

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the March 2016 series

**0417 INFORMATION AND COMMUNICATION
TECHNOLOGY**

0417/31

Paper 3 (Practical Test B), 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 should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the March 2016 series for most Cambridge IGCSE® and Cambridge International A and AS Level components.

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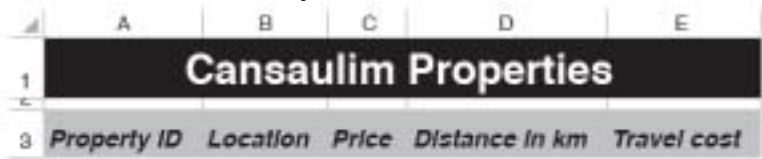
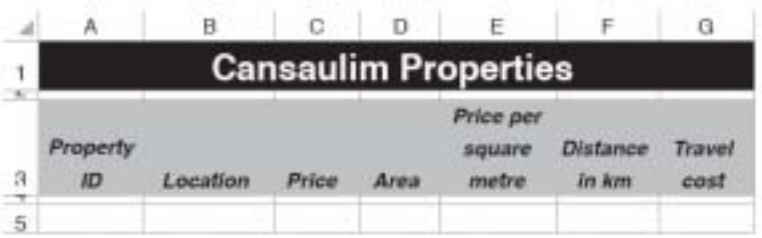
Page 3	Mark Scheme	Syllabus	Paper
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4	<p>Using the most appropriate image from m16img1.jpg to m16img8.jpg place in cell:</p> <ul style="list-style-type: none"> • C the image of a plot of land for sale • D the image of a builder making a wall • G the image of a beach front café • H the image of a Portuguese style house <p>4 correct insertions of image 3 correct insertions of image 0, 1 or 2 correct insertions of image</p>	<p>2 marks 1 mark 0 marks</p>	[2]
5	<p>Make sure appropriate text is displayed, if an image is not available.</p> <p>Appropriate text set for alt text attribute for all 5 images</p>	1 mark	[1]
6	<p>In cell:</p> <ul style="list-style-type: none"> • E enter the text Prime location building plots for sale • F enter the text Local construction workers • I enter the text Arossim beach front café for sale • J enter the text Portuguese colonial style house for sale <p>Set all this text as style h2.</p> <p>All 4 elements of text 100% correct All text set into style h2</p>	<p>1 mark 1 mark</p>	[2]
7	<p>In cell K enter the text: Web Design by Hothouse Design: Page last edited by: followed by your name, Centre number and candidate number.</p> <p>Set this text as style h3.</p> <p>Text 100% correct plus candidate details Text set into style h3</p>	<p>1 mark 1 mark</p>	[2]
8	<p>Centre align the table in the browser.</p> <p>Save the web page.</p> <p>Table centre aligned within browser window</p>	1 mark	[1]
9	<p>Make the text Hothouse Design a hyperlink to send an email message to hothouse-design@cie.org.uk with a subject line Make me a website!</p> <p>Anchor from text Hothouse-Design Href="mailto: hothouse-design@cie.org.uk ?subject= Make me a website!"</p>	<p>1 mark 1 mark 1 mark 1 mark 1 mark</p>	[5]
10	<p>Attach the stylesheet m16ss.css to the web page.</p> <p>Save the webpage.</p> <p>Stylesheet m16ss.css attached to webpage</p>	1 mark	[1]

