MARK SCHEME for the May/June 2010 question paper
for the guidance of teachers

0417 INFORMATION AND COMMUNICATION TECHNOLOGY
0417/02 Paper 2 (Practical Test A), maximum raw mark 80

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners’ meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

- CIE will not enter into discussions or correspondence in connection with these mark schemes.

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Contact list
Address correctly added with name  2 marks

Field names identified  1 mark
Data types
- Size    numeric 1 dp
- Price   currency 2 dp
- Number  Integer  1 mark
- Stock item  yes/no  2 marks
Ignore ID field – or other key fields
## Kites for Beginners

<table>
<thead>
<tr>
<th>Make</th>
<th>Model</th>
<th>Size</th>
<th>Price</th>
<th>Skill level</th>
<th>Wind condition</th>
<th>Use</th>
<th>Number</th>
<th>Stock item</th>
<th>Value</th>
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<td>3.5</td>
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<td>Medium</td>
<td>Buggy / Land Board</td>
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<td>Buggy / Land Board</td>
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<td>€449.90</td>
</tr>
</tbody>
</table>

**Data and labels**: All fields fully visible - 1 mark
**Orientation**: Landscape - 1 mark
**One page wide**: 1 mark
**Data entry**: 3 records 100% accurate - 3 marks

**Value Calculated field**: Number x Price - 2 marks

**Format Value field currency 2 dp**: 1 mark

**Name, candidate number, Centre number**: Correctly entered and legible - 1 mark

**Footer**: Name on left - 1 mark

**Sum Total of Value**: 1 mark

**Format sum currency 2 dp**: 1 mark

**Label Current Value of Stock**: 1 mark

**Current Value of Stock**: €12,664.75
### Special offer on this kite
- Make: Ozone
- Model: Access XC
- Size: 4
- Price: 412.95
- Wind condition: High
- Name, candidate number, centre number

### Special offer on this kite
- Make: Ozone
- Model: Access XC
- Size: 6
- Price: 455.95
- Wind condition: Medium
- Name, candidate number, centre number

<table>
<thead>
<tr>
<th>Labels</th>
<th>2 side by side (selection produces 8 labels only)</th>
<th>1 mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heading</td>
<td>100% correct</td>
<td>1 mark</td>
</tr>
<tr>
<td>Search</td>
<td>Use contains Snowkite and Stock item is Yes</td>
<td>1 mark</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sort</th>
<th>Ascending Price</th>
<th>1 mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data</td>
<td>Only specified fields, each on new line and fully visible</td>
<td>2 marks</td>
</tr>
<tr>
<td></td>
<td>Field names printed, each on a new line and fully visible</td>
<td>1 mark</td>
</tr>
<tr>
<td>Text</td>
<td>Name and numbers at bottom of label</td>
<td>1 mark</td>
</tr>
</tbody>
</table>

### Special offer on this kite
- Make: Ozone
- Model: Access XC
- Size: 8
- Price: 498.95
- Wind condition: Medium
- Name, candidate number, centre number

### Special offer on this kite
- Make: Ozone
- Model: Access XC
- Size: 10
- Price: 520.95
- Wind condition: Low
- Name, candidate number, centre number

### Special offer on this kite
- Make: Ozone
- Model: Frenzy FX
- Size: 7
- Price: 635.95
- Wind condition: High
- Name, candidate number, centre number

### Special offer on this kite
- Make: Ozone
- Model: Frenzy FX
- Size: 11
- Price: 718.95
- Wind condition: Medium
- Name, candidate number, centre number

### Special offer on this kite
- Make: Ozone
- Model: Manta II
- Size: 10
- Price: 749.95
- Wind condition: Medium
- Name, candidate number, centre number

### Special offer on this kite
- Make: Ozone
- Model: Frenzy FX
- Size: 13
- Price: 754.95
- Wind condition: Low
- Name, candidate number, centre number
You may have tired of spending your holiday lying by the pool and have seen huge kites drifting over the sea and decide you would like the challenge of a new sport. You remember the little single string kites you flew on the beach when you were a child, but this seems to be a sport in a new dimension! These kites pull you over the sea and allow you to make huge jumps into the air. You decide to have a go and perhaps become hooked on the adrenaline rush of the world of modern power kites.

Over the last centuries kites held a fascination for scientists in their search for a means of transport using a “heavier than air” machine. Such flight was thought impossible, which seems strange now in our age of jet transport, but the development of the aerofoil shape of the kite wing led directly to an understanding of powered flight. Kites were used for scientific experiments, for rescue and had a role in war.

Kites again attracted attention in the 1950s and 1960s when Francis Rogallo developed a completely flexible kite, with no rigid supporting spars. Instead of spars, this kite uses the wind itself to hold it open and maintain its shape. Rogallo was an aeronautical engineer working for NASA. He was searching for a controllable recovery system for spacecraft. This kite was the first to be developed with the assistance of wind tunnel testing, and is an indication of how far kites have come since they were simply a child’s toy.

Today there is an experimental ship which uses a kite to supplement its power and to save fuel. Traction power kites offer some of the fastest growing sports in the world. These include power kiting activities such as kite surfing, kite buggies, snow kiting, land boarding and paragliding. These sports all relate to existing sports but use wind to power the vehicle.

