



**Cambridge Assessment International Education**  
Cambridge International General Certificate of Secondary Education

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**INFORMATION AND COMMUNICATION TECHNOLOGY**

**0417/03**

Paper 3 Practical Test B

**October/November 2017**

MARK SCHEME

Maximum Mark: 80

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**Published**

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.

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This document consists of **13** printed pages.

Header **Cruise ship analysis** – left aligned and  
 Name, Centre, cand nos - right aligned 1 mark  
 Footer **Last edited on ... at ...**- centre aligned 1 mark  
 automated date & time 1 mark

Destination VLOOKUP used 1 mark  
 Correct relative reference – A4 1 mark  
 External file 173location.csv 1 mark  
 Correct range \$A\$2:\$B\$214 1 mark  
 Correct return column - 2 1 mark  
 ,FALSE 1 mark

Cruise ship analysis

Cruise Passengers 2015 & 2014							
2014							
Dcode	Destination	Period	Months	Visitors for this period	Average visitors/month	Visitors for this period	% change
Ant	=VLOOKUP(A4,'173location.csv'!\$A\$2:\$B\$214,2,FALSE)	Jan-Mar	3	320401	=INT(E4/D4)	270262	=(E4-G4)/G4
Aru	=VLOOKUP(A5,'173location.csv'!\$A\$2:\$B\$214,2,FALSE)	Jan-Mar	3	214988	=INT(E5/D5)	258408	=(E5-G5)/G5
Bri	=VLOOKUP(A10,'173location.csv'!\$A\$2:\$B\$214,2,FALSE)	Jan-Mar	3	258623	=INT(E6/D6)	1377043	=(E6-G6)/G6
Cay	=VLOOKUP(A11,'173location.csv'!\$A\$2:\$B\$214,2,FALSE)	Jan-Apr	4	719298	=INT(E11/D11)		
Coz	=VLOOKUP(A12,'173location.csv'!\$A\$2:\$B\$214,2,FALSE)	Jan-Apr	4	1455974	=INT(E12/D12)		
Cur	=VLOOKUP(A13,'173location.csv'!\$A\$2:\$B\$214,2,FALSE)	Jan-Apr	4	264521	=INT(E13/D13)		
Dom	=VLOOKUP(A14,'173location.csv'!\$A\$2:\$B\$214,2,FALSE)	Jan-Mar	3	148635	=INT(E14/D14)		
Dre	=VLOOKUP(A15,'173location.csv'!\$A\$2:\$B\$214,2,FALSE)	Jan-Apr	4	238811	=INT(E15/D15)	259079	=(E15-G15)/G15
Gm	=VLOOKUP(A16,'173location.csv'!\$A\$2:\$B\$214,2,FALSE)	Jan-Mar	3	133072	=INT(E16/D16)	125461	=(E16-G16)/G16
Jam	=VLOOKUP(A17,'173location.csv'!\$A\$2:\$B\$214,2,FALSE)	Jan-Apr	4	654407	=INT(E17/D17)	588691	=(E17-G17)/G17
Mrq	=VLOOKUP(A18,'173location.csv'!\$A\$2:\$B\$214,2,FALSE)	Jan-Apr	4	167610	=INT(E18/D18)	114285	=(E18-G18)/G18
Pue	=VLOOKUP(A19,'173location.csv'!\$A\$2:\$B\$214,2,FALSE)	Jan-Mar	3	526428	=INT(E19/D19)	417011	=(E19-G19)/G19
Slu	=VLOOKUP(A20,'173location.csv'!\$A\$2:\$B\$214,2,FALSE)	Jan-Apr	4	351717	=INT(E20/D20)	322973	=(E20-G20)/G20
StV	=VLOOKUP(A21,'173location.csv'!\$A\$2:\$B\$214,2,FALSE)	Jan-Apr	4	52219	=INT(E21/D21)		
UVI	=VLOOKUP(A22,'173location.csv'!\$A\$2:\$B\$214,2,FALSE)	Jan-Apr	4	842988	=INT(E22/D22)		