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11	<p>The stylesheet has been created but needs to be improved using the most efficient syntax. Make sure your stylesheet contains no html.</p> <p>Open and examine the stylesheet m16ss.css in a suitable software package.</p> <p>Add the following to this stylesheet:</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <pre>h1, h2 and h3 Trebuchet if this is not available then Trebuchet MS if neither of these fonts are available, the browser's default sans-serif font. h3 a 24 point font.</pre> </div> <p>Add your name, Centre number and candidate number as a comment to your stylesheet. Save this stylesheet in your m16_html folder.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">h1, h2 and h3</td> <td style="width: 20%;"></td> </tr> <tr> <td>Trebuchet</td> <td style="text-align: right;">1 mark</td> </tr> <tr> <td>,"Trebuchet MS"</td> <td style="text-align: right;">1 mark</td> </tr> <tr> <td>,sans-serif</td> <td style="text-align: right;">1 mark</td> </tr> <tr> <td>h3</td> <td></td> </tr> <tr> <td>{font-size:24pt}</td> <td style="text-align: right;">1 mark</td> </tr> <tr> <td>table and td</td> <td></td> </tr> <tr> <td>{border:0}</td> <td style="text-align: right;">1 mark</td> </tr> <tr> <td>Use of table,td and h1,h2,h3 for efficient syntax for border-style</td> <td style="text-align: right;">1 mark</td> </tr> <tr> <td>Comment added with /* name */</td> <td style="text-align: right;">1 mark</td> </tr> </table>	h1, h2 and h3		Trebuchet	1 mark	,"Trebuchet MS"	1 mark	,sans-serif	1 mark	h3		{font-size:24pt}	1 mark	table and td		{border:0}	1 mark	Use of table,td and h1,h2,h3 for efficient syntax for border-style	1 mark	Comment added with /* name */	1 mark	[7]
h1, h2 and h3																						
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table and td																						
{border:0}	1 mark																					
Use of table,td and h1,h2,h3 for efficient syntax for border-style	1 mark																					
Comment added with /* name */	1 mark																					
12	<p>A website is tested before it is uploaded to the Internet. Describe how you would develop a test plan to test the hyperlinks, as part of a test strategy.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Identify each element to be tested</td> <td style="width: 20%; text-align: right;">1 mark</td> </tr> <tr> <td>For each test identify Expected output</td> <td style="text-align: right;">1 mark</td> </tr> <tr> <td>Test plan contains Actual output</td> <td style="text-align: right;">1 mark</td> </tr> <tr> <td>Test plan contains remedial action</td> <td style="text-align: right;">1 mark</td> </tr> </table>	Identify each element to be tested	1 mark	For each test identify Expected output	1 mark	Test plan contains Actual output	1 mark	Test plan contains remedial action	1 mark	[4]												
Identify each element to be tested	1 mark																					
For each test identify Expected output	1 mark																					
Test plan contains Actual output	1 mark																					
Test plan contains remedial action	1 mark																					
13	<p>Evaluate the webpage you have just created.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Bright colours within the page attract attention</td> <td style="width: 20%; text-align: right;">1 mark</td> </tr> <tr> <td>Magenta mask on background image makes reading text difficult</td> <td style="text-align: right;">1 mark</td> </tr> <tr> <td>Text under image/Alt text identifies the image</td> <td style="text-align: right;">1 mark</td> </tr> <tr> <td>Colour schemes do not look like professional company site</td> <td style="text-align: right;">1 mark</td> </tr> <tr> <td>Logo does not blend with background/has poor contrast between background and text</td> <td style="text-align: right;">1 mark</td> </tr> <tr> <td>Image of beach front café is taken from too far away</td> <td style="text-align: right;">1 mark</td> </tr> <tr> <td></td> <td style="text-align: right;">(Max 4 marks)</td> </tr> </table>	Bright colours within the page attract attention	1 mark	Magenta mask on background image makes reading text difficult	1 mark	Text under image/Alt text identifies the image	1 mark	Colour schemes do not look like professional company site	1 mark	Logo does not blend with background/has poor contrast between background and text	1 mark	Image of beach front café is taken from too far away	1 mark		(Max 4 marks)	[4]						
Bright colours within the page attract attention	1 mark																					
Magenta mask on background image makes reading text difficult	1 mark																					
Text under image/Alt text identifies the image	1 mark																					
Colour schemes do not look like professional company site	1 mark																					
Logo does not blend with background/has poor contrast between background and text	1 mark																					
Image of beach front café is taken from too far away	1 mark																					
	(Max 4 marks)																					

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14	<p>Create and format a spreadsheet that looks like this:</p>  <p>Save this spreadsheet with the file name m16_ and your Centre number and candidate number, e.g. m16_ZZ999_9999 Place an automated filename which includes the file path, on the left in the header.</p> <p>Row 1 A1 to E1 merged 1 mark Sans-serif centre aligned font 1 mark White text, largest font 1 mark Black background 1 mark</p> <p>Row 2 Row height less than half row 3 1 mark</p> <p>Row 3 Sans-serif left aligned font 1 mark Black, italic text 1 mark Light grey background 1 mark</p> <p>Sheet All column widths fully visible 1 mark Row and column headings visible (this and next printout) 1 mark Automated filename with file path placed on left in header 1 mark</p> <p style="text-align: right;">[11]</p>	
15	<p>Insert 2 new columns between columns C and D.</p> <p>Columns inserted as specified 1 mark</p>	[1]
16	<p>Edit the spreadsheet so it looks like this:</p>  <p>Row 3 Alignment changed from left to centre 1 mark Column widths narrowed 1 mark Text wrapped, 100% accurate, fully visible 1 mark</p> <p style="text-align: right;">[3]</p>	
17	<p>In cell E5 enter a formula to calculate the price per square metre which is the price divided by the area. Use a function to round this value to 0 decimal places.</p> <p>=ROUND() C5/D5 ,0 1 mark 1 mark 1 mark</p> <p style="text-align: right;">[3]</p>	

