

Cambridge  
International  
AS & A Level

**Cambridge International Examinations**  
Cambridge International Advanced Subsidiary and Advanced Level

CANDIDATE  
NAME

CENTRE  
NUMBER

--	--	--	--	--

CANDIDATE  
NUMBER

--	--	--	--

\* 3 3 9 2 3 2 4 8 1 3 \*

**APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY**

**9713/02**

Paper 2 Practical Test

**May/June 2014**

**2 hours 30 minutes**

Additional Materials: Candidate Source Files

**READ THESE INSTRUCTIONS FIRST**

Make sure that your **Centre number**, **candidate number** and **name** are written at the top of this page and are clearly visible on every printout, before it is sent to the printer.

DO **NOT** WRITE IN ANY BARCODES.

Carry out **every** instruction in each task.

At the end of the exam put this **Question Paper** and **all** your printouts into the Assessment Record Folder.

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

Any businesses described in this paper are entirely fictitious.

This document consists of 4 printed pages.

You work as a consultant for Rock ICT who produce and sell music. Rock ICT have merged with companies in other countries. Spreadsheet data from each of these companies has been combined into a file using comma separated values. You are going to manipulate this data and develop a database to record and extract information regarding employees.

You must use the most efficient method to solve each task.

- 1 You are required to provide evidence of your work, including screen shots at various stages. Create a document named:  
CentreNumber\_CandidateNumber\_Evidence.rtf  
e.g. ZZ999\_99\_Evidence.rtf  
Place your name, Centre number and candidate number in the header of your evidence document.
- 2 Open the file **J14employees.csv** and examine the data.
- 3 For each employee, use a function in the *Office code* column to extract the first three characters of their office name. [4]  
Show evidence of your method in your evidence document.
- 4 Automatically generate the employee number for each employee. The employee number is their office code followed by their payroll number displayed to six digits.  
For example: if the office is London and the payroll number is 934 the employee number will be Lon000934  
Show evidence of your method in your evidence document. [7]  
Save this file.
- 5 Create a new database with a table called **Employees** using the following field names:  
**Employee\_No**  
**Office\_Code**  
**First\_Name**  
**Family\_Name**  
**Job\_Description**  
**Pay\_Grade**  
Examine the data saved in step 4 and select the most appropriate data types for each field.  
Import only the required data. Set the most appropriate field as the primary key. [11]  
Show evidence of the table structure and contents in your evidence document.
- 6 Create a new table called **Offices** using the contents of the *Office*, *Office code*, *Currency* and 4 address columns from the file saved in step 4.  
Choose your own field names using the naming conventions shown in step 5.  
Examine the data file saved in step 4 and select the most appropriate data types for each field.  
Import only the required data, ensuring that no data is duplicated. Set the most appropriate key field. [11]

- 7 Add a new field called **Telephone\_No** to the *Offices* table.

Enter the following telephone numbers into the table:

<i>Office</i>	<i>Telephone_No</i>
London	4420878787
Shanghai	86440044001
Denver	15550111
Tawara	614614614614
Cairo	202345678
Bangkok	6666444422
New York	15550101
Male	92345678
Rio de Janeiro	555555555

Show evidence of the table structure and contents in your evidence document. [5]

- 8 Examine the data in the file **J14salary.csv**

The figures in the *Pay\_Rate* column are the salaries in £ sterling. These need to be stored with 2 decimal places.

Import this file into your database as a new table called **Salaries** using the naming conventions shown in step 5.

Select the most appropriate data type for each field. Set the most appropriate key field.

Show evidence of the table structure and contents in your evidence document. [7]

- 9 The *Employees.Office\_Code* field must contain 3 letters. Restrict the data entry for this field to any 3 letters. Include in your evidence document screenshots that show how you have restricted the data entry. [3]

- 10 The *Salaries.Pay\_Rate* field can only contain salaries between £7 000 and £100 000 inclusive. Make sure the database checks the data as it is entered and tells the user if there has been an invalid entry. Include in your evidence document screenshots that show how you have restricted the data entry and any text that is displayed to the user. [7]

- 11 Establish appropriate relationships to link the three tables to create a relational database.

Include in your evidence document screenshots that show the relationships between these tables. Make sure that there is evidence of the field names and type of each relationship you have created. [6]

*The Managing Director wants a list of all employees paid in Thai baht or US dollars.*

- 12 Extract and print a report which lists only the employee number, first name, family name, job description, pay grade, pay rate, office and currency of all employees paid in Thai baht or US dollars. Group this report into ascending order of office name. Sort each group into descending order of pay grade.

Add a suitable title to the report. Place your name, Centre number and candidate number in the header of the report. Print this report which must fit on a single page wide. [9]

- 13 For each of the 9 offices, calculate the average earnings of their employees. Sort this data into ascending order of office name. Apply appropriate formatting to the data and display only the office name and average earnings as a table in your evidence document. [13]

*The Managing Director wants to compare graphically the total salaries paid by each office.*

- 14 Create a graph or chart to display, for each of the 9 offices, the percentage of the total salaries paid to their employees.

Fully label this chart and include it in your evidence document. [6]

The Managing Director is considering closing two offices. He wants to compare the graph or chart created in step 14 with a new version.

- 15** Edit the chart created in step 14 to exclude the data for Male and Tawara. [3]  
Fully label this chart and include it in your evidence document.

The Managing Director wants to send all the technicians and tour guides on a course.

- 16** Create a database extract which lists only the employee number, first name, family name, job description, office, currency and pay rate of all employees with the word "Tour" or "Technician" in their job description. [6]  
Show evidence of your selection methods in your evidence document.

- 17** Export this extract into a spreadsheet and select only the employees where the final two digits of their employee number is less than 10. [7]  
Place copies of the extract showing the formulae and values in your evidence document, ensuring all columns are fully visible and the extract fits within a single page wide.

- 18** Insert 9 new rows at the top of your spreadsheet and copy the contents of the file **J14exchange.csv** into the top left corner of your spreadsheet. [2]

- 19** Name cells in the range A2 to B8 **Exchange** [2]  
Show evidence of this in your evidence document.

Each of these employees is to receive a bonus which will be paid in the appropriate local currency.

- 20** Create a new column called **Bonus** [11]  
Calculate a 10% bonus for each of these employees, using the named range *Exchange*.  
Apply appropriate formatting to these cells.  
Place copies of the extract showing the formulae and values in your evidence document, ensuring all columns are fully visible and the extract fits within a single page wide.

- 21** Save and print your evidence document.

**Write today's date in the box below.**

Date