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|-------------------------------|--|------------------------------|--|
| <b>Candidate<br/>forename</b> |  | <b>Candidate<br/>surname</b> |  |
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| <b>Centre<br/>number</b> |  |  |  |  |  | <b>Candidate<br/>number</b> |  |  |  |  |
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**OXFORD CAMBRIDGE AND RSA EXAMINATIONS  
GENERAL CERTIFICATE OF SECONDARY EDUCATION**

**2380/02**

**INFORMATION AND COMMUNICATION  
TECHNOLOGY**

**ICT B (Higher Tier)**

**THURSDAY 16 JUNE 2011: Afternoon**

**DURATION: 1 hour 30 minutes**

**SUITABLE FOR VISUALLY IMPAIRED CANDIDATES**

**Candidates answer on the question paper.**

**OCR SUPPLIED MATERIALS:**

**Insert 2380/02/PRE (inserted)**

**OTHER MATERIALS REQUIRED:**

**Flowchart stencil**

**Candidates pre-prepared materials**

**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 80.**
- **No marks will be awarded for using brand names of software packages or hardware.**

**1 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.**

**You may give the same answer for more than one task.**

**Do NOT use brand names.**

| <b>TASK</b>   | <b>TYPE OF SOFTWARE</b> |
|---|-------------------------|
| <b>To access a newsfeed</b>                               |                         |
| <b>To create a folded leaflet</b>                         |                         |
| <b>To develop a website</b>                               |                         |
| <b>To model numerical data on environmental emissions</b> |                         |
| <b>To send a SMS text message from a desktop computer</b> |                         |
| <b>To store membership data</b>                           |                         |

**[6]**

**2 'Our Future' uses a digital application form. One of the users accidentally copies an older version of the database over the newest version.**

**Explain TWO methods that could be used to reduce the effect of this human error and prevent the error happening again.**

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**[4]**

**3 'Our Future' communicates with its members using a desktop computer.**

**(a) Compare the advantages of email with instant messaging (IM).**

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**[4]**



**BLANK PAGE**

**TURN OVER FOR QUESTION 4**

- 4 (a) Under each of the headings below describe how 'Our Future' members can use mobile phones to gather and share information between its members when working in different locations.

You must state why the particular function would be beneficial to 'Our Future'.

**Built in cameras**

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[3]

**Email**

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[3]



## SMS

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[2]

## Mobile internet

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[2]

**(b) One of the members of 'Our Future' decides to walk across India to raise the profile of environmental issues.**

**Give FOUR pieces of specialist ICT equipment, other than mobile phones, that could assist this member during the walk.**

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

4 \_\_\_\_\_ [4]

**5 'Our Future' has asked you to redesign the structure of their website. The list below shows seven of the many pages currently available.**

**Existing pages:**

- **Welcome page**
  - ▶ **Join Us**
  - ▶ **Pollution**
    - **Hazardous Waste**
  - ▶ **Contact us page**
  - ▶ **The Ozone page**
    - **Melting Icecaps**

**Draw a diagram on the next page to show an appropriate structure for the website. You should also add TWO extra useful pages of your own.**

**Marks will be awarded for:**

- **a clear structure for the website**
- **inclusion of all the pages listed**
- **clarity of the links between pages**
- **addition of the two further useful pages.**

**Do NOT design the pages themselves.**



**6 The right hand column of boxes below shows a variety of methods of data capture.**

**Draw lines to match each statement in the left hand column of boxes to the most suitable data capture method in the right hand column.**

**Used to input feedback to multiple-choice questions. Users put a simple mark in the box next to the chosen answer.**

**Used by banks to input cheque details.**

**Used to collect information from the public about planned changes to the local road network.**

**Used to input information from a credit card when paying for petrol at a garage.**

**Used to gather weather data remotely.**

**Used to input information from a chemical container with a small label marked with a series of lines.**

**Data logging**

**Bar code reader**

**Answers**

**Microchip reader**

**MICR**

**OCR**

**OMR**

**Questionnaires**

**Sensors**

7 'Our Future' runs a social networking site. New users need to register on the site.

(a) Before the new user can enter the registration screen they are given the following screen with a code to enter.

*AW46Z3*

Why is this code written in this way?

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[2]

**Accounts require a password. It is important that they ensure that accounts are secure.**

**(b) Which ONE of these four passwords A–D is the most secure? Give reasons for your choice.**

**A Wednesday**

**B My-password**

**C HJK897E**

**D HjK897-e**

**Password chosen: \_\_\_\_\_**

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**[3]**

- (c) After choosing a password the following screen appears.

**Enter your passphrase:**

**Confirm your passphrase:**

**Passphrases should be at least  
16 characters in length**

- (i) Explain the reason for a passphrase stating why it needs to be at least 16 characters in length.

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[3]

**(ii) Why is the new user asked to enter the passphrase twice?**

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**[2]**

**(iii) At the bottom of the screen is a bar stating 'passphrase quality'.**

**Passphrase Quality:**  %

**What does this indicate?**

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**[1]**



**The user is also asked to select a secret question and provide an answer to it.**

**Select a question:**

**What is your favourite colour?**

**What is the name of the first school you attended?**

**What is your favourite sport?**

**What is your mother's maiden name?**

**(d) Explain why new users are asked to do this.**

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**[2]**

**'Our Future' then sends the user a confirmation email asking them to activate their account.**

**(e) Give ONE reason for this.**

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**[1]**

**As an additional security measure 'Our Future' asks the user for a mobile telephone number. An automated code is sent by text to their phone. The user must then enter this into the activation screen.**

**(f) Explain why this additional information is required.**

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**[3]**

**8 Some members of 'Our Future' cannot use VoIP even though they have computers at home.**

**Give ONE possible reason for this.**

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[1]



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[6]

**10 “The developments in mobile communication systems promote anti-social behaviour due to misinformation.” Discuss this statement with reference to specific developments in ICT. Marks will be awarded for the use of correct technical terms.**

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