Page 6	Mark Scheme	Syllabus	Paper
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18	<p>In cell G5 enter a formula to calculate the travel cost to this property. This is 10 rupees plus:</p> <ul style="list-style-type: none"> • 7.5 if the distance is less than 6 • The distance multiplied by 1.5 if the distance is not less than 6 <p>Round the travel cost up to the next whole rupee.</p> <p>=ROUNDUP() 10+ IF() F5<6 ,7.5 ,F5*1.5 ,0</p>	<p>1 mark 1 mark 1 mark 1 mark 1 mark 1 mark 1 mark</p>	[7]										
19	<p>Complete the unfinished Test Plan in your Evidence Document:</p> <ul style="list-style-type: none"> ○ Replace the letters A and B with suitable headings ○ Choose 3 pieces of test data to test the formula used in step 18 ○ Complete the test table as you carry out the tests ○ Take screenshots from your tests and place these in the Test Plan. <p>Make sure that the test data and results are clearly visible.</p> <p>Cell reference and formula tested correct Headings Expected and Actual Outcome Test data selected 6, one above and one below Test data chosen is easy to calculate manually Reasons for choice of test data appropriate Expected output calculated correctly Screen shots of actual output shown</p>	<p>1 mark 1 mark 1 mark 1 mark 1 mark 3 marks 1 marks</p>	[9]										
20	<p>Apply appropriate formatting to row 5 of the spreadsheet</p> <p>Columns C, E and G only formatted to 2dp in rupees</p>	1 mark	[1]										
21	<p>Save and print the spreadsheet showing the formulae. Make sure:</p> <ul style="list-style-type: none"> • it fits on a single landscape page • the contents of all cells are fully visible. <p>Single landscape page and contents of all cells fully visible</p>	1 mark	[1]										
22	<p>Add the following property to your spreadsheet:</p> <table border="1" data-bbox="258 1626 1305 1731"> <thead> <tr> <th>Property ID</th> <th>Location</th> <th>Price</th> <th>Area</th> <th>Distance in km</th> </tr> </thead> <tbody> <tr> <td>CP1007</td> <td>Dona Paula, Panjim</td> <td>22000000</td> <td>171</td> <td>28.1</td> </tr> </tbody> </table> <p>Print the spreadsheet showing the values. Make sure:</p> <ul style="list-style-type: none"> • the printout fits on a single page • the contents of all cells are fully visible. <p>Printout fits on single page and contents of all cells are fully visible</p>	Property ID	Location	Price	Area	Distance in km	CP1007	Dona Paula, Panjim	22000000	171	28.1	1 mark	[1]
Property ID	Location	Price	Area	Distance in km									
CP1007	Dona Paula, Panjim	22000000	171	28.1									

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Question 11 – Evidence 1

h1,h2,h3	Trebuchet	1
	, "Trebuchet MS"	1
	, sans-serif	1
h3	font-size:24pt	1
table,td	{border:0}	1
	Use of table,td and h1,h2,h3 for efficient syntax for border-style	1
	Correct comment added with /* format */	1

```

m16ss.css - Notepad
File Edit Format View Help
body {background-image:url('m16bg.jpg');
background-color:#7c7d76}

h1 {font-weight:bold;
font-size:42px;
text-align:center}

h2 {font-size:30px;
text-align:center;
text-wrap:normal;
word-wrap:break-word;}

h3 {font-size:24pt}

h1,h2,h3 {font-family:Trebuchet,"Trebuchet MS", sans-serif}

table,td {border:0}

/* A Candidate, XX999 9999 */

