing the text in the top left-hand corner)
 - appropriate information for each team selected from **WEBPAGES**.

(a) Create **FOUR** web pages using the layout shown in the screen shots in **WEBPAGES**.

- Create a web page for Clicka Colts.
- Include the image **COLTS** you saved in **part (b)** of **Task AG2**.

SAVE the web page as **CLICKA**.

- Create a web page for Dovea Dragons.
- Include an appropriate image selected from the **IMAGES** folder.

SAVE the web page as **DOVEA**.

- Create a web page for Erry Eagles.
- Include an appropriate image selected from the **IMAGES** folder.

SAVE the web page as **ERRY**.

- Create a web page for Fantane Firestorm.
- Include an appropriate image selected from the **IMAGES** folder.

SAVE the web page as **FANTANE**.

(8)

(b) Make sure that your web pages are fit for purpose.

Open a new document using word processing software.

Enter **Task WA1**, your name, candidate number and centre number in the footer of the document.

SAVE the word processed document as **TASK WA1**.

For **each** of the four pages you created:

- display the page on the screen
- make sure all the content is visible
- take a screen shot of the page
- paste the screen shot into **TASK WA1**.

(5)

Make sure that all the content of **each** web page is clearly visible.

RESAVE TASK WA1.

DO NOT PRINT at this stage.

(c) Answer these questions on document **TASK WA1**.

- (i) On **one** of the screen shots, identify **one** formatting technique that you used.

(1)

- (ii) Give **one** reason for using this technique.

(1)

RESAVE TASK WA1.

PRINT TASK WA1.

(Total for Task WA1 = 15 marks)

Task WA2

Open a new document using word processing software.

Enter **Task WA2**, your name, candidate number and centre number in the footer of the document.

SAVE the word processed document as **TASK WA2**.

Display the source code for the **CLICKA** web page.

Take a screen shot of the source code that clearly shows the hyperlink to your **DOVEA** page.

Paste the screen shot into **TASK WA2**.

Clearly highlight the code for the hyperlink to the **DOVEA** web page.

(2)

Make sure that the source code for the link to the **DOVEA** web page is clearly visible.

RESAVE TASK WA2.

PRINT TASK WA2.

(Total for Task WA2 = 2 marks)

TOTAL FOR ACTIVITY 3 = 17 MARKS

Activity 4 – Using Spreadsheet Software (SS) (suggested time 45 minutes)

Cruachan Badminton League sells sports shirts.

The **SALES** worksheet in the **BADMINTON** spreadsheet contains details of the sales of different types of shirt.

Task SS1

Open the **BADMINTON** spreadsheet.

Enter **Task SS1**, your name, candidate number and centre number in the footer of the worksheet.

(a) Sammi wants to know the total number of shirts sold.

Enter a formula in cell **D13** to calculate the total number of shirts sold.

(2)

SAVE the spreadsheet as **SHIRTS**.

DO NOT PRINT at this stage.

(b) The pre-tax price of a shirt is the cost of the shirt plus the profit.

The percentage profit is stored in cell **C16**.

(i) Enter a formula in cell **E2** to calculate the **PROFIT PER SHIRT** for a small female shirt.

(2)

(ii) Enter a formula in cell **F2** to calculate the **PRE-TAX PRICE** of a small female shirt.

(1)

(iii) Replicate these formulae for the other shirts.

(2)

RESAVE the spreadsheet.

PRINT the **SHIRTS** spreadsheet on **one** side of A4 showing the **formulae**.

Make sure that row and column headings are shown.

Make sure that all columns are wide enough to show the complete formulae.

(Total for Task SS1 = 7 marks)

Task SS2

Sales tax needs to be added to the pre-tax price of each shirt.

The percentage sales tax is stored in cell **C17**.

- (a) Enter a formula in a suitable cell to calculate the sales tax for a small female shirt. (2)
- (b) Enter a formula in a suitable cell to calculate the price including tax for a small female shirt. (1)
- (c) Replicate these formulae for the other shirts. (1)

RESAVE the spreadsheet.

PRINT the spreadsheet on **one** side of A4 showing the **formulae**.

Make sure that row and column headings are shown.

Make sure that all columns are wide enough to show the complete formulae.

(Total for Task SS2 = 4 marks)

Task SS3

Sammi wants to know how much profit has been made.

- (a) Enter formulae in suitable cells to calculate:
 - (i) the profit from the sales of each type of shirt (1)
 - (ii) the total profit from the sales of shirts (1)
 - (iii) the average profit from each sale. (1)

RESAVE the spreadsheet.

