



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

CANDIDATE  
NAME

CENTRE  
NUMBER

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**INFORMATION AND COMMUNICATION TECHNOLOGY**

**0417/21**

Paper 2 Practical Test

**May/June 2013**

**2 hours 30 minutes**

Additional Materials: Candidate Source Files

**READ THESE INSTRUCTIONS FIRST**

Make sure that your **Centre number**, **candidate number** and **name** are written at the top of this page and are clearly visible on every printout, before it is sent to the printer. Printouts with handwritten information will **not** be marked.

DO **NOT** WRITE IN ANY BARCODES.

Carry out **every** instruction in each step.

Steps are numbered on the left hand side of the page. On the right hand side of the page for each step, you will find a box which you can tick (✓) when you have completed it; this will help you track your progress through the test.

At the end of the exam put this **Question Paper** and **all** your printouts into the Assessment Record Folder.

If you have produced rough copies of printouts, these should be neatly crossed through to indicate that they are **not** the copy to be marked.

This document consists of **8** printed pages.



You work for a company called Hothouse Renewable Energy. You are going to perform a task for this company.

1 Open the file **JX3EVIDENCE.RTF**

Make sure that your name, Centre number and candidate number will appear on every page of this document.

Save this evidence document in your work area as **JX3EVIDENCE** followed by your candidate number. For example: JX3EVIDENCE9999

You will need this file later.

2 Add the following contact details to your email contacts/address book:

FULL NAME	EMAIL ADDRESS
Abdul Amar	a.amar@cie.org.uk
Hussain Syed	h.syed@cie.org.uk
Oliver Johnson	o.johnson@cie.org.uk

Place screenshot evidence of only these entries in your evidence document.

3 Create an email group/distribution list named **Energy Team**

Add the three contacts entered at step 2 to this group. Save the group.

Place screenshot evidence of the group and the three contacts that belong to this group in your evidence document.

You will send a message to this group later.

You are now going to edit a report about offshore wind power.

4 Using a suitable software package, load the file **JX3WINDFARMS.RTF**

5 Set the:

- page size to A4

Place screenshot evidence of your page size settings in your evidence document.

- orientation to landscape
- top and bottom margins to 2 centimetres
- left and right margins to 2.5 centimetres.

Place screenshot evidence of your margin and page orientation settings in your evidence document.

6 Save the document, with a new name, in your work area.

7 Place in the header:

- your Centre number left aligned
- the automated file name right aligned.

Place in the footer:

- today's date left aligned
- your name and candidate number right aligned.

Make sure that all the alignments match the page margins.

Make sure that headers and footers are displayed on all pages.

- 8 At the start of the document enter the title **Offshore Wind Energy**
- 9 Make the title:
- centre aligned
  - font size **26** point
  - bold and underlined
- 10 Below the title, add a subtitle:   
**Report by:** and add your name.
- 11 Set the title and subtitle to a sans-serif font.
- 12 Make the subtitle:
- right aligned
  - font size **18** point
  - italic and bold
- 13 After the subtitle format the rest of the document as body text into three equally spaced columns, with **1.5** centimetre spacing between the columns.
- 14 Set all of the body text to:
- be fully justified
  - font size **12** point
  - a serif font
  - **single** line spacing
- 15 Make sure there is a single blank line after each paragraph of the body text.
- 16 In the left column, before the first paragraph of the document, enter the subheading:   
**A Global Power Source**
- 17 Identify all the subheadings in the document and make them all:
- centre aligned
  - bold
  - underlined
  - sans-serif
  - **14** point
- Make sure there is one line space below each subheading.
- 18 Insert a table with two columns and eleven rows after the text: *The 9 European countries with offshore wind power capacity in 2010 were:*
- 19 Merge the cells in the top row of the table.

20 Enter the following data into the table:

Offshore wind power in Europe	
Country	Capacity (MW)
UK	1341
Denmark	854
Netherlands	249
Belgium	195
Sweden	164
Germany	92
Finland	26
Ireland	25
Norway	2.3

Make sure the table fits within the column, there is a single line space above and below the table and the text is formatted as body text.

21 Format only the text in the top row of the table to be:

- bold
- centre aligned

22 Apply light grey shading (20 – 40%) to only the top two rows of the table.

23 Find a clipart image of a wind turbine or windmill.

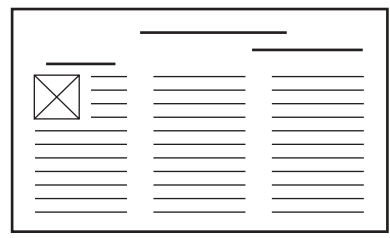
Re-size the image to a height of **3.5 cm** and maintain the aspect ratio.

Place this image:

- on the first page
- below the subheading *A Global Power Source*
- aligned with the top of the first paragraph
- aligned to the left margin

Make sure the text wraps round the image.

It may look like this:



24 Apply square shaped bullets to the list of benefits from:

*Higher wind speeds...*

to

*...No noise impact*

25 Apply 1.5 line spacing to the bulleted list.

26 Save the document.

You are now going to prepare some reports for the company.

