

Cambridge  
International  
AS & A Level

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

CANDIDATE  
NAME

CENTRE  
NUMBER

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CANDIDATE  
NUMBER

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**APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY**

**9713/02**

Paper 2 Practical Test

**October/November 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 for the University of Tawara and are going to create a database to analyse data about student courses and accommodation.

Dates are to be stored in dd/mm/yyyy format.

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 Examine the data in the files:

**N14courses.csv**

**N14halls.csv**

**N14quals.csv**

**N14students.csv**

Create a new database and import these files.

Some field names, key fields and data types are shown below. Where they are not given, choose your own using the same naming conventions as shown.

Use this information to help you create the tables:

[31]

	<b>Students</b>			<b>Courses</b>	
	<b>Field name</b>	<b>Type</b>		<b>Field name</b>	<b>Type</b>
🔑	Student_ID			Faculty	Alphanumeric
	Student_Type			Code	
		Alphanumeric		Award	
	Family_Name			Full_Time	
	Accom			Course_Title	
	Telephone				
	Birth_Date				
	Course_Code			<b>Halls</b>	
	Tutor_Code			<b>Field name</b>	<b>Type</b>
				Accom	
				Residence	
	<b>Qualifications</b>			Address_1	
	<b>Field name</b>	<b>Type</b>			Alphanumeric
	Code				
	Qualification			Zip_Code	
🔑 denotes primary key					

- 3 Include in your evidence document screenshots that show the structure of the four tables showing all of the field names, data types and key fields.
- 4 Establish appropriate relationships to link the four 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 each relationship type. [9]
- 5 The *Students.Student\_Type* field contains codes to show where the student is from and how their University course is to be funded. The possible categories are:

Student_Type	Meaning
O	Overseas students paying for themselves
IG	Indigenous (local) students funded by a grant
IP	Indigenous (local) students paying for themselves
H	Honorary students where no fee is payable

- Only these values are allowed within this field. Make sure that the database checks this data as it is entered, not allowing invalid entries and informs the user if this has occurred. [6]
- 6 The University will not accept students born after the 31<sup>st</sup> August 1993. Make sure that the database checks this data as it is entered, not allowing invalid entries and informs the user if this has occurred. [6]
- 7 Include in your evidence document screenshots that show clearly how you have restricted the data entry in steps 5 and 6 and any text displayed to the user.
- 8 Save and print your evidence document.
- 9 Create a new document named:  
CentreNumber\_CandidateNumber\_Testing  
e.g. ZZ999\_99\_Testing
- 10 Set the page size to A4 and the orientation to landscape. Set all margins to 3 centimetres. [3]
- 11 Place an automated filename with the full file path on the left in the header. Make sure the header aligns to the left margin of the page. [1]
- 12 Place your name, Centre number and candidate number on the right in the footer. Make sure the footer aligns to the right margin of the page. [1]
- 13 Enter the text **Validation testing** as a heading in a bold, 36 point, centre aligned serif font. [3]
- 14 Below the heading create the following test table. [5]

Fieldname	<i>Students.Student_Type</i>		
Test type			
Data chosen	Type of data	Expected outcome	Actual outcome
IG			

- 15** Complete this test table for the validation rule you set in the *Students.Student\_Type* field.  
If the actual outcome of the test is an error message, take a screen shot of the message and place it in the correct cell of the table. [10]
- 16** Create and complete another test table to test your second validation rule. Use a similar table structure with consistent formatting. If the actual outcome of the test is an error message, take a screen shot of the message and place it in the correct cell of the table. [17]
- 17** Save and print this document.
- 18** Most students in the university live in a hall of residence. All rooms in the halls of residence called Eaves Hall, Surfers Lodge, White Knights and Dilbridge II are going to have new carpets fitted. Students living in these halls will need to be contacted.  
Create a report which lists the names of these students as well as the name, full address and zip code of the hall of residence. This list must be grouped by the name of the hall of residence. Ensure the full address and zip code are also displayed in the group header.  
Add a suitable title to the report. Ensure that your name, Centre number and candidate number are added to the header of the report. Print this report so that it fits on a single page wide. [7]
- 19** The new carpets will be fitted in the summer break where rooms are empty. All students are on holiday except for those in the Construction Faculty, those studying Archaeology or those studying for a Masters degree.  
Refine the report to include only the students who are on holiday. Your report should include fields that show details of these students and also their course, faculty and qualification.  
Print your report. [6]
- 20** Examine the contents of the Halls table.  
Extract from all the data only the information relating to students who live in the halls of residence within the University of Tawara. Create a new report that counts how many students from each Faculty are in each Hall. Do not include any totals in this report.  
Add a suitable title to the report. Place your name, Centre number and candidate number in the header of the report. Print the report on a single page. [15]

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

Date



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