

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

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

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GENERAL CERTIFICATE OF SECONDARY EDUCATION**

2359/02

**INFORMATION AND COMMUNICATION
TECHNOLOGY**

Paper 3 (Higher Tier)

THURSDAY 16 JUNE 2011: Afternoon

DURATION: 1 hour 15 minutes

SUITABLE FOR VISUALLY IMPAIRED CANDIDATES

Candidates answer on the question paper.

OCR SUPPLIED MATERIALS:

None

OTHER MATERIALS REQUIRED:

None

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

- **Write your name, centre number and candidate number in the boxes on the first page. Please write clearly and in capital letters.**
- **Use black ink. Pencil may be used for graphs and diagrams only.**
- **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).**
- **Answer ALL the questions.**

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.**

- 1 **Data is often encrypted before it is transferred across the internet.**
Tick whether each of the following statements about encryption is true or false.

	TRUE (✓)	FALSE (✓)
Data is encrypted to prevent viruses		
Encryption prevents hackers from deleting the data		
Encryption requires a key to decrypt the data		
Encryption scrambles the data so that it cannot be understood		

[4]

2 Name and describe TWO of the main features of a Graphical User Interface (GUI).

1 _____

2 _____

_____ [4]

3 Other than unemployment, identify TWO changes in employment patterns for bank workers due to the introduction of home banking.

1 _____

2 _____
_____ [2]

4 Organisations that collect personal data have a legal obligation to protect that data. Identify FOUR principles from the Data Protection Act which the organisations must follow.

1 _____

2 _____

3 _____

4 _____

_____ **[4]**

5 A company needs to update its computer system. A new system has been developed and tested. Name and describe THREE alternative strategies which could be used to implement the new system.

1 _____

2 _____

3 _____

_____ **[6]**

6 A group of car mechanics have asked a computer company to develop an expert system for them. Identify the stages in the development of this expert system.

[4]

7 Many supermarkets now have a website which allows customers to shop online.

(a) Describe the advantages of online shopping TO THE CUSTOMER.

[3]

(b) Describe the advantages of online shopping TO THE SUPERMARKET.

[3]

8 Banks make use of both batch processing and online processing.

Describe these types of processing, using examples of situations where each would be used in banking.

[6]

- 9 The table below shows some of the data from a flight booking database.
 Compare the effectiveness of different validation checks in trapping errors within the Customer booking reference field.

CUSTOMER BOOKING REFERENCE	FLIGHT CODE	BAGGAGE ALLOWANCE (kg)
3944173473	BA032	30
4765230981	SA234	20
2893729718	SU243	25
3512987256	EG117	25
9123754800	QA345	22

[6]

10 A supermarket is updating its computer system and will be replacing the checkout operators' POS terminals. The supermarket has employed a systems analyst to investigate the current system.

(a) Describe the DISADVANTAGES of the different methods the systems analyst could use to collect information about the existing system.

[6]

(b) Describe the advantages and disadvantages of the different input devices which could be used to input data about the supermarket goods.

[6]

11 A games software development company allows its employees to work from home and supplies all the hardware and software needed.

Discuss the advantages and disadvantages to the company of this arrangement.

[6]

BLANK PAGE



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) 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.