



Pearson

Examiners' Report

Principal Examiner Feedback

Summer 2017

Pearson Edexcel International GCSE
In Information and Communication Technology
(4IT0_02) Paper 2

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This report is split into two sections: General Comments and Specific Comments. In the Specific Comments, details about the individual activities and areas for improvement will be discussed.

GENERAL COMMENTS

This was the seventh series of Pearson's International GCSE ICT. There were approximately 5000 candidates sitting this practical paper. The large majority of candidates submitted work for all tasks. Candidates who did not submit all tasks generally failed to submit work for Activity 4 – Web Authoring.

Candidates continue to lose marks because of failure to pay attention to detail. For example:

- 11 marks were available for entering correct formulae into a spreadsheet. Many candidates failed to gain these marks because they did not submit a formula view of the spreadsheet. Often other printouts suggested that they may have done correct calculations. A small number of candidates lost marks because they failed to submit a printout of the data view when required. In these cases it was not possible to award some of the formatting marks.
- Other marks were lost due to inaccuracies where candidates were asked to enter data given on the question paper. In this paper there were a number of marks for accurate data entry – particularly in the database and graphics tasks.
- Where screen shot evidence was required, many candidates lost marks because their screen shot was cropped or resized so that the vital information was not visible or not readable.
- Fewer candidates failed to enter their candidate details on their work. However, it should be noted that the nature of this examination requires candidates to enter their details before printing to avoid suspicions of collusion by candidates. The instructions appear quite clearly in the question paper and in the specification and in the Instructions for the Conduct of the Examination (ICE) document.

Examiners were pleased to note that there was little evidence of candidates being able to access the internet during the examination. Internet usage during this examination is a breach of the regulations and may result in candidates being disqualified.

Examiners noted that most candidates were able to complete all of the tasks required, although a small number of candidates did not complete all activities. It is suggested that candidates allocate their time so that they spend approximately one and a half minutes per mark. As in previous series, guidance was provided about the length of time candidates might spend on each activity. This practice will be continued in future series.

Data files

Few issues with the data files were reported to Pearson. It seems that very few centres reproduced the files from the instructions in the Notes for Centres document, available on the Pearson Website. The notes are provided for Centres who do not use Microsoft Office products.

These files are produced in different formats so that centre staff can make sure that the files open using the software available during the examination. It should also be noted that only one version of the files should be available for candidates. There was some evidence that in some centres candidates had access to all the different versions of the data files.

Centre staff are reminded that the data files must remain confidential until after the end of the examination window, printed on the front cover of the paper. It is a breach of the regulations for staff to discuss the contents of the data files with candidates. They are made available before the examination in order that a member of staff can check that the files work with the hardware and software available during the examination. After they have been checked, the files should be copied into the candidates' examination folders. A second copy in a sub-folder of the candidate's exam folder is useful to enable candidates to re-start tasks should they wish to do so.

Centre staff should note that the data files for the 2018 examination will be available by secure download from the Pearson website approximately two weeks before the examination window.

Labelling and printing

The formatting of the paper is such that when candidates are given instructions, the separate tasks are identified within the question paper with title case for the task name (e.g. **Task PS1(b)**). When instructions are given to save or resave documents then upper case is used (e.g. Save the spreadsheet as **TASK SS2**).

Centre staff should remind candidates that it is a requirement of this examination that typed candidate details are expected on all printouts. Experience has shown that where candidates have been encouraged to label all their documents before printing in the normal classroom environment, then this is rarely an issue during the stresses of examination work.

Some examiners noted that the quality of printout varied considerably. Centres should try to ensure that the printer is capable of producing satisfactory output during the examination window. The poor quality of some printout is often to the disadvantage of the candidate when the examiner cannot read or distinguish what the candidate has produced. Centre staff should note that there is no extra credit for printing in colour. Where candidates are asked to follow a colour scheme, such as in the web authoring task in this examination, examiners use their judgement to decide whether the colour scheme has been used and will give the benefit of doubt to candidates where printouts are in monochrome. Candidates do need to check that the quality of the printout provides the evidence necessary to give credit to their work. In this year's examination, some of the work for the web authoring activity could not be seen due to the dark background used by the candidate.

Examiners reported that candidates at several centres did not collate their work in the correct order. It was also noted that candidates often did not attach their scripts to the cover sheet in the correct manner. This was often repeated by all

candidates at a centre which suggests that the candidates had been incorrectly instructed by centre staff. The cover sheet, when opened, has a punched hole in the top left corner. Candidates should punch a hole in the top left corner of the front of each printout, then attach the printouts to the cover sheet so that when the cover sheet is opened by the examiner the candidate's work is face up on the left with the marking grid on the right. Candidates at some centres make it very difficult for the examiner to gain access to the work by the way they submit their work. It is not helpful if the front and back cover are included in the tag. Also it would be helpful to examiners if thin cotton were not used as the pages tied in this manner tend to tear easily.

