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Centre number						Candidate number				
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**OXFORD CAMBRIDGE AND RSA EXAMINATIONS  
GENERAL CERTIFICATE OF SECONDARY EDUCATION**

**2359/01**

**INFORMATION AND COMMUNICATION  
TECHNOLOGY**

**Paper 3 (Foundation Tier)**

**TUESDAY 18 JANUARY 2011: Morning**

**DURATION: 1 hour**

**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 Circle TWO input devices from the list of 6 below. [2]**

**DVD drive**

**Graphics tablet**

**Magnetic stripe reader**

**Plotter**

**Printer**

**Speaker**

**2 Tick whether the following statements are true or false. [5]**

<b>TRUE</b> (✓)	<b>FALSE</b> (✓)	
		<b>A DTP package is used to manage personal finance</b>
		<b>A spreadsheet is used to produce a newspaper</b>
		<b>A web browser is used to view pages on the internet</b>
		<b>Measuring equipment is used to monitor temperature in a science experiment</b>
		<b>Presentation software is used to search stock records in a supermarket</b>

**3 Complete each sentence below using ONE item from this list of 4. [4]**

**A bar code reader**

**A menu**

**MICR**

**OMR**

\_\_\_\_\_ is a system that is able to input pencil marks as data into a computer.

\_\_\_\_\_ is used in supermarkets to input data from a cereal packet.

\_\_\_\_\_ is used to input data from a bank cheque.

\_\_\_\_\_ is an important part of a Graphical User Interface (GUI).

- 4 A new system is to be created for a company. Tick whether the following take place during the Implementation phase or the Evaluation phase. [4]

	IMPLEMENTATION (✓)	EVALUATION (✓)
Comparing the solution with the original design		
Direct changeover		
Identifying the good and bad points of the final system		
Parallel running		

**5 Tick THREE applications which use batch processing.** [3]

✓	
	<b>A bank cheque clearing system</b>
	<b>A computerised airline booking system</b>
	<b>Processing gas bills</b>
	<b>Purchasing an item on the internet using a bank card</b>
	<b>Scanning a set of OMR test answer sheets</b>
	<b>The use of robots on a car production line</b>

**6 A company network manager needs to increase the security of data.**

**(a) Tick THREE pieces of advice the network manager would give company employees. [3]**

✓	
	<b>Always write your password down so you will remember it</b>
	<b>Make sure you always log off at the end of a session</b>
	<b>Tell a colleague what your password is in case you forget it</b>
	<b>Use a combination of numbers and letters for your password</b>
	<b>Use a password which is hard for other employees to guess</b>
	<b>Use the name of the street you live in for your password</b>

**(b) The network manager uses a number of methods to reduce security risks.**

**Draw FIVE lines to match each method below to the risk it reduces.**

**[5]**

<b>METHOD</b>
<b>Backup</b>
<b>Encryption</b>
<b>Firewall</b>
<b>Passwords</b>
<b>Validation</b>

<b>REDUCED RISK OF:</b>
<b>Individuals accessing other users' data in a LAN</b>
<b>Losing data</b>
<b>Unreasonable data being entered</b>
<b>Users being able to understand data they may have accessed illegally</b>
<b>Unauthorised access to the company network from the internet</b>



**7 The table shows a number of statements about internal memory.**

**Tick ONE box in each row to show whether the following statements refer to RAM or ROM.**

**[4]**

<b>RAM (✓)</b>	<b>ROM (✓)</b>	
		<b>Data can be changed</b>
		<b>Data is still there when the computer is switched off</b>
		<b>Stores the data being processed</b>
		<b>Stores the instructions a computer needs when booting up</b>

**8 A book is borrowed from a school library. The librarian asks the borrower to place their thumb against a thumbprint reader connected to a computer system.**

**(a) Describe how the computer system uses the thumbprint data. [2]**

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**(b) Give TWO alternative methods, other than typing or using thumbprints, which would be suitable for entering the details of the borrower. [2]**

**Method 1** \_\_\_\_\_

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**Method 2** \_\_\_\_\_

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**(c) Give TWO benefits of using thumbprints rather than other methods. [2]**

**Benefit 1** \_\_\_\_\_

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**Benefit 2** \_\_\_\_\_

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**9 Tick whether each of the following statements about verification is true or false. [4]**

<b>TRUE</b> (✓)	<b>FALSE</b> (✓)	
		<b>The double entry method requires the computer to compare the different versions</b>
		<b>Verification checks that data is copied correctly</b>
		<b>Verification makes sure that data is correct</b>
		<b>Visual checking requires the data on the screen to be read</b>

**10 A large organisation which manufactures cars on a production line uses robots to perform certain tasks.**

**(a) Give THREE benefits to the organisation of using robots. [3]**

**1** \_\_\_\_\_

\_\_\_\_\_

**2** \_\_\_\_\_

\_\_\_\_\_

**3** \_\_\_\_\_

\_\_\_\_\_

**(b) Give THREE drawbacks of using robots. [3]**

**1** \_\_\_\_\_

\_\_\_\_\_

**2** \_\_\_\_\_

\_\_\_\_\_

**3** \_\_\_\_\_

\_\_\_\_\_

**11 Tick whether the following statements are true of star networks or ring networks. [4]**

<b>STAR (✓)</b>	<b>RING (✓)</b>	
		<b>Each computer is directly connected to two other computers</b>
		<b>If one computer fails the whole network crashes</b>
		<b>The network uses more cabling</b>
		<b>There is less disruption to the network when adding another computer</b>

**12 Before creating a database the file structure has to be designed. The design may include codes to be used in certain fields.**

**Explain why data is coded.**

**[4]**

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**13 (a) A computer system is used to control the growing conditions in a greenhouse.**

**Name TWO sensors that will be needed in this system. [2]**

**1** \_\_\_\_\_

**2** \_\_\_\_\_

**(b) For ONE of these sensors describe how the computer will use feedback to control the growing conditions. [4]**

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