Before you use a kite to ride, you need to learn to fly it. A two line kite is easy to learn to fly. One line is connected to a handle or bar, and, by pulling on the power lines, the kite will take off and rise. Pulling the brake lines causes the kite to come down and land. The “window” is the cone shaped area down wind in front of you. At the top of the window the kite flies high and to the sides it will fly lower.

A four line kite is needed for surfing, boarding, gliding, etc. The top two lines are connected to a handle or bar, and, by pulling on the power lines, the kite will take off and rise. Pulling the brake lines causes the kite to come down and land. Here are some basic safety rules that you should always follow:

- Do not attempt to learn power kiting without training
- Insure yourself with third party insurance
- Always wear safety protection (helmet and pads)
- Never fly near power lines, roads, airports, or trees
- Never fly in stormy weather
- Never touch the lines of a kite when under tension
- Never fly upwind of a group of people
- Never over estimate your own ability
- Use kite killers
- Never fly attached to a fixed point!

If you follow all these rules, you will also maximise your chances to have a great time flying your kites!
Although you will probably start with a small kite, you may soon want a larger or more powerful one. Here are some small kites suitable for a beginner, some of which will still be suitable as you progress to intermediate skills:

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rage</td>
<td>1.8</td>
<td>Buggy / Land Board</td>
</tr>
<tr>
<td>Cult</td>
<td>2.0</td>
<td>Buggy / Land Board</td>
</tr>
<tr>
<td>Hornet</td>
<td>2.0</td>
<td>Buggy / Land Board</td>
</tr>
<tr>
<td>Reactor</td>
<td>2.2</td>
<td>Buggy</td>
</tr>
<tr>
<td>Blurr</td>
<td>2.5</td>
<td>Buggy</td>
</tr>
<tr>
<td>Cult</td>
<td>2.5</td>
<td>Buggy / Land Board</td>
</tr>
<tr>
<td>Rage</td>
<td>2.5</td>
<td>Buggy</td>
</tr>
<tr>
<td>Reactor</td>
<td>2.9</td>
<td>Buggy</td>
</tr>
<tr>
<td>Hornet</td>
<td>3.0</td>
<td>Buggy / Land Board</td>
</tr>
</tbody>
</table>

For kite surfing you need a special surf board as well as a suitable kite. These are generally large in area, and need to be inflatable to float on the water. You will probably need at least two of the same type of kite. Once you can achieve exhilarating speeds over the water, you can then learn to jump and perform aerial acrobatics.

Talk to any kite surfer and they will all recommend that you get professional lessons before you take to the seas. Not only will this enhance your safety and that of others too, but it will give you the chance to try kite surfing without spending lots of money on kit you may not use. We help you to organise your holiday and suitable courses.

Here are some courses you might want to take:

<table>
<thead>
<tr>
<th>Learn to use your kite safely</th>
<th>Course</th>
<th>Level</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fly your first kite</td>
<td>Beginner</td>
<td>1 hour</td>
<td></td>
</tr>
<tr>
<td>Basic kite flying skills</td>
<td>Beginner</td>
<td>3 hours</td>
<td></td>
</tr>
<tr>
<td>Basic kite surfing techniques</td>
<td>Beginner</td>
<td>3 half days</td>
<td></td>
</tr>
<tr>
<td>Further kite surfing skills</td>
<td>Intermediate to Advanced</td>
<td>3 days</td>
<td></td>
</tr>
</tbody>
</table>

A kite buggy is a light, purpose-built vehicle powered by a traction kite (power kite). It is similar to a land yacht, but the driver steers the single front wheel with his feet, while he controls the kite, usually attached on a harness, with his arms. The speed achieved in kite buggies by skilled drivers can range up to around 110 km/h (70 mph), hence protective clothing, including a safety helmet, is commonly worn. The kite buggy was probably invented in China around the 13th century. It was introduced by George Pocock in the UK in 1827 and is now available commercially in the USA and UK since the late 1970s.

Warm air thermal currents are used to paraglide. The pilot who knows how to read the atmospheric conditions can soar into the sky and hang in the air for several hours. They may watch the birds of prey circling in the thermals and follow their lead. The experience is said to be extraordinary, with sounds of voices curiously clear above villages and the scents of pine forests carried up on the air. With all these sports you may take them up just for fun, or you may take part in competitions if you become serious. You might take up kite surfing at resorts in Egypt, or book a snow kiting holiday to Norway. You might kite with your buggy in the sand dunes of Dubai, or paraglide from the mountains in the USA.
The following chart indicates the growing popularity of kite sports:

![Kite Sports Popularity Chart]

**Chart**
- Placed here: 1 mark
- Correct data in vertical bar: 1 mark
- Accurate title: 1 mark
- Legend identifies years: 1 mark
- Category labels correct and fully visible: 1 mark

**No blank pages**
- No widows/orphans: 1 mark
- No split lists over columns/pages: 1 mark
- No split tables/charts: 1 mark
- Document complete/paragraphs intact: 1 mark

**New message**
- **Address:** design.h@cie.org.uk 1 mark
- **CC:**
  - Event Organiser XXXX 1 mark
  - kites.events@cie.org.uk 1 mark
- **Subject line:** Draft for Kite article 1 mark
- **Message text**
- **Candidate details and**
  - The document you need for approval is attached. 1 mark
- **Attachment present**
  - Document as saved by candidate 1 mark