

OXFORD CAMBRIDGE AND RSA EXAMINATIONS

General Certificate of Secondary Education

INFORMATION AND COMMUNICATION TECHNOLOGY

PAPER 3 (HIGHER TIER)

Wednesday

7 JUNE 2006

Morning

1 hour 15 minutes

Candidates answer on the question paper. No additional materials are required

Candidate Name		
Centre	Candidate	
Centre Number	Number	

TIME 1 hour 15 minutes

INSTRUCTIONS TO CANDIDATES

- Write your name, Centre number and candidate number in the boxes above.
- Answer all the questions.
- Write your answers, in blue or black ink, in the spaces on the question paper.
- Do not write in the bar code. Do not write in the grey area between the pages.
- **DO NOT** WRITE IN THE AREA **OUTSIDE** THE BOX BORDERING EACH PAGE. ANY WRITING IN THIS AREA WILL NOT BE MARKED.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [] at the end of each question or part question.
- No marks will be awarded for using brand names of software packages or hardware.
- The total number of marks for this paper is **60**.

FOR EXAMINER'S USE				
Question No.	Max. Mark	Mark		
1	2			
2	2			
3	2			
4	6			
5	9			
6	5			
7	4			
8	6			
9	6			
10	6			
11	4			
12	8			
TOTAL	60			

This question paper consists of 7 printed pages and 1 blank page.

Answer all questions.

1	The Police National Computer (PNC) holds data about criminals and crimes. The police archive some of the data.
	Describe what the term archive means.
	[2]
2	Explain why an aeroplane flying on autopilot uses real-time processing rather than batch processing.
	[2]
3	Give two actions that are illegal under the Computer Misuse Act.
	Action 1
	Action 2
	[2]

4 When creating a computer system it has to be analysed, designed, developed, tested and implemented.

Tick one box in each row that best describes the stage when each step would take place.

Step	Analysing (✓)	Designing (√)	Developing, Testing and Implementing (✓)
Check the system gives the required output.			
Create the data and file structures.			
Describe any validation required.			
Draw diagrams to describe the system processing.			
Interview future users about their requirements.			
Specify suitable hardware and software.			

5

[6] Many garden centres grow tropical plants in greenhouses with computer-controlled environmental systems. (a) State four pieces of hardware, other than a computer, that would be necessary in this system. 2. 4.[4] **(b)** Describe how a computer system can control the environment in a greenhouse.

[Turn over

A supermarket uses Electronic Funds Transfer (EFT) to accept payment.

	(a)	At the checkout, a customer uses a bank card to pay for goods.
		Describe the steps that occur after the card is handed to the cashier.
		[4]
	(b)	Give one advantage to the supermarket of using EFT instead of accepting cheques for payment of goods.
		[1]
7	LAN	Is and WANs are different types of network.
	Des	scribe the features of these two types of network.
	LAN	٧
		[2]
	WA	N
		[2]

Give the steps necessary to create and use this expert system.
[6

9 A cinema is to use a computer booking system. Part of the system will accept bookings for up to 6 seats. A table of test data is drawn up to test this part of the system.

Complete the table below. The first one has been done for you.

TEST DATA TABLE (Number of seats – Maximum=6, Minimum=1)			
Type of data	Example	Expected result	
Extreme	1	1 Accept	
Normal		Accept	
	4	Accept	
Extreme			
	Any number greater than 6	Reject	
Abnormal		Reject	

10	A new ICT system has been developed for a library. When the system has been installed it is evaluated.
	Explain the tasks that would be carried out as part of this evaluation.
	[6]
11	A flight simulator is developed as a game for home computers.
	Explain why some features of the actual simulator are omitted from the game.
	[4]

used to catch	criminais.		
Discuss this st	atement.		
	••••	 	

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