

<b>Candidate Forename</b>		<b>Candidate Surname</b>	
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<b>Centre Number</b>						<b>Candidate Number</b>				
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**OXFORD CAMBRIDGE AND RSA EXAMINATIONS  
GENERAL CERTIFICATE OF SECONDARY EDUCATION**

**2380/01**

**INFORMATION AND  
COMMUNICATION TECHNOLOGY**

**ICT B  
(Foundation Tier)**

**TUESDAY 19 JANUARY 2010: Morning**

**DURATION: 1 hour**

**SUITABLE FOR VISUALLY IMPAIRED CANDIDATES**

**Candidates answer on the Question Paper**

**OCR SUPPLIED MATERIALS:**

**Insert 2380/1/&2/PRE (inserted)**

**OTHER MATERIALS REQUIRED:**

**Flowchart stencil**

**Candidates pre-prepared materials**

**READ INSTRUCTIONS OVERLEAF**

## **INSTRUCTIONS TO CANDIDATES**

- **Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes on the front page.**
- **Use black ink. Pencil may be used for graphs and diagrams only.**
- **Read each question carefully and make sure that you know what you have to do before starting your answer.**
- **Answer ALL the questions.**
- **Write your answer to each question in the space provided, however additional paper may be used if necessary.**

## **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 55.**
- **No marks will be awarded for using brand names of software packages or hardware.**

- 1 Each device in the table below is either an input, output or storage device.

For EACH put a tick in the correct box.

<b>DEVICE</b>	<b>INPUT</b>	<b>OUTPUT</b>	<b>STORAGE</b>
<b>CD drive</b>			
<b>Digital camera</b>			
<b>Graphics tablet</b>			
<b>Inkjet printer</b>			
<b>Laser printer</b>			
<b>Plotter</b>			
<b>Scanner</b>			
<b>Speakers</b>			

[8]

**2 The network at EnviroMax is a LAN.**

**(a) State TWO advantages and ONE DISADVANTAGE of connecting computers together in a LAN rather than using standalone machines.**

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

\_\_\_\_\_

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

\_\_\_\_\_

**Disadvantage** \_\_\_\_\_

\_\_\_\_\_ **[3]**

**(b) The other type of network used by companies is a WAN.**

**Describe the differences between a LAN and a WAN.**

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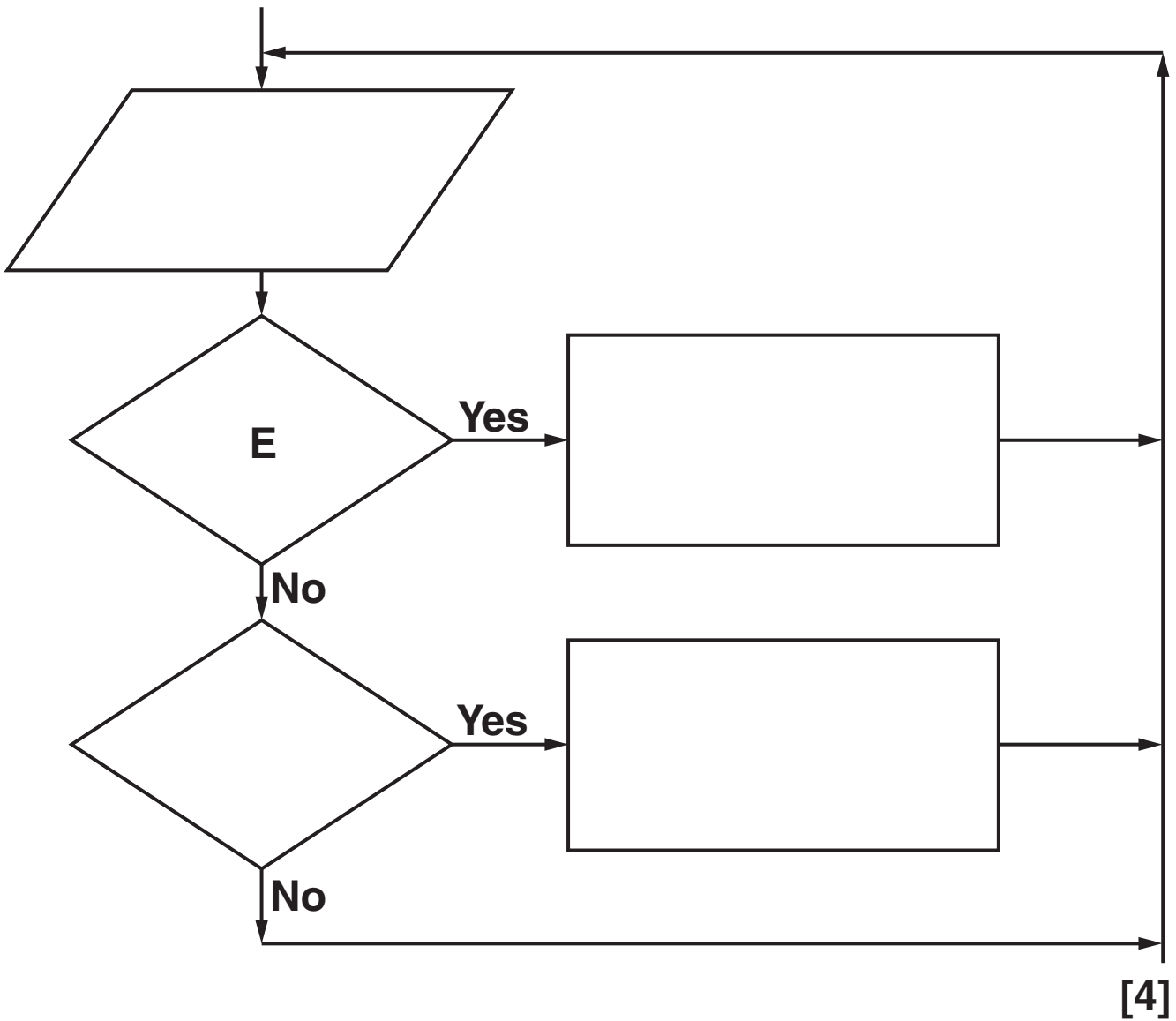
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**[4]**