Examiners also noted that the work from some centres was not sorted into the same order as the attendance lists.

Resources

There are now two sets of Sample Assessment Materials available on the Pearson website. Copies of the 2011, 2012, 2013, 2014, 2015, 2016 and now 2017 question papers, data files and mark schemes and examiners reports are also available for use in preparing future candidates.

In addition, centre staff are reminded that Pearson offers the "Ask the Expert" facility on its website where Senior Examiners can answer questions from staff about the specification and examinations.

Future Examinations

The 2018 paper will be the last series using this specification. The replacement specification, 4IT1 – International GCSE Information and Communication Technology (9-1), is available on the Pearson website and should be used for teaching the two year course starting in September 2017. The new specification will be graded on the 9 to 1 scale rather than A* to G. Further information about these changes are available on the Pearson website (www.pearson.com).

SPECIFIC COMMENTS

The examination consisted of five activities based on the theme of a walking holiday in south Wales.

ACTIVITY 1 – USING SPREADSHEET SOFTWARE

In Activity 1, candidates were provided with a spreadsheet containing two worksheets which held data about payments for the holiday and other walks completed by the group. Candidates were asked to enter formulae, sort, format a worksheet and produce a graph to analyse some of the data.

In Task SS1, candidates were required to enter a range of formulae to calculate the total payment made, the average payment made, the balance to be paid and a formula to display a message if the balance to be paid was greater than the average payment. Most candidates coped quite well with these formulae. Errors which reduced the marks awarded were:

- failing to produce a printout showing the formulae. This limited the maximum marks awarded to 3 out of 12,
- inappropriate use of the SUM function when multiplying two cells and not using the SUM function for adding up a range of cells,
- not using appropriate absolute cell references for a fixed (constant) value – in this example, the cost,
- incorrect criteria in the IF function (using \geq instead of just $>$).

In Task SS2, candidates were required to sort the table of payments using a combined sort on **FirstName** within **LastName**. Many candidates failed to produce the correct sort, often ending up with names only in alphabetical order of **FirstName**. Others lost marks because they did not maintain the integrity of the data so that payments made by the walkers were jumbled. The candidates were then asked to apply formatting features including removing truncation and using currency formatting. Many candidates failed to format the cost of the holiday (entered in B3) to currency and / or failed to use zero decimal places. Finally candidates were asked to identify formatting features they had used and explain why these improved the presentation of the spreadsheet.

In Task SS3, candidates were asked to produce a chart to display the distances of the walks using the data in the second worksheet. Whilst most candidates realised that a bar chart was required, many did not use the correct data and / or produce a chart title that was suitable. Candidates should be encouraged to use the text of the question paper to guide them in their choice of title. Candidates should also be aware of the need for a consistent approach to capitalising words in chart titles and axis labels.

Key areas for improvement:

- accuracy in copying data into a spreadsheet,
- sorting a table of data in a spreadsheet whilst ensuring data integrity,
- primary and secondary sorting of spreadsheet data,
- formatting of text in a spreadsheet – for example:
 - merging cells
 - bold
 - italics
 - centring
 - left and right alignment
 - font size
- formatting of numerical data including dates and currency,
- using appropriate borders and shading,

- entering simple formulae using the arithmetic operators (*, /, + and -),
- entering formulae using simple functions (e.g. SUM),
- entering formulae to calculate percentages,
- knowing when it is appropriate to use a function like SUM,
- use of absolute and relative cell addresses in formulae,
- replication of formulae,
- use of logical operators (>, <, and =; as well as combinations of these),
- printing formula view or data view of a spreadsheet,
- printing selected columns in a spreadsheet,
- printing without truncation,
- producing suitable charts from data,
- producing appropriate titles and axis labels for a chart,
- understanding when a legend is required for a chart,
- understanding fitness for purpose and the features of a chart which is fit for purpose,
- being able to explain spreadsheet terms.

ACTIVITY 2 – USING DATABASE SOFTWARE

Candidates were provided with a database file with three tables of data about the walkers, the walks and the record of walks undertaken by the walkers.

In Task DB1, candidates were asked to enter a new record and sort the data in the WALKER table. Examiners noted that many candidates lost marks because they did not check the data that they entered was correct and consistently formatted with data already present in the table. Some candidates also lost marks because they did not carry out a correct sort on the data. Truncation of data was an issue for some candidates – particularly those who took screen shots of the data rather than copying the table into a word-processing document. The candidates were then asked to identify an appropriate validation rule for the TITLE field and explain the use of validation rules in a database. Even though the description of the structure of the WALKER table indicated that the TITLE field was 'Mr' or Ms' or 'Dr', many candidates failed to realise that this was the response required for the first part of this task. Few candidates were able to identify the concept of consistency and reducing errors as reasons for validation rules. 'Accuracy' without expansion was not considered creditworthy as it would still be possible to enter an incorrect title (e.g. 'Mr' instead of 'Dr').