F4 E4 1 mark  
 /D4 1 mark  
 INT(...) or ROUNDDOWN(...,0) 1 mark

% change Correct cells identified – E4 and G4 1 mark  
 (E4-G4) includes brackets 1 mark  
 /G4 1 mark

Printout Landscape, fully visible 1 mark  
 Row & Column headings displayed 1 mark  
 Replication All 3 formulae 1 mark

**PUBLISHED**

Top row Merge cells A1 to H1 1 mark  
 Right aligned with a red, 20 point, sans-serif font 1 mark  
 Pale blue background 1 mark

Cruise ship analysis

A Candidate ZZ999 9999

### Cruise Passenger Arrivals - 2015 & 2014

Dcode	Destination	Period	Months	2015		2014		% change
				Visitors for this period	Average	Visitors for this period		
Ant	Antigua and Barbuda	Jan-Mar	3	320,000	106,667	270,262	83,421	18.6%
Aru	Aruba	Jan-Mar	3	258,408	86,136	258,408	86,136	-16.8%
Bah	Bahamas	Jan-Mar	3	18,718	6,239	25,433	8,479	-26.4%
Bar	Barbados	Jan-Feb	2	211,543	105,771	243,453	121,726	-13.1%
Blz	Belize	Jan-Apr	4	719,298	179,824	677,663	169,416	6.1%
Ber	Bermuda	Jan-Apr	4	1,455,974	363,993	1,357,701	339,425	7.2%
Bri	British Virgin Islands	Jan-Mar	3	264,521	88,174	295,373	98,458	-10.4%
Cay	Cayman Islands	Jan-Mar	3	148,635	49,545	165,222	55,074	-10.0%
Coz	Cozumel (Mexico)	Jan-Apr	4	238,811	59,702	259,079	64,770	-7.8%
Cur	Curacao	Jan-Apr	4	133,072	44,357	125,461	31,368	6.1%
Dom	Dominica	Jan-Mar	3	654,407	218,136	588,691	196,230	11.2%
Dre	Dominican Republic	Jan-Apr	4	167,610	41,902	114,285	28,564	46.7%
Grn	Grenada	Jan-Mar	3	526,428	175,476	417,011	139,004	26.2%
Jam	Jamaica	Jan-Apr	4	351,717	87,929	322,973	80,743	8.9%
Mrq	Martinique	Jan-Apr	4	52,219	13,054	54,853	13,713	-4.8%
Pue	Puerto Rico	Jan-Mar	3	842,988	280,996	880,318	293,439	-4.2%
Slu	Saint Lucia	Jan-Apr	4					
StV	St. Vincent & the Grenadines	Jan-Apr	4					
UWI	U S Virein Islands	Jan-Apr	4					

Row 2 Centre G2 & merge & centre E2 to F2 1 mark  
 Black 16pt sans-serif font 1 mark

Formatting Average visitors/ month as integer 1 mark  
 % change column as % with 0,1 or 2 dp 1 mark  
 Row 3 Enhanced in some way (column heads) 1 mark  
 Printout Single portrait page, fully visible, no row or column headings 1 mark