DO NOT PRINT at this stage.

- (b) Enter suitable labels for the columns added in **Task SS2** and **Task SS3**. (1)

RESAVE the spreadsheet.

PRINT the spreadsheet on **one** side of A4 showing the **formulae**.

Make sure that row and column headings are shown.

Make sure that all columns are wide enough to show the complete formulae.

(Total for Task SS3 = 4 marks)

Task SS4

Display the worksheet in data view.

Sammi wants the average profit on each sale to be between £3.30 and £3.50.

- (a) Change the value of the percentage profit so that the average profit is between £3.30 and £3.50.

The percentage profit must be a whole number.

(1)

- (b) Format the worksheet so that:

- (i) currency values show the currency symbol with two decimal places

(1)

- (ii) it is well-presented and all data is visible.

(2)

RESAVE the spreadsheet.

PRINT the spreadsheet on **one** side of A4 showing the **data**.

(Total for Task SS4 = 4 marks)

Task SS5

Open a new document using word processing software.

Enter **Task SS5**, your name, candidate number and centre number in the footer of the document.

SAVE the word processed document as **TASK SS5**.

Answer these questions on document **TASK SS5**.

- (a) Absolute cell references are sometimes used in spreadsheet formulae.

Explain, using an example, why an absolute cell reference would be used in a formula.

(2)

RESAVE TASK SS5.

DO NOT PRINT at this stage.

- (b) Display the worksheet in data view.

Paste a screen shot of the worksheet into **TASK SS5**.

- (i) Identify **one** action you took to make the worksheet look well-presented.

(1)

- (ii) State how this action made the worksheet look well-presented.

(1)

RESAVE TASK SS5.

PRINT TASK SS5.

(Total for Task SS5 = 4 marks)

Task SS6

Sammi wants a chart to show the cost of each type of shirt.

Create the chart.

It must:

- have a suitable title and axis labels
- be fit for purpose
- be saved on a separate sheet.

Enter **Task SS6**, your name, candidate number and centre number in the footer of the chart.

RESAVE the spreadsheet.

PRINT the chart to fill **one** side of A4 **landscape**.

(Total for Task SS6 = 5 marks)

TOTAL FOR ACTIVITY 4 = 28 MARKS

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ACTIVITY 5 BEGINS ON THE NEXT PAGE.

Activity 5 – Using Word Processing Software (WP) (suggested time 30 minutes)**Task WP1**

Sammi is preparing for the Annual Awards evening.

She needs to write letters to the players who have been nominated for the player of the year award.

Open a new document using word processing software.

Enter **Task WP1**, your name, candidate number and centre number in the footer of the document.

SAVE the word processed document as **TASK WP1**.

(a) Create a letterhead using:

- the contact details from the scenario on page 3 of this paper
- the logo you created in **part (a)** of **Task AG1**.

(4)

RESAVE TASK WP1.

DO NOT PRINT at this stage.

(b) The text for the letters is stored in **AWARDS**.

Copy the text from **AWARDS** into **TASK WP1**.

Edit the document by adding:

- today's date in a suitable location
- the appropriate complimentary close
- the name of the sender of the letters – making sure that you leave enough space for a signature
- appropriate formatting to the subject line so that it stands out.

(4)

RESAVE TASK WP1.

DO NOT PRINT at this stage.

(c) The **NOMINEES** spreadsheet contains details of the nominated players.

Add merge fields to **TASK WP1** that will replace the text in brackets with appropriate information from the spreadsheet.

(4)

RESAVE TASK WP1.

PRINT TASK WP1 on **one** side of A4 showing the **merge fields**.

Note:

You may be using software that does not allow you to show the merge fields in a printout of the standard letter.

If so, you should produce a screen shot of the letter showing the merge fields.

Ensure that the screen shot shows all the information including the header and footer.

Ensure that all the information can be read.

(d) Sammi wants to check and sign the letters before they are posted.

- (i) Produce the merged letters using **TASK WP1** and the **NOMINEES** spreadsheet.

Do not make any other changes to the letters.

(2)

SAVE the merged letters as **TASK WP1D**.

- (ii) **PRINT one** of the merged letters on **one** side of A4.

(1)

(Total for Task WP1 = 15 marks)

TOTAL FOR ACTIVITY 5 = 15 MARKS

TOTAL FOR PAPER = 100 MARKS

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