



Oxford Cambridge and RSA

**Tuesday 10 January 2017 – Morning**

**LEVEL 1/2 CAMBRIDGE NATIONAL IN ICT**

**R001/01 Understanding Computer Systems**



Candidates answer on the Question Paper.

**OCR supplied materials:**

- Clean Copy of the Pre-release Case Study (R001/01 – Inserted)

**Other materials required:**

None

**Duration: 1 hour**



Candidate forename		Candidate surname	
--------------------	--	-------------------	--

Centre number						Candidate number			
---------------	--	--	--	--	--	------------------	--	--	--

**INSTRUCTIONS TO CANDIDATES**

- The Case Study Insert can be found inside this document.
- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Do **not** write in the bar codes.

**INFORMATION FOR CANDIDATES**

- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is **60**.
- This document consists of **12** pages. Any blank pages are indicated.

Answer **all** questions.

### SECTION A

**The questions in this section are based on Scenario 1 in the case study and your background research.**

1 The restaurant has a new menu every week.

(a) Identify **one** output device that can be used to create a hard copy of this menu.

..... [1]

The menu includes images of the meals.

(b) Identify **one** input device that could be used to capture these images.

..... [1]

(c) Explain the benefits of having colour images rather than black and white images in the menu.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

[4]

2 The restaurant's ordering system has tablet computers connected to its network. Customers can use these tablets to place their orders for meals.

(a) Identify the **most** suitable method by which the tablet could connect to the restaurant's network.

..... [1]

(b) Explain **one** advantage to the restaurant of using this ordering system to take orders.

.....  
.....  
.....  
..... [2]

(c) Explain **one** disadvantage of using this ordering system to place orders.

.....  
.....  
.....  
..... [2]

(d) Orders are sent to an output device in the kitchen.

(i) Identify **one** output device that would be suitable for use in the kitchen to display orders.

..... [1]

(ii) Explain **one** feature of this device that makes it suitable for this purpose.

.....  
.....  
.....  
..... [2]

3 The restaurant has an online form that customers can use to book tables.

When booking a table, the customer must provide a contact telephone number.

(a) Identify **two** input devices that could be used to enter a telephone number into an online form.

1.....

2.....

[2]

(b) The online form includes questions about the customer's name, the number of people in the party and the time at which they want to arrive.

Explain why the form includes these questions.

[4]

(c) Another question that the restaurant could include on the form is to ask for the date of birth of the person making the booking.

Explain why this question is **not** suitable to include on the form.

[2]

[2]

(d) (i) Identify **one** further question that would be appropriate to use on the form.

[1]

[1]

(ii) Give **one** reason why this question is appropriate.

[1]

[1]

4 The restaurant provides a free downloadable app that customers can use to pay their bill at the end of the meal.

Explain how the needs of the restaurant and the need for data security may have affected the decision to provide customers with an app to pay their bill.

. [8]

## SECTION B

**The questions in this section are based on Scenario 2 in the case study and your background research.**

5 The restaurant holds a themed party every month. The manager of the restaurant wants to create a flyer to promote this month's party.

(a) Identify the **most** appropriate type of applications software that would be used to create this flyer.

..... [1]

(b) Other than the ability to add images, identify **three** features of this software that can be used to create an effective flyer.

1.....

.....

2.....

.....

3.....

.....

[3]

The restaurant would like to include graphics on the flyer and has been searching for suitable graphics that have a creative commons licence.

(c) Describe what is meant by a 'creative commons licence'.

.....

.....

.....

.....

[2]

(d) Explain **two** reasons why the restaurant may want to use graphics that have a creative commons licence.

1.....

.....

.....

.....

.....

.....

.....

[4]

6 Bookings for the evening are stored in a database. The database includes validation rules.

A selection from the database is shown in **Fig. 1**.

Booking_reference	Name	Street	Postcode	Email_address	Date_of_booking	Time_of_booking	Number_of_people
17	George	Argyle St	AN7 6TY	george@home mail.com	1/2/17	19:30	4
218	Sue	Fleet St	AN4 6HY	SUE@Grumbl email.com	1/2/17	19:30	6
319	Jane	Ashgrove	AN2 4GT	Jane.Hughes @Forts.co.uk	1/2/17	20:00	3

Fig. 1

**(a) (i)** A format check is one type of validation.

Identify **one** item of data on the form that could be validated by a format check.

[1]

(ii) Describe how the format check identifies invalid data on the form and informs the user of the presence of invalid data.

(b) Describe **one** further type of validation that could be used on the form.

[2]

7 Due to an unexpected staff absence at the start of the evening, the manager has to contact staff to ask if they are available to work the extra hours. She must choose from staff that she already employs.

(a) Compare the use of email and face-to-face communication as methods that could be used to ask staff if they are available.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

[4]

(b) Describe **one** other suitable communication method that the manager could use to ask staff if they are available to work the extra hours.

.....  
.....  
.....  
.....  
.....

[2]

10

8 Individual tickets for the evening will each have a barcode.

(a) Describe how a barcode reader reads the information included in a barcode on the ticket.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

[4]

(b) Identify **one** other item that could be included on the ticket to increase the chance of forged tickets being identified by door staff.

.....

[1]

**END OF QUESTION PAPER**

**PLEASE DO NOT WRITE ON THIS PAGE**

**PLEASE DO NOT WRITE ON THIS PAGE**



Oxford Cambridge and RSA

**Copyright Information**

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website ([www.ocr.org.uk](http://www.ocr.org.uk)) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact the Copyright Team, First Floor, 9 Hills Road, Cambridge CB2 1GE.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.