- 27 Using a suitable database package, import the file **JX3OFFSHORE.CSV**  
Use the following field names and data types:

NAME	DATA TYPE	FORMAT
<i>ID</i>	<b>Text</b>	
<i>Country</i>	<b>Text</b>	
<i>Number</i>	<b>Number</b>	Integer
<i>Name</i>	<b>Text</b>	
<i>Distance</i>	<b>Number</b>	1 decimal place
<i>Operational</i>	<b>Boolean/Logical</b>	Yes/No
<i>Capacity</i>	<b>Number</b>	Integer
<i>Depth</i>	<b>Number</b>	Integer
<i>Height</i>	<b>Number</b>	1 decimal place
<i>Diameter</i>	<b>Number</b>	Integer
<i>Sea</i>	<b>Text</b>	

- 28 Place a screenshot showing the field names and data types used into your evidence document.
- 29 Insert the following three records:

<i>ID</i>	<i>Country</i>	<i>Number</i>	<i>Name</i>	<i>Distance</i>	<i>Operational</i>	<i>Capacity</i>	<i>Depth</i>	<i>Height</i>	<i>Diameter</i>	<i>Sea</i>
<b>BE04</b>	<b>Belgium</b>	<b>36</b>	<b>Eldepasco</b>	<b>37.0</b>	<b>Yes</b>	<b>216</b>	<b>20</b>	<b>130.0</b>	<b>90</b>	<b>North Sea</b>
<b>IE01</b>	<b>Ireland</b>	<b>7</b>	<b>Arklow Bank</b>	<b>10.0</b>	<b>Yes</b>	<b>25</b>	<b>30</b>	<b>129.0</b>	<b>111</b>	<b>Irish Sea</b>
<b>NR01</b>	<b>Norway</b>	<b>1</b>	<b>Hywind</b>	<b>10.5</b>	<b>Yes</b>	<b>2</b>	<b>22</b>	<b>106.2</b>	<b>82</b>	<b>North Sea</b>

- 30 Check your data entry for errors.
- 31 Save the data.

- 32 Produce a report from all the data which:
- contains a new field called **Turbine\_Capacity** which is calculated at run-time. This field will calculate the *Capacity* divided by the *Number* of turbines
  - has the *Turbine\_Capacity* field displayed to 1 decimal place
  - shows only the records where the *Sea* is *North Sea* or *Irish Sea* and *Operational* is *Yes*
  - shows only the fields *Country*, *ID*, *Name*, *Number*, *Distance*, *Operational*, *Capacity*, *Height*, *Sea* and *Turbine\_Capacity* in this order with their labels in full
  - sorts the data into ascending order of *Country* and then ascending order of *Name*
  - fits on a single page wide
  - has a page orientation of landscape
  - calculates the total *Number* of turbines and places it at the bottom of the report
  - has a label to the left of this number **Total turbines in operation**
  - includes the heading **Power from North and Irish Seas** at the top of the page
  - has your name, Centre number and candidate number on the right in the footer.
- 33 Save and print this report.
- 34 Produce an extract from all the data which:
- selects only those locations
    - in the United Kingdom
    - in the North Sea
    - with a capacity of 90 or more megawatts (MW)
    - which are operational
  - shows only the fields *Name*, *Sea*, *Capacity* in this order
  - sorts the *Capacity* in descending order (largest to smallest)
- 35 Save this data in a form which can be imported into the document that you saved in step 26.
- 36 Import this data into your document as a table after the paragraph which ends: *Offshore wind farms in the UK producing 90 MW or more of power are:*
- Make sure that all required fields and their labels are fully visible and that there is one blank line above and one below the extract.
- 37 Spell-check and proof-read the document.
- Place page breaks, if necessary, to make sure that:
- tables do not overlap two columns or pages
  - bulleted lists do not overlap two columns or pages
  - there are no widows
  - there are no orphans
  - there are no blank pages.
- Make sure all formatting is consistent throughout your document.
- 38 Save the document.
- Print the document.

You are now going to create a short presentation.

- 39 Import the file **JX3PRES.RTF** placing the text as slides in your presentation software.  
Remove any blank slides.

(This should provide six slides, each containing a title and some bullet points.)

- 40 The master slide must have:
- a white background
  - the image **LOGO.JPG** placed in the top right corner; the height of the image should be 2.5 cm and the aspect ratio should be maintained
  - your Centre number, candidate number and name in a 10 point black serif font in the bottom right corner
  - automatic slide numbers in the bottom left corner
  - a horizontal black line, 3 points wide, across the slide below the image
  - the text **Renewable Energy** in a black **72** point serif font above the line, left aligned; make sure the text does not wrap.

No master slide elements, text or images should overlap on any slides.

Apply all master slide elements to all slides.

- 41 Insert a new slide before slide 1. Use a layout with a title and subtitle for the new slide.

- 42 Enter the text **Wind Power in Europe** as the title.

Enter the text **Progress since 1 January 2009** as a subtitle.

- 43 Delete the slide with the title *EUROPEAN TARGETS*.

- 44 Move the slide with the title *PRODUCTION* so that it becomes slide 3.

- 45 Create a vertical bar chart using the table in **JX3CAPACITY** to show the predicted growth in global wind power capacity between 2010 and 2015.

- 46 Label the chart with

- the title **Global Wind Power Capacity**
- category series labels displayed in full
- axis titles as **Region** and **Wind Power Capacity (MW)**

- 47 Place the chart to the left of the bullet points on the slide with the title *GROWTH PREDICTIONS*.

- 48 Save the presentation.

Print the presentation with six slides to the page.

Print the slide with the title *GROWTH PREDICTIONS* as a full slide.

- 49 Prepare an email message:
- to be sent to the group called **Energy Team** (from your address book)
  - copied to **design.h@cie.org.uk**
  - with the subject line **Offshore wind farms**

The body text of the message should include:

- your name
- your Centre number
- your candidate number
- the text: **The annual report is attached for your information.**

- 50 Attach to your email the document which you saved at step 38.
- 51 Take a screenshot of this email, showing clearly that the attachment is present, and place it in your evidence document.
- Send the email.
- 52 Save and print the evidence document.

**Write today's date in the box below.**

Date

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