```

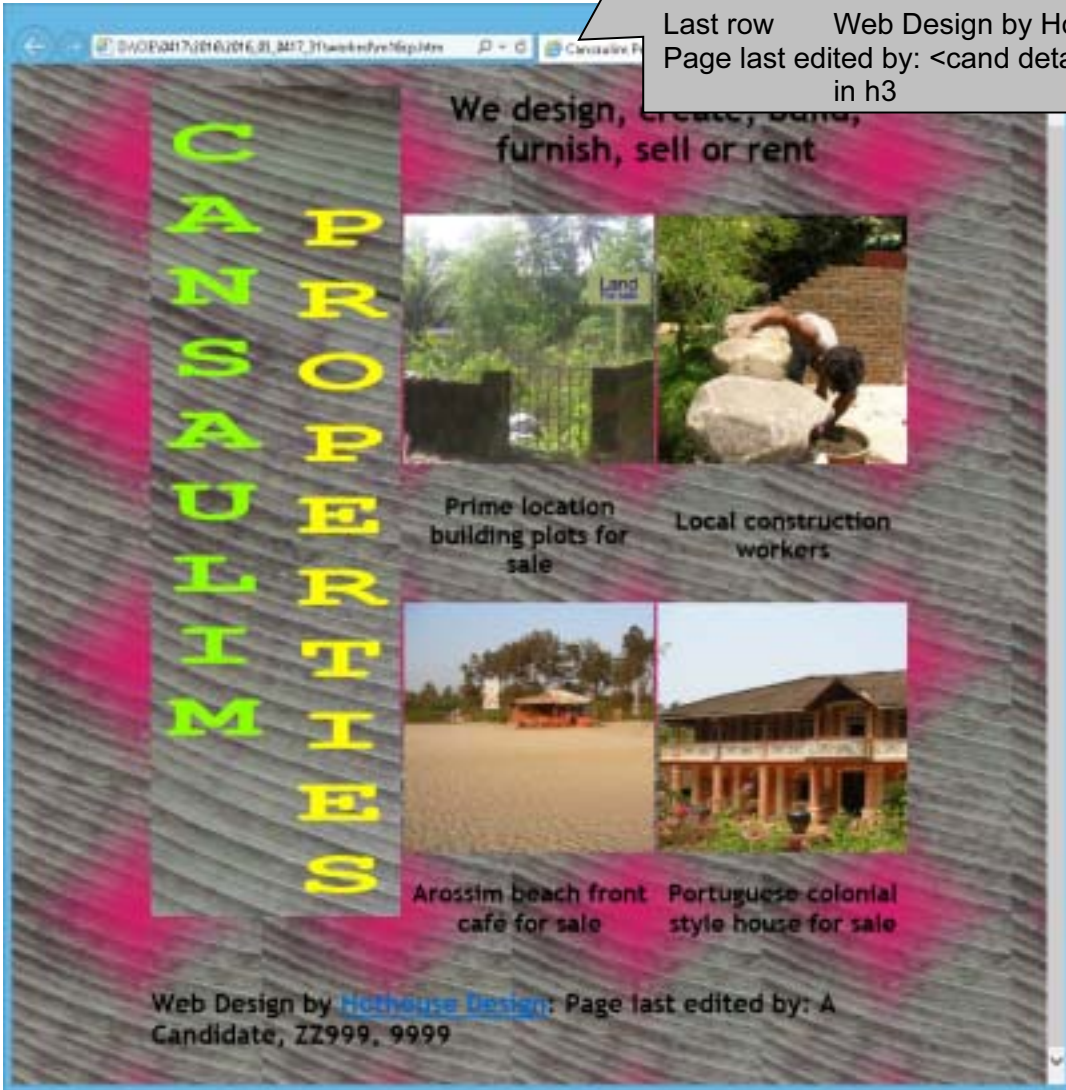
Question 12 – Evidence 2

- Identify each hyperlink to be tested 1 mark
- For each test identify Expected output 1 mark
- Test plan contains Actual output 1 mark
- Test plan contains remedial action/retest 1 mark

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Question 12 – Evidence 3

Browser view		
In browser with no letters vis		1
Table	borders not visible	1
Left cell	Cansaulim Properties logo	1
Top row	Text 100% correct	1
	in h1	1
	Images as shown	
	4 correct for 2 marks, 3 for 1	
	All 4 elements of text 100% correct	1
	in h2	1
Last row	Web Design by Hothouse Design:	
	Page last edited by: <cand details>	1
	in h3	1



Question 12 – Evidence 4

```

<!DOCTYPE html>
<html>
  <head>
    <link rel="stylesheet" type="text/css" href="m16ss.css">
    <title>Cansaulim Properties </title>
  </head>
  <body>

    <table style="margin-left:auto; margin-right:auto; width:900px;">

      <tr style="height:200px;">
        <td rowspan=5 style="width:300px;">
        </td>
        <td colspan=2 ><h1>We design, create, build, furnish, sell or
rent</h1>
        </td>
      </tr>
      <tr style="height:300px;">
        <td style="width:300px;">
          
        </td>
        <td style="width:300px;">
          
        </td>
      </tr>
      <tr style="height:100px;">
        <td>
          <h2>Prime location building plots for sale</h2>
        </td>
        <td>
          <h2>Local construction workers</h2>
        </td>
      </tr>
      <tr style="height:300px;">
        <td>
          
        </td>
        <td>
          
        </td>
      </tr>
      <tr style="height:100px;">
        <td>
          <h2>Arossim beach front café for sale</h2>
        </td>
        <td>
          <h2>Portuguese style colonial house for sale</h2>
        </td>
      </tr>