Cruise ship analysis

A Candidate Z2999 9999

**Cruise Passenger Arrivals - 2015 & 2014**

Dcode	Destination	Period	Months	2015		2014		% change
				Visitors for this period	Average visitors/month	Visitors for this period		
Ant	Antigua and Barbuda	Jan-Mar	3	320,401	106,800	270,262	18.6%	
Anu	Aruba	Jan-Mar	3	214,991	71,663	238,408	-16.8%	
Bah	Bahamas	Jan-Mar	3	1,358,623	452,874	1,377,043	-1.3%	
Bar	Barbados	Jan-Mar	3	216,561	72,187	161,811	33.8%	
Bbz	Belize	Jan-Apr	4	447,250	111,812	426,406	4.9%	
Ber	Bermuda	Jan-Apr	4	18,718	4,679	25,433	-26.4%	
Bri	British Virgin Islands	Jan-Apr	4	280,000	70,000	243,453	15.0%	
Cay	Cayman Islands	Jan-Apr	4	719,298	179,824	677,663	6.1%	
Coz	Cozumel (Mexico)	Jan-Apr	4	1,455,974	363,993	1,357,701	7.2%	
Cur	Curacao	Jan-Apr	4	264,521	66,130	295,373	-10.4%	
Dom	Dominica	Jan-Mar	3	148,635	49,545	165,222	-10.0%	
Dre	Dominican Republic	Jan-Apr	4	238,811	59,702	259,079	-7.8%	
Grn	Grenada	Jan-Mar	3	133,072	44,357	125,461	6.1%	
Jam	Jamaica	Jan-Apr	4	654,407	163,601	588,691	11.2%	
Mrt	Martinique	Jan-Apr	4	167,610	41,902	114,285	46.7%	
Pue	Puerto Rico	Jan-Mar	3	526,428	175,476	417,011	26.2%	
Slu	Saint Lucia	Jan-Apr	4	351,717	87,929	322,973	8.9%	
StV	St. Vincent & the Grenadines	Jan-Apr	4	52,219	13,054	54,853	-4.8%	
UVI	U.S. Virgin Islands	Jan-Apr	4	842,988	210,747	880,318	-4.2%	

Period	Barbados Jan-Mar & BVI Jan-Apr	1 mark
Months	Barbados 3 & BVI 4	1 mark
2015 visitors	Barbados 216561 & BVI 280000	1 mark

Last edited on 17/10/2017 at 09:46

**Step 17 – Part I**

	D	E
24	Total visitors to all destinations in 2015	=SUM(E4:E22)
25	Average visitors to each destination in 2015	=AVERAGE(E4:E22)
26	Visitors to the most popular destination in 2015	=MAX(E4:E22)
27	Name of the most popular destination in 2015	=VLOOKUP(E26,E4:I22,5,FALSE)

**Step 17 – Part 2**

	I
4	=B4
5	=B5
6	=B6
7	=B7
8	=B8
9	=B9
10	=B10
11	=B11
12	=B12
13	=B13
14	=B14
15	=B15
16	=B16
17	=B17
18	=B18
19	=B19
20	=B20
21	=B21
22	=B22

E24 is =SUM(E4:E22) accept abs or relative refs 1 mark  
 E25 is =AVERAGE(E4:E22) 1 mark  
 E26 is =MAX(E4:E22) 1 mark  
 E27 is =VLOOKUP(E26, ...) 1 mark  
 Correct range E4:I22, may be absolute or relative referencing 1 mark  
 ,5,FALSE 1 mark  
 Appropriate labels for all 4 cells... 1 mark  
 ...including a reference to 2015 for each cell 1 mark  
 Ranges D24:E27 and I4:I22 visible with row & column headings 1 mark