**3 EnviroMax advises companies to use a control system with feedback to maintain a temperature of 21 °C in each room of an office.**

**(a) The flowchart opposite needs to show how the system would work. Use the table to identify the statement that should go in each box and label each box with the appropriate letter. You do NOT have to use every statement.**

<b>A</b>	<b>Turn off the heater</b>
<b>B</b>	<b>Turn on the heater</b>
<b>C</b>	<b>Disconnect the heating</b>
<b>D</b>	<b>Turn up the thermostat</b>
<b>E</b>	<b>Is the temperature greater than 21 °C?</b>
<b>F</b>	<b>Is the temperature less than 21 °C?</b>
<b>G</b>	<b>Turn down the thermostat</b>
<b>H</b>	<b>Print the temperature of the room</b>
<b>I</b>	<b>Read the temperature</b>



**(b) (i) Identify the device that would be needed to read the temperature in the room.**

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[1]

**(ii) Explain why the central heating system needs such a device in each room.**

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[2]

**4 EnviroMax uses a wide range of methods to allow companies to communicate with each other.**

**Explain THREE benefits that these COMPANIES could gain using electronic communication.**

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

\_\_\_\_\_

\_\_\_\_\_

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

\_\_\_\_\_

\_\_\_\_\_

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

\_\_\_\_\_

\_\_\_\_\_ [6]



**5 State the type of software that you would recommend for each of the tasks shown in the table below.**

**You should state the TYPE of software that would perform the task most efficiently.**

**DO NOT use brand names.**

<b>TASK</b>	<b>TYPE OF SOFTWARE</b>
<b>to calculate the cost of customer purchases</b>	
<b>to develop a web blog</b>	
<b>to model numeric data</b>	
<b>to produce a folded health and safety leaflet</b>	
<b>to record and search for customer details</b>	
<b>to write a letter to a customer</b>	

**[6]**

**6 EnviroMax needs to comply with the requirements of The Data Protection Act.**

Tick THREE statements that are true about the act.

<b>STATEMENT</b>	<b>Tick THREE boxes only</b>
<b>Personal data must be processed fairly and lawfully.</b>	
<b>Personal data can be passed to other organisations without the consent of the data subject.</b>	
<b>Personal data should be accurate and up to date.</b>	
<b>Data can be used for any purpose.</b>	
<b>Suitable measures must be taken to ensure the safety of personal data.</b>	
<b>Data should be the minimum required for the purpose and can be kept indefinitely.</b>	

[3]

**7 Staff at EnviroMax scan images into the computer.**

**Describe the two file formats shown.**

**Bit-mapped**

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**Vector**

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**[4]**

**8 EnviroMax use data validation and verification.**

**(a) Which TWO of the following is a method of data validation?**

	<b>Tick TWO boxes only</b>
<b>Space check</b>	
<b>Presence check</b>	
<b>Drop down menu</b>	
<b>Range check</b>	

**[2]**

**(b) Draw a line to match the statement to the term.**

<b>Verification</b>	<b>checking of data at the time of input – check carried out by the software to make sure the data is reasonable.</b>
<b>Validation</b>	<b>collection of data over a period of time, followed later by processing.</b>
<b>Batch processing</b>	<b>checking that data entered into a computer system is accurate.</b>

**[3]**

- 9 You have been asked to help design a website for EnviroMax. The website aims to raise awareness of ways home users could reduce the environmental impact of their ICT use.**

**Design the structure of the website showing links between a minimum of four and maximum of eight pages. You DO NOT need to design the pages themselves. You may use a separate sheet of larger paper if you wish, but if you do, be sure to write the question number on it.**

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