```

Stylesheet m16ss.css attached 1

Table centre aligned in the window Width:900px 1

Top row height:200px 1

Left cell rowspan=5 1

Top right colspan=2 1

Rows 2 and 4 height:300px 1

<td> 3 equal (300 pixels or 33%) cell widths

Rows 3 and 5 height:100px 1

Alt attribute appropriate alt text for all 5 images 1

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Row 6	height:80px colspan=3	1 1
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```

<tr style="height:80px;">
  <td colspan=3><h3>Web Design by <a href="mailto:hothouse-
design@cie.org.uk?subject=Make%20me%20a%20website!">Hothouse Design</a>:
Page last edited by: A Candidate, ZZ999, 9999</h3></td>
</tr>
</table>
</body>
</html>

```

Hyperlink	From Hothouse Design only	1
	href="mailto:	1
	hothouse-design@cie.org.uk	1
	?subject=	1
	Make me a website!"	1

Question 13 – Evidence 5
4 from:

- Bright colours within the page attract attention
- Magenta mask on background image makes reading text difficult
- Text under image/Alt text identifies the image
- Colour schemes do not look like professional company site
- Logo does not blend with background/has poor contrast between background and text
- Image of beach front café is taken from too far away

Max 4 marks

Question 14 – Evidence 6

Property ID	Location	Price	Distance in km	Travel cost
-------------	----------	-------	----------------	-------------

- Row 1 A1 to E1 merged 1
- Sans-serif centre aligned font 1
- White text, largest font 1
- Black background 1
- Row 2 Row height less than half row 3 1
- Row 3 Sans-serif left aligned font 1
- Black, italic text 1
- Light grey background 1
- Sheet All column widths fully visible 1

Question 16 – Evidence 7

Property ID	Location	Price	Area	Price per square metre	Distance in km	Travel cost
-------------	----------	-------	------	------------------------	----------------	-------------

- Columns 2 new columns inserted after C 1
- Row 3 Alignment changed from left to centre 1
- Column widths narrowed 1
- Text wrapped, 100% accurate fully visible 1

Both screen shots Row and column headings visible 1

Question 19 – Test Plan

Cell reference	G5								
Formula tested	=ROUNDUP(10+IF(F5<6,7.5,FF5+1.5),0)								
Test data	Why chosen	Expected outcome	Actual Outcome	Tested formula works Y/N	Remedial action				
5	Value below 6	18	<table border="1"> <thead> <tr> <th>Distance in km</th> <th>Travel cost</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>₹ 18.00</td> </tr> </tbody> </table>	Distance in km	Travel cost	5	₹ 18.00	Y	n/a
Distance in km	Travel cost								
5	₹ 18.00								
6	Value of test =6	19	<table border="1"> <thead> <tr> <th>Distance in km</th> <th>Travel cost</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>₹ 19.00</td> </tr> </tbody> </table>	Distance in km	Travel cost	6	₹ 19.00	Y	n/a
Distance in km	Travel cost								
6	₹ 19.00								
10	Value above 6 & easy to calculate	25	<table border="1"> <thead> <tr> <th>Distance in km</th> <th>Travel cost</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>₹ 25.00</td> </tr> </tbody> </table>	Distance in km	Travel cost	10	₹ 25.00	Y	n/a
Distance in km	Travel cost								
10	₹ 25.00								

- Cell reference & formula tested correct 1
- Headings Expected and Actual Outcome 1

- Test data selected 6, above and below 1
- Test data easy to calculate manually 1
- Reasons for choice of test data appropriate 1
- Calcs correct Expected output 3
- Screen shots of actual output shown 1

Header Auto filename and path on left 1

Cansaulim Properties						
Property ID	Location	Price	Area	Price per square metre	Distance in km	Travel cost
CP1007	Dona Paula, Panjim	22000000	171	=ROUND(C5/D5,0)	28.1	=ROUNDUP(10+IF(F5<6,7.5,F5*1.5),0)

Price per square metre

=ROUND()	1
C5/D5	1
,0	1

Travel cost

=ROUNDUP()	1
10+	1
IF()	1
F5<6	1
,7.5	1
,F5*1.5	1
,0	1

Printout single landscape page and formulae fully visible 1

Cansaulim Properties						
Property ID	Location	Price	Area	Price per square metre	Distance in km	Travel cost
CP1007	Dona Paula, Panjim	₹ 22,000,000.00	171	₹ 128,655.00	28.1	₹ 53.00

Format Columns C,E,G only in rupees to 2dp 1
 Printout single page and fully visible 1