I4 =B4 & replicate 1 mark

**Step 18**

Cruise ship analysis

A Candidate Z2999 9999

**Cruise Passenger Arrivals - 2015 & 2014**

Dcode	Destination	Period	Months	2015		2014		% change
				Visitors for this period	Average visitors/month	Visitors for this period		
Ant	Antigua and Barbuda	Jan-Mar	3	320,401	106,800	270,262	18.0%	Antigua and Barbuda
Aru	Aruba	Jan-Mar	3	214,991	71,663	258,408	-10.8%	Aruba
Bah	Bahamas	Jan-Mar	3	1,358,623	452,874	1,377,043	-1.3%	Bahamas
Bar	Barbados	Jan-Mar	3	216,561	72,187	161,811	33.8%	Barbados
Biz	Belize	Jan-Apr	4	447,250	111,812	426,406	4.9%	Belize
Ber	Bermuda	Jan-Apr	4	18,718	4,679	25,433	-26.4%	Bermuda
Bri	British Virgin Islands	Jan-Apr	4	280,000	70,000	243,453	15.0%	British Virgin Islands
Cay	Cayman Islands	Jan-Apr	4	719,298	179,824	677,663	6.1%	Cayman Islands
Coz	Cozumel (Mexico)	Jan-Apr	4	1,455,974	363,993	1,357,701	7.2%	Cozumel (Mexico)
Cur	Curacao	Jan-Apr	4	264,521	66,130	295,373	-10.4%	Curacao
Dom	Dominica	Jan-Mar	3	148,635	49,545	165,222	-10.0%	Dominica
Dre	Dominican Republic	Jan-Apr	4	238,811	59,702	259,079	-7.8%	Dominican Republic
Gren	Grenada	Jan-Mar	3	133,072	44,357	125,461	6.1%	Grenada
Jam	Jamaica	Jan-Apr	4	654,407	163,601	588,691	11.2%	Jamaica
Mrt	Martinique	Jan-Apr	4	167,610	41,902	114,285	46.7%	Martinique
Pue	Puerto Rico	Jan-Mar	3	526,428	175,476	417,011	26.2%	Puerto Rico
StL	Saint Lucia	Jan-Apr	4	351,717	87,929	322,973	8.9%	Saint Lucia
StV	St. Vincent & the Grenadines	Jan-Apr	4	52,219	13,054	54,853	-4.8%	St. Vincent & the Grenadines
UVI	U S Virgin Islands	Jan-Apr	4	842,988	210,747	880,318	-4.2%	U S Virgin Islands

Total visitors to all destinations in 2015 8,412,224  
 Average visitors to each destination in 2015 442,749  
 Visitors to the most popular destination in 2015 1,455,974  
 Name of the most popular destination in 2015 Cozumel (Mexico)

4 correct values

1 mark



**Cruise Passenger Arrivals - 2015 & 2014**

Dcode	Destination	Period	Months	2015		2014		% change
				Visitors for this period	Average visitors/month	Visitors for this period		
Bar	Barbados	Jan-Mar	3	216,561	72,187	161,811	33.8%	Barbados
Pue	Puerto Rico	Jan-Mar	3	526,428	175,476	417,011	26.2%	Puerto Rico
Ant	Antigua and Barbuda	Jan-Mar	3	320,401	106,800	270,262	18.6%	Antigua and Barbuda
Grn	Grenada	Jan-Mar	3	133,072	44,357	125,461	6.1%	Grenada
Bah	Bahamas	Jan-Mar	3	1,358,623	452,874	1,377,043	-1.3%	Bahamas
Dom	Dominica	Jan-Mar	3	148,635	49,545	165,222	-10.0%	Dominica
Aru	Aruba	Jan-Mar	3	214,991	71,663	258,408	-16.8%	Aruba
Total visitors to all destinations in 2015				8,412,224				
Average visitors to each destination in 2015				442,749				
Visitors to the most popular destination in 2015				1,455,974				
Name of the most popular destination in 2015				Cozumel (Mexico)				

**Step 19**

Search	Months = 3	1 mark
Sort	Descending on percentage change	1 mark

**Evidence document****Evidence 1**

After a website has been created it will be tested. Identify two factors that must be considered when designing an effective test plan.  
2 from:

**The purpose of the website**

**The target audience**

**Corporate house styles**

**Describe each item that needs to be tested**

**Identify inputs (data to be entered)**

**Identify expected outcomes**

1 mark each – Max 2

**Evidence 2**

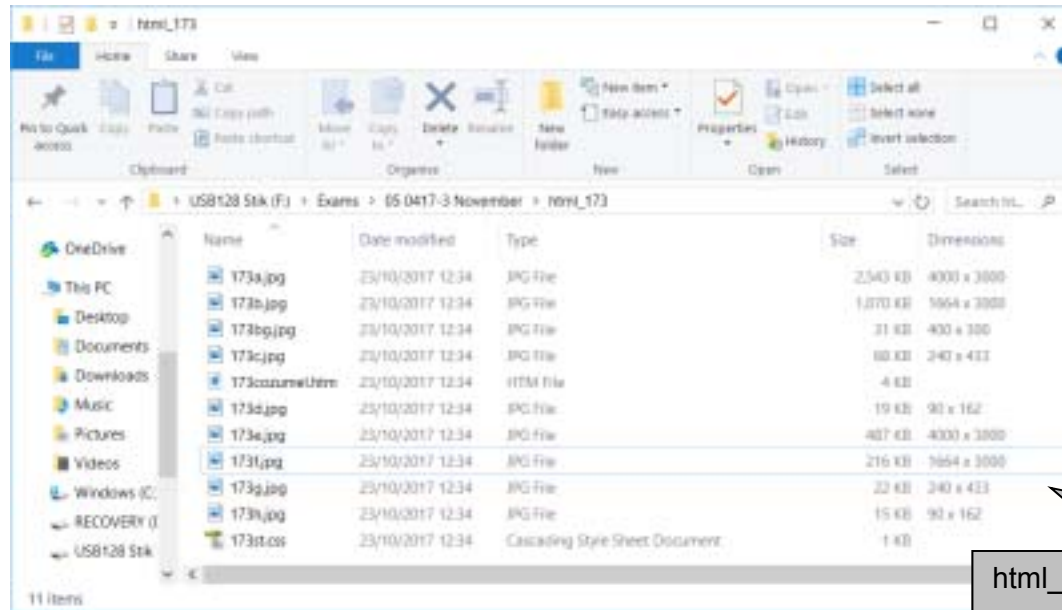
Identify two methods of testing a web page:

**Functional testing / alpha testing / in-house**

1 mark each – Max 2



## Evidence 3



html\_173

Correct files and details fully visible

1 mark

## Evidence 4

4 from:

**Placeholder dimensions are 250 pixels wide.****Placeholder is in portrait orientation.****Images A and E rejected as they have a landscape orientation****Image A is saved at maximum resolution which is not needed for a web page****Images B and F are too large for the placeholder****Images D and H are too small for the placeholder**

1 mark each – Max 4

**Evidence 5**

```

173st.css - Notepad
File Edit Format View Help
/* A Candidate, ZZ999, 9999 */

h1      {font-family:Arial,Calibri,sans-serif;
        color:#ff0000;
        text-align:center}

p       {text-align:justify}

body    {background-image: url('173bg.jpg');
        background-repeat: repeat}

table   {background-color:#99bbdd;}

table,td {border:0}

td      {padding:10px}
    
```

Comments	Name and numbers at top	1 mark
h1	,sans-serif added to font- family	1 mark
	color: set to #ff0000	1 mark
	text-align:center	1 mark
p	text-align:justify	1 mark
body	Correct syntax for placement & tiling of image	1 mark
table	background-color:#99bbdd;	1 mark
	border:0	1 mark
td	padding:10px;	1 mark
CSS syntax	Must have ; between properties	1 mark

Evidence 6

Styles	Attached external stylesheet works	1 mark
Cand details	inserted in correct place	1 mark
Image	Background image applied	1 mark

## Evidence 7

```
<!DOCTYPE html>
<html>
<head>
  <title>CTB homepage</title>
  <link rel="stylesheet" type="text/css" href="173st.css">
</head>
<body>
```

Title	CTB homepage	1 mark
	html, head and body syntax correct	1 mark
Styles	Correct stylesheet in head section	1 mark