In DB2, candidates were asked to carry out two searches of the data in the database. Most candidates achieved good marks on this task. Those that did not gain full marks gave incorrect search criteria or displayed incorrect fields.

In Task DB3(a), candidates were asked to explain theoretical aspects of relational database structure. These were poorly answered. It would seem that candidates are able to create and use database structures but do not always understand the reasons for the structures.

For Task DB3(b) candidates were asked to create a query to find records of walkers who had completed either of two walks using the linked tables. Many candidates did not check that their output matched the requirements and ended up with a list which included other walks as well as those required.

In Task DB4 candidates were required to produce a database report based on the query produced in Task DB3(b). The better candidates managed to produce good reports but often lost marks due to inconsistencies in the customisation of column headings and also failure to follow instructions to produce a landscape report layout.

Key areas for improvement:

- entering data accurately using a format consistent with other records,
- primary and secondary sorting in ascending and descending order,
- simple searches,
- searches using multiple criteria,
- displaying all / selected fields in output in requested order,
- identifying appropriate validation rules,
- being able to explain theoretical aspects of database structures,
- creating customised reports from database queries.

ACTIVITY 3 – USING ART/IMAGING AND GRAPHICS SOFTWARE

In Activity 3, candidates were asked to create a badge using an image from the data files and adding text identified in the question paper. They were then asked to edit an image for use on web page.

In creating the badge most were able to choose a suitable image from the data files. Most also added the correct text. Candidates who did not gain full marks for this task included the image of a cyclist or a photograph rather than one of the line art drawing of walkers. A large number of candidates managed to achieve an appropriate balance between the size of the text and the image. In explaining why their badge was fit for purpose, many candidates were able to identify that the image in a badge needs to be simple. A few candidates commented on the need for a vector graphic rather than a bitmap image so that resizing would not be an issue.

Cropping of the given image in part (b) was reasonably well done, however, several candidates failed to crop close enough. Many candidates identified the requirement that the image focussed on the castle. Fewer candidates discussed the improvements in upload / download speed as a result of the smaller file size.

Key areas for improvement:

- accuracy in copying text from the question paper,
- understanding the requirements of an image used in a logo or badge,
- understanding the differences between a bitmap and vector graphic image,
- achieving an appropriate balance in producing a logo or badge which combines text and image,
- being able to amend images effectively,
- being able to crop images effectively.

ACTIVITY 4 – USING WEB AUTHORING SOFTWARE

Whilst the activity is described as using web authoring software, the candidates are informed that any suitable software is acceptable for this activity. Appropriate web pages can be produced using a variety of software, including dedicated web authoring software such as Adobe Dreamweaver and multipurpose software such as Microsoft Word. The requirement is that the software is able to save the documents as hypertext mark-up language files.

Candidates were asked to use resources that were provided to create three web pages based on the page design in the question paper using resources provided. Most candidates produced appropriate content for the web pages though use of the page design was less obvious at times. There was often an issue with seeing the content because candidates used a pale green background colour that was too dark when printed on a monochrome printer. A quick check of the printout would have alerted the candidate to this issue and could have resulted in higher

marks. Candidates should be reminded that examiners cannot credit work if it is not readable.

In the second part of this activity, candidates were asked to identify the hypertext code for the link to one of the pages. This was often not completed in the manner required in the question paper with a screen shot of the source code of the required page. They were also asked the reason for organisations using a house style. Many candidates focussed too much on the particular group using 'environmental' colours rather than on the need for consistency across documents and the guidance it gives to contributors.

Key areas for improvement:

- producing web pages using a given page design,
- combining text and images effectively,
- saving files with appropriate (or given) names,
- producing screen shots of source code for a web page,
- identifying key elements of source code such as hyperlinks, images and text formatting,
- understanding the use of house styles by organisations.

ACTIVITY 5 – USING WORD PROCESSING SOFTWARE

In Task WP1, candidates were asked to produce an information sheet for the holiday using text and images provided. They were to integrate text extracted from two data files and elements of the contact details with some of the images from the IMAGES folder. They were then to tabulate the daily schedule.

In Task WP2, candidates were asked to identify reasons for proofreading a document after using a spell checker and reasons why tabulating the schedule was appropriate. These questions were mostly answered well though often falling short of full marks because they were too vague. For example, 'easier to read' was not considered worthy of two marks without expansion of why.

Key areas for improvement:

- careful copying of text from the question paper and / or data files,
- understanding and use of layout conventions for common document types such as information sheets,
- integrating a text document and images and tables,
- consistent formatting of text,
- using software tools to check spelling and grammar,
- understanding the need for proofreading after spell checking a document,
- understanding the reasons for using particular formatting techniques.