ID set	Tag containing appropriate tag id or name	1 mark
--------	-------------------------------------------	--------

```
<div id="top"></div>
<table style="margin-left:auto; margin-right:auto; width:800px">
  <tr>
    <td colspan=2><h1>Cozumel - Mexico's Cruise Ship Paradise</h1>
  </td>
  </tr>
  <tr>
    <td colspan=2 style="height:50px"><h2>Website of the Cozumel Tourist Board</h2><h3>Website last edited
by:&nbsp;  A Candidate, ZZ999, 9999</h3>
  </td>
  </tr>
  <tr>
    <td style="width:250px; height:443px">
      <h1></h1>
    </td>
```

Space	&nbsp;	1 mark
-------	--------	--------

Image	Image g selected	1 mark
	Appropriate alternate text added	1 mark

```
<td><h2>Paradise Island?</h2><p>This jewel between the Caribbean and the Atlantic has everything you
want for a holiday destination. The lack of potable (drinkable) water on the island means that it is
unlikely to be developed more than it is. It hosts just a small town, the 'capital', San Miguel and one
village plus a small number of hotels scattered along its western coastline.</p><p>Whilst a small part of
San Miguel is the 'gringo friendly' tourist area, designed to cater for the significant number of cruise
ship visitors, most of the island retains its quiet cool and genuine authenticity. Garages still have
shrines to the Virgin, there's a spirited Caribbean pathos, and of course there are some tourist things to
do - such as diving and snorkelling on some of the best reefs in the world.</p><p>While diving and
snorkeling are the main draws, the pleasant town square is a nice place to spend the afternoon, and it's
highly gratifying to explore the less-visited parts of the island in a rented Jeep. Beware though, outside
```

the built up areas is true jungle and swampland. The southern tip 'Punta Sur', has a magnificent lighthouse and a sanctuary for the wild (and native) salt water crocodiles. The coastal road leads to San Gervasio small Mayan ruins, a marine park and captivating scenery along the unforgettable windswept Atlantic shore.

Watch baby turtles hatching on the beach or the impressive Iguana lazily eying you from the trees or basking in the sun.

&lt;/td&gt;

&lt;/tr&gt;

&lt;tr&gt;

<td colspan="2"><h2>Palancar reefs</h2><p>Whilst there are many reefs suited to sailing, snorkelling and diving, Palancar reef is by far the best, made famous by Jacques Cousteau in the 1960s. Cousteau said that "Palancar Reef is the most beautiful place on Earth ... even though it's beneath the water".</p> <p>One recent visitor is quoted as saying "This is the reef popularized by Jacques Cousteau in the 1960s. He and his team invented much of the SCUBA equipment and techniques used today. It is a WONDERFUL place to dive. We saw turtles up close and personal every day; lobsters, crabs, nurse sharks, reef sharks, and my favourite, spotted eagle rays in groups slowly flapping their wings to stay stationary in the current. It is mesmerizing. The Palancar Gardens and Santa Rosa Wall are the best dives in my opinion, but you really can't go wrong on any of the well-known sites."</p>

&lt;/tr&gt;

&lt;tr&gt;

Anchor	from <b>Click on this link</b>	1 mark
	To #anchor name/ID at top	1 mark

<td colspan=2><h3><a href="#top">Click on this link</a> for the top of the page, here to contact the

<a href="http://www.hothouse-design.co.uk/CTB"> from text <b>CTB</b>	1 mark
----------------------------------------------------------------------	--------

<a href="http://www.hothouse-design.co.uk/CTB">CTB</a>, or click here to <a href="mailto:webdesign@hothouse-design.co.uk?subject=My%20question">email our design team</a>.</h3>

&lt;/td&gt;

&lt;/tr&gt;

&lt;/table&gt;

&lt;/body&gt;

&lt;/html&gt;

Anchor from <b>email our design team</b>	1 mark
href ="mailto:	1 mark
webdesign@hothouse-design.co.uk	1 mark
?subject=	1 mark
My%20question